

# Exam Questions AWS-Solution-Architect-Associate

AWS Certified Solutions Architect - Associate

<https://www.2passeasy.com/dumps/AWS-Solution-Architect-Associate/>



#### NEW QUESTION 1

You have set up an Auto Scaling group. The cool down period for the Auto Scaling group is 7 minutes. The first instance is launched after 3 minutes, while the second instance is launched after 4 minutes. How many minutes after the first instance is launched will Auto Scaling accept another scaling actMty request?

- A. 11 minutes
- B. 7 minutes
- C. 10 minutes
- D. 14 minutes

**Answer:** A

**Explanation:** If an Auto Scaling group is launching more than one instance, the cool down period for each instance starts after that instance is launched. The group remains locked until the last instance that was launched has completed its cool down period. In this case the cool down period for the first instance starts after 3 minutes and finishes at the 10th minute (3+7 cool down), while for the second instance it starts at the 4th minute and finishes at the 11th minute (4+7 cool down). Thus, the Auto Scaling group will receive another request only after 11 minutes.

Reference: [http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AS\\_Concepts.html](http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AS_Concepts.html)

#### NEW QUESTION 2

In the context of AWS support, why must an EC2 instance be unreachable for 20 minutes rather than allowing customers to open tickets immediately?

- A. Because most reachability issues are resolved by automated processes in less than 20 minutes
- B. Because all EC2 instances are unreachable for 20 minutes every day when AWS does routine maintenance
- C. Because all EC2 instances are unreachable for 20 minutes when first launched
- D. Because of all the reasons listed here

**Answer:** A

**Explanation:** An EC2 instance must be unreachable for 20 minutes before opening a ticket, because most reachability issues are resolved by automated processes in less than 20 minutes and will not require any action on the part of the customer. If the instance is still unreachable after this time frame has passed, then you should open a case with support.

Reference: <https://aws.amazon.com/premiumsupport/faqs/>

#### NEW QUESTION 3

To specify a resource in a policy statement, in Amazon EC2, can you use its Amazon Resource Name (ARN)?

- A. Yes, you can.
- B. No, you can't because EC2 is not related to ARN.
- C. No, you can't because you can't specify a particular Amazon EC2 resource in an IAM policy.
- D. Yes, you can but only for the resources that are not affected by the action

**Answer:** A

**Explanation:** Some Amazon EC2 API actions allow you to include specific resources in your policy that can be created or modified by the action. To specify a resource in the statement, you need to use its Amazon Resource Name (ARN).

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-ug.pdf>

#### NEW QUESTION 4

After you recommend Amazon Redshift to a client as an alternative solution to paying data warehouses to analyze his data, your client asks you to explain why you are recommending Redshift. Which of the following would be a reasonable response to his request?

- A. It has high performance at scale as data and query complexity grows.
- B. It prevents reporting and analytic processing from interfering with the performance of OLTP workloads.
- C. You don't have the administrative burden of running your own data warehouse and dealing with setup, durability, monitoring, scaling, and patching.
- D. All answers listed are a reasonable response to his QUESTION

**Answer:** D

**Explanation:** Amazon Redshift delivers fast query performance by using columnar storage technology to improve I/O efficiency and parallelizing queries across multiple nodes. Redshift uses standard PostgreSQL JDBC and ODBC drivers, allowing you to use a wide range of familiar SQL clients. Data load speed scales linearly with cluster size, with integrations to Amazon S3, Amazon DynamoDB, Amazon Elastic MapReduce, Amazon Kinesis or any SSH-enabled host.

AWS recommends Amazon Redshift for customers who have a combination of needs, such as: High performance at scale as data and query complexity grows  
Desire to prevent reporting and analytic processing from interfering with the performance of OLTP workloads

Large volumes of structured data to persist and query using standard SQL and existing BI tools  
Desire to the administrative burden of running one's own data warehouse and dealing with setup, durability, monitoring, scaling and patching

Reference: [https://aws.amazon.com/running\\_databases/#redshift\\_anchor](https://aws.amazon.com/running_databases/#redshift_anchor)

#### NEW QUESTION 5

One of the criteria for a new deployment is that the customer wants to use AWS Storage Gateway. However you are not sure whether you should use gateway-cached volumes or gateway-stored volumes or even what the differences are. Which statement below best describes those differences?

- A. Gateway-cached lets you store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally
- B. Gateway-stored enables you to configure your on-premises gateway to store all your data locally and then asynchronously back up point-in-time snapshots of

this data to Amazon S3.

C. Gateway-cached is free whilst gateway-stored is not.

D. Gateway-cached is up to 10 times faster than gateway-stored.

E. Gateway-stored lets you store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally.

F. Gateway-cached enables you to configure your on-premises gateway to store all your data locally and then asynchronously back up point-in-time snapshots of this data to Amazon S3.

**Answer:** A

**Explanation:** Volume gateways provide cloud-backed storage volumes that you can mount as Internet Small Computer System Interface (iSCSI) devices from your on-premises application servers. The gateway supports the following volume configurations:

Gateway-cached volumes — You store your data in Amazon Simple Storage Service (Amazon S3) and retain a copy of frequently accessed data subsets locally.

Gateway-cached volumes offer a substantial cost savings on primary storage and minimize the need to scale your storage on-premises. You also retain low-latency access to your frequently accessed data.

Gateway-stored volumes — If you need low-latency access to your entire data set, you can configure your on-premises gateway to store all your data locally and then asynchronously back up point-in-time snapshots of this data to Amazon S3. This configuration provides durable and inexpensive off-site backups that you can recover to your local data center or Amazon EC2. For example, if you need replacement capacity for disaster recovery, you can recover the backups to Amazon EC2.

Reference: <http://docs.aws.amazon.com/storagegateway/latest/userguide/volume-gateway.html>

#### NEW QUESTION 6

A user is launching an EC2 instance in the US East region. Which of the below mentioned options is recommended by AWS with respect to the selection of the availability zone?

A. Always select the AZ while launching an instance

B. Always select the US-East-1-a zone for HA

C. Do not select the AZ; instead let AWS select the AZ

D. The user can never select the availability zone while launching an instance

**Answer:** C

**Explanation:** When launching an instance with EC2, AWS recommends not to select the availability zone (AZ). AWS specifies that the default Availability Zone should be accepted. This is because it enables AWS to select the best Availability Zone based on the system health and available capacity. If the user launches additional instances, only then an Availability Zone should be specified. This is to specify the same or different AZ from the running instances.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

#### NEW QUESTION 7

A user is storing a large number of objects on AWS S3. The user wants to implement the search functionality among the objects. How can the user achieve this?

A. Use the indexing feature of S3.

B. Tag the objects with the metadata to search on that.

C. Use the query functionality of S3.

D. Make your own DB system which stores the S3 metadata for the search functionality

**Answer:** D

**Explanation:** In Amazon Web Services, AWS S3 does not provide any query facility. To retrieve a specific object the user needs to know the exact bucket / object key. In this case it is recommended to have an own DB system which manages the S3 metadata and key mapping.

Reference: [http://media.amazonwebservices.com/AWS\\_Storage\\_Options.pdf](http://media.amazonwebservices.com/AWS_Storage_Options.pdf)

#### NEW QUESTION 8

After setting up a Virtual Private Cloud (VPC) network, a more experienced cloud engineer suggests that to achieve low network latency and high network throughput you should look into setting up a placement group. You know nothing about this, but begin to do some research about it and are especially curious about its limitations. Which of the below statements is wrong in describing the limitations of a placement group?

A. Although launching multiple instance types into a placement group is possible, this reduces the likelihood that the required capacity will be available for your launch to succeed.

B. A placement group can span multiple Availability Zones.

C. You can't move an existing instance into a placement group.

D. A placement group can span peered VPCs

**Answer:** B

**Explanation:** A placement group is a logical grouping of instances within a single Availability Zone. Using placement groups enables applications to participate in a low-latency, 10 Gbps network. Placement groups are recommended for applications that benefit from low network latency, high network throughput, or both. To provide the lowest latency, and the highest packet-per-second network performance for your placement group, choose an instance type that supports enhanced networking.

Placement groups have the following limitations:

The name you specify for a placement group a name must be unique within your AWS account. A placement group can't span multiple Availability Zones.

Although launching multiple instance types into a placement group is possible, this reduces the likelihood that the required capacity will be available for your launch to succeed. We recommend using the same instance type for all instances in a placement group.

You can't merge placement groups. Instead, you must terminate the instances in one placement group, and then relaunch those instances into the other placement group.

A placement group can span peered VPCs; however, you will not get full-bisection bandwidth between instances in peered VPCs. For more information about VPC peering connections, see VPC Peering in the Amazon VPC User Guide.

You can't move an existing instance into a placement group. You can create an AM from your existing instance, and then launch a new instance from the AMI into a placement group.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

#### NEW QUESTION 9

What is a placement group in Amazon EC2?

- A. It is a group of EC2 instances within a single Availability Zone.
- B. It the edge location of your web content.
- C. It is the AWS region where you run the EC2 instance of your web content.
- D. It is a group used to span multiple Availability Zone

**Answer:** A

**Explanation:** A placement group is a logical grouping of instances within a single Availability Zone. Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

#### NEW QUESTION 10

You are migrating an internal server on your DC to an EC2 instance with EBS volume. Your server disk usage is around 500GB so you just copied all your data to a 2TB disk to be used with AWS Import/Export. Where will the data be imported once it arrives at Amazon?

- A. to a 2TB EBS volume
- B. to an S3 bucket with 2 objects of 1TB
- C. to an 500GB EBS volume
- D. to an S3 bucket as a 2TB snapshot

**Answer:** B

**Explanation:** An import to Amazon EBS will have different results depending on whether the capacity of your storage device is less than or equal to 1 TB or greater than 1 TB. The maximum size of an Amazon EBS snapshot is 1 TB, so if the device image is larger than 1 TB, the image is chunked and stored on Amazon S3. The target location is determined based on the total capacity of the device, not the amount of data on the device.

Reference: <http://docs.aws.amazon.com/AWSImportExport/latest/DG/Concepts.html>

#### NEW QUESTION 10

A client needs you to import some existing infrastructure from a dedicated hosting provider to AWS to try and save on the cost of running his current website. He also needs an automated process that manages backups, software patching, automatic failure detection, and recovery. You are aware that his existing set up currently uses an Oracle database. Which of the following AWS databases would be best for accomplishing this task?

- A. Amazon RDS
- B. Amazon Redshift
- C. Amazon SimpleDB
- D. Amazon ElastiCache

**Answer:** A

**Explanation:** Amazon RDS gives you access to the capabilities of a familiar MySQL, Oracle, SQL Server, or PostgreSQL database engine. This means that the code, applications, and tools you already use today with your existing databases can be used with Amazon RDS. Amazon RDS automatically patches the database software and backs up your database, storing the backups for a user-defined retention period and enabling point-in-time recovery.

Reference: <http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html>

#### NEW QUESTION 14

True or false? A VPC contains multiple subnets, where each subnet can span multiple Availability Zones.

- A. This is true only if requested during the set-up of VPC.
- B. This is true.
- C. This is false.
- D. This is true only for US region

**Answer:** C

**Explanation:** A VPC can span several Availability Zones. In contrast, a subnet must reside within a single Availability Zone.

Reference: <https://aws.amazon.com/vpc/faqs/>

#### NEW QUESTION 16

Do Amazon EBS volumes persist independently from the running life of an Amazon EC2 instance?

- A. Yes, they do but only if they are detached from the instance.
- B. No, you cannot attach EBS volumes to an instance.
- C. No, they are dependent.
- D. Yes, they do

**Answer:** D

**Explanation:** An Amazon EBS volume behaves like a raw, unformatted, external block device that you can attach to a



single instance. The volume persists independently from the running life of an Amazon EC2 instance. Reference:  
<http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/Storage.html>

#### NEW QUESTION 18

Your supervisor has asked you to build a simple file synchronization service for your department. He doesn't want to spend too much money and he wants to be notified of any changes to files by email. What do you think would be the best Amazon service to use for the email solution?

- A. Amazon SES
- B. Amazon CloudSearch
- C. Amazon SWF
- D. Amazon AppStream

**Answer:** A

**Explanation:** File change notifications can be sent via email to users following the resource with Amazon Simple Email Service (Amazon SES), an easy-to-use, cost-effective email solution.

Reference: [http://media.amazonwebservices.com/architecturecenter/AWS\\_ac\\_ra\\_filesync\\_08.pdf](http://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_filesync_08.pdf)

#### NEW QUESTION 23

Does DynamoDB support in-place atomic updates?

- A. Yes
- B. No
- C. It does support in-place non-atomic updates
- D. It is not defined

**Answer:** A

**Explanation:** DynamoDB supports in-place atomic updates.

Reference:

<http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/WorkingWithItems.html#WorkingWithItems.AtomicCounters>

#### NEW QUESTION 25

Your manager has just given you access to multiple VPN connections that someone else has recently set up between all your company's offices. She needs you to make sure that the communication between the VPNs is secure. Which of the following services would be best for providing a low-cost hub-and-spoke model for primary or backup connectivity between these remote offices?

- A. Amazon CloudFront
- B. AWS Direct Connect
- C. AWS CloudHSM
- D. AWS VPN CloudHub

**Answer:** D

**Explanation:** If you have multiple VPN connections, you can provide secure communication between sites using the AWS VPN CloudHub. The VPN CloudHub operates on a simple hub-and-spoke model that you can use with or without a VPC. This design is suitable for customers with multiple branch offices and existing Internet connections who would like to implement a convenient, potentially low-cost hub-and-spoke model for primary or backup connectivity between these remote offices.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPN\\_CloudHub.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPN_CloudHub.html)

#### NEW QUESTION 29

Amazon EC2 provides a . It is an HTTP or HTTPS request that uses the HTTP verbs GET or POST.

- A. web database
- B. .net framework
- C. Query API
- D. C library

**Answer:** C

**Explanation:** Amazon EC2 provides a Query API. These requests are HTTP or HTTPS requests that use the HTTP verbs GET or POST and a Query parameter named Action.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/APIReference/making-api-requests.html>

#### NEW QUESTION 31

In Amazon AWS, which of the following statements is true of key pairs?

- A. Key pairs are used only for Amazon SDKs.
- B. Key pairs are used only for Amazon EC2 and Amazon CloudFront.
- C. Key pairs are used only for Elastic Load Balancing and AWS IAM.
- D. Key pairs are used for all Amazon service

**Answer:**

B

**Explanation:** Key pairs consist of a public and private key, where you use the private key to create a digital signature, and then AWS uses the corresponding public key to validate the signature. Key pairs are used only for Amazon EC2 and Amazon CloudFront.

Reference: <http://docs.aws.amazon.com/general/latest/gr/aws-sec-cred-types.html>

### NEW QUESTION 33

Does Amazon DynamoDB support both increment and decrement atomic operations?

- A. Only increment, since decrement are inherently impossible with DynamoDB's data model.
- B. No, neither increment nor decrement operations.
- C. Yes, both increment and decrement operations.
- D. Only decrement, since increment are inherently impossible with DynamoDB's data mode

**Answer:** C

**Explanation:** Amazon DynamoDB supports increment and decrement atomic operations.

Reference: <http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/APISummary.html>

### NEW QUESTION 37

An organization has three separate AWS accounts, one each for development, testing, and production. The organization wants the testing team to have access to certain AWS resources in the production account. How can the organization achieve this?

- A. It is not possible to access resources of one account with another account.
- B. Create the IAM roles with cross account access.
- C. Create the IAM user in a test account, and allow it access to the production environment with the IAM policy.
- D. Create the IAM users with cross account acces

**Answer:** B

**Explanation:** An organization has multiple AWS accounts to isolate a development environment from a testing or production environment. At times the users from one account need to access resources in the other account, such as promoting an update from the development environment to the production environment. In this case the IAM role with cross account access will provide a solution. Cross account access lets one account share access to their resources with users in the other AWS accounts.

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

### NEW QUESTION 42

You need to import several hundred megabytes of data from a local Oracle database to an Amazon RDS DB instance. What does AWS recommend you use to accomplish this?

- A. Oracle export/import utilities
- B. Oracle SQL Developer
- C. Oracle Data Pump
- D. DBMS\_FILE\_TRANSFER

**Answer:** C

**Explanation:** How you import data into an Amazon RDS DB instance depends on the amount of data you have and the number and variety of database objects in your database.

For example, you can use Oracle SQL Developer to import a simple, 20 MB database; you want to use Oracle Data Pump to import complex databases or databases that are several hundred megabytes or several terabytes in size.

Reference: <http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Oracle.Procedural.Importing.html>

### NEW QUESTION 44

A user has created an EBS volume with 1000 IOPS. What is the average IOPS that the user will get for most of the year as per EC2 SLA if the instance is attached to the EBS optimized instance?

- A. 950
- B. 990
- C. 1000
- D. 900

**Answer:** D

**Explanation:** As per AWS SLA if the instance is attached to an EBS-Optimized instance, then the Provisioned IOPS volumes are designed to deliver within 10% of the provisioned IOPS performance 99.9% of the time in a given year. Thus, if the user has created a volume of 1000 IOPS, the user will get a minimum 900 IOPS 99.9% time of the year.

Reference: <http://aws.amazon.com/ec2/faqs/>

### NEW QUESTION 48

You need to migrate a large amount of data into the cloud that you have stored on a hard disk and you decide that the best way to accomplish this is with AWS Import/Export and you mail the hard disk to AWS. Which of the following statements is incorrect in regards to AWS Import/Export?

- A. It can export from Amazon S3
- B. It can Import to Amazon Glacier
- C. It can export from Amazon Glacier.
- D. It can Import to Amazon EBS

**Answer:** C

**Explanation:** AWS Import/Export supports: Import to Amazon S3  
Export from Amazon S3 Import to Amazon EBS Import to Amazon Glacier  
AWS Import/Export does not currently support export from Amazon EBS or Amazon Glacier. Reference:  
<https://docs.aws.amazon.com/AWSImportExport/latest/DG/whatisdisk.html>

#### NEW QUESTION 51

You are in the process of creating a Route 53 DNS failover to direct traffic to two EC2 zones. Obviously, if one fails, you would like Route 53 to direct traffic to the other region. Each region has an ELB with some instances being distributed. What is the best way for you to configure the Route 53 health check?

- A. Route 53 doesn't support ELB with an internal health check. You need to create your own Route 53 health check of the ELB
- B. Route 53 natively supports ELB with an internal health check
- C. Turn "Evaluate target health" off and "Associate with Health Check" on and Route 53 will use the ELB's internal health check.
- D. Route 53 doesn't support ELB with an internal health check
- E. You need to associate your resource record set for the ELB with your own health check
- F. Route 53 natively supports ELB with an internal health check
- G. Turn "Evaluate target health" on and "Associate with Health Check" off and Route 53 will use the ELB's internal health check.

**Answer:** D

**Explanation:** With DNS Failover, Amazon Route 53 can help detect an outage of your website and redirect your end users to alternate locations where your application is operating properly. When you enable this feature, Route 53 uses health checks-regularly making Internet requests to your application's endpoints from multiple locations around the world-to determine whether each endpoint of your application is up or down.  
To enable DNS Failover for an ELB endpoint, create an Alias record pointing to the ELB and set the "Evaluate Target Health" parameter to true. Route 53 creates and manages the health checks for your ELB automatically. You do not need to create your own Route 53 health check of the ELB. You also do not need to associate your resource record set for the ELB with your own health check, because Route 53 automatically associates it with the health checks that Route 53 manages on your behalf. The ELB health check will also inherit the health of your backend instances behind that ELB.  
Reference:  
<http://aws.amazon.com/about-aws/whats-new/2013/05/30/amazon-route-53-adds-elb-integration-for-dns-failover/>

#### NEW QUESTION 52

A user wants to use an EBS-backed Amazon EC2 instance for a temporary job. Based on the input data, the job is most likely to finish within a week. Which of the following steps should be followed to terminate the instance automatically once the job is finished?

- A. Configure the EC2 instance with a stop instance to terminate it.
- B. Configure the EC2 instance with ELB to terminate the instance when it remains idle.
- C. Configure the CloudWatch alarm on the instance that should perform the termination action once the instance is idle.
- D. Configure the Auto Scaling schedule action that terminates the instance after 7 days

**Answer:** C

**Explanation:** Auto Scaling can start and stop the instance at a pre-defined time. Here, the total running time is unknown. Thus, the user has to use the CloudWatch alarm, which monitors the CPU utilization. The user can create an alarm that is triggered when the average CPU utilization percentage has been lower than 10 percent for 24 hours, signaling that it is idle and no longer in use. When the utilization is below the threshold limit, it will terminate the instance as a part of the instance action.  
Reference: <http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/UsingAlarmActions.html>

#### NEW QUESTION 53

An Elastic IP address (EIP) is a static IP address designed for dynamic cloud computing. With an EIP, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account. Your EIP is associated with your AWS account, not a particular EC2 instance, and it remains associated with your account until you choose to explicitly release it. By default how many EIPs is each AWS account limited to on a per region basis?

- A. 1
- B. 5
- C. Unlimited
- D. 10

**Answer:** B

**Explanation:** By default, all AWS accounts are limited to 5 Elastic IP addresses per region for each AWS account, because public (IPv4) Internet addresses are a scarce public resource. AWS strongly encourages you to use an EIP primarily for load balancing use cases, and use DNS hostnames for all other inter-node communication.  
If you feel your architecture warrants additional EIPs, you would need to complete the Amazon EC2 Elastic IP Address Request Form and give reasons as to your need for additional addresses. Reference:  
<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/elastic-ip-addresses-eip.html#using-instance-addressing-limit>

#### NEW QUESTION 57

In EC2, what happens to the data in an instance store if an instance reboots (either intentionally or unintentionally)?

- A. Data is deleted from the instance store for security reasons.
- B. Data persists in the instance store.
- C. Data is partially present in the instance store.
- D. Data in the instance store will be lost

**Answer: B**

**Explanation:** The data in an instance store persists only during the lifetime of its associated instance. If an instance reboots (intentionally or unintentionally), data in the instance store persists. However, data on instance store volumes is lost under the following circumstances.

Failure of an underlying drive

Stopping an Amazon EBS-backed instance Terminating an instance

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

#### NEW QUESTION 62

You are setting up a VPC and you need to set up a public subnet within that VPC. Which following requirement must be met for this subnet to be considered a public subnet?

- A. Subnet's traffic is not routed to an internet gateway but has its traffic routed to a virtual private gateway.
- B. Subnet's traffic is routed to an internet gateway.
- C. Subnet's traffic is not routed to an internet gateway.
- D. None of these answers can be considered a public subnet

**Answer: B**

**Explanation:** A virtual private cloud (VPC) is a virtual network dedicated to your AWS account. It is logically isolated from other virtual networks in the AWS cloud. You can launch your AWS resources, such as Amazon EC2 instances, into your VPC. You can configure your VPC: you can select its IP address range, create subnets, and configure route tables, network gateways, and security settings.

A subnet is a range of IP addresses in your VPC. You can launch AWS resources into a subnet that you select. Use a public subnet for resources that must be connected to the internet, and a private subnet for resources that won't be connected to the Internet.

If a subnet's traffic is routed to an internet gateway, the subnet is known as a public subnet.

If a subnet doesn't have a route to the internet gateway, the subnet is known as a private subnet.

If a subnet doesn't have a route to the internet gateway, but has its traffic routed to a virtual private gateway, the subnet is known as a VPN-only subnet.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Subnets.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Subnets.html)

#### NEW QUESTION 63

Can you specify the security group that you created for a VPC when you launch an instance in EC2-Classic?

- A. No, you can specify the security group created for EC2-Classic when you launch a VPC instance.
- B. No
- C. Yes
- D. No, you can specify the security group created for EC2-Classic to a non-VPC based instance only

**Answer: B**

**Explanation:** If you're using EC2-Classic, you must use security groups created specifically for EC2-Classic. When you launch an instance in EC2-Classic, you must specify a security group in the same region as the instance. You can't specify a security group that you created for a VPC when you launch an instance in EC2-Classic.

Reference:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-network-security.html#ec2-classic-security-groups>

#### NEW QUESTION 68

You have been asked to build a database warehouse using Amazon Redshift. You know a little about it, including that it is a SQL data warehouse solution, and uses industry standard ODBC and JDBC connections and PostgreSQL drivers. However you are not sure about what sort of storage it uses for database tables. What sort of storage does Amazon Redshift use for database tables?

- A. InnoDB Tables
- B. NDB data storage
- C. Columnar data storage
- D. NDB CLUSTER Storage

**Answer: C**

**Explanation:** Amazon Redshift achieves efficient storage and optimum query performance through a combination of massively parallel processing, columnar data storage, and very efficient, targeted data compression encoding schemes.

Columnar storage for database tables is an important factor in optimizing analytic query performance because it drastically reduces the overall disk I/O requirements and reduces the amount of data you need to load from disk.

Reference: [http://docs.aws.amazon.com/redshift/latest/dg/c\\_columnar\\_storage\\_disk\\_mem\\_mgmt.html](http://docs.aws.amazon.com/redshift/latest/dg/c_columnar_storage_disk_mem_mgmt.html)

#### NEW QUESTION 72

Which of the below mentioned options is not available when an instance is launched by Auto Scaling with EC2 Classic?

- A. Public IP
- B. Elastic IP
- C. Private DNS
- D. Private IP



**Answer:** B

**Explanation:** Auto Scaling supports both EC2 classic and EC2-VPC. When an instance is launched as a part of EC2 classic, it will have the public IP and DNS as well as the private IP and DNS.

Reference: <http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/GettingStartedTutorial.html>

#### NEW QUESTION 73

You have been given a scope to deploy some AWS infrastructure for a large organisation. The requirements are that you will have a lot of EC2 instances but may need to add more when the average utilization of your Amazon EC2 fleet is high and conversely remove them when CPU utilization is low. Which AWS services would be best to use to accomplish this?

- A. Auto Scaling, Amazon CloudWatch and AWS Elastic Beanstalk
- B. Auto Scaling, Amazon CloudWatch and Elastic Load Balancing.
- C. Amazon CloudFront, Amazon CloudWatch and Elastic Load Balancing.
- D. AWS Elastic Beanstalk, Amazon CloudWatch and Elastic Load Balancing

**Answer:** B

**Explanation:** Auto Scaling enables you to follow the demand curve for your applications closely, reducing the need to manually provision Amazon EC2 capacity in advance. For example, you can set a condition to add new

Amazon EC2 instances in increments to the Auto Scaling group when the average utilization of your Amazon EC2 fleet is high; and similarly, you can set a condition to remove instances in the same increments when CPU utilization is low. If you have predictable load changes, you can set a schedule through Auto Scaling to plan your scaling activities. You can use Amazon CloudWatch to send alarms to trigger scaling activities and Elastic Load Balancing to help distribute traffic to your instances within Auto Scaling groups. Auto Scaling enables you to run your Amazon EC2 fleet at optimal utilization. Reference:

<http://aws.amazon.com/autoscaling/>

#### NEW QUESTION 74

You are building infrastructure for a data warehousing solution and an extra request has come through that there will be a lot of business reporting queries running all the time and you are not sure if your current DB instance will be able to handle it. What would be the best solution for this?

- A. DB Parameter Groups
- B. Read Replicas
- C. Multi-AZ DB Instance deployment
- D. Database Snapshots

**Answer:** B

**Explanation:** Read Replicas make it easy to take advantage of MySQL's built-in replication functionality to elastically scale out beyond the capacity constraints of a single DB Instance for read-heavy database workloads. There are a variety of scenarios where deploying one or more Read Replicas for a given source DB Instance may make sense. Common reasons for deploying a Read Replica include:

Scaling beyond the compute or I/O capacity of a single DB Instance for read-heavy database workloads. This excess read traffic can be directed to one or more Read Replicas.

Serving read traffic while the source DB Instance is unavailable. If your source DB Instance cannot take I/O requests (e.g. due to I/O suspension for backups or scheduled maintenance), you can direct read traffic to your Read Replica(s). For this use case, keep in mind that the data on the Read Replica may be "stale" since the source DB Instance is unavailable.

Business reporting or data warehousing scenarios; you may want business reporting queries to run against a Read Replica, rather than your primary, production DB Instance.

Reference: <https://aws.amazon.com/rds/faqs/>

#### NEW QUESTION 79

In DynamoDB, could you use IAM to grant access to Amazon DynamoDB resources and API actions?

- A. In DynamoDB there is no need to grant access
- B. Depended to the type of access
- C. No
- D. Yes

**Answer:** D

**Explanation:** Amazon DynamoDB integrates with AWS Identity and Access Management (IAM). You can use AWS IAM to grant access to Amazon DynamoDB resources and API actions. To do this, you first write an AWS IAM policy, which is a document that explicitly lists the permissions you want to grant. You then attach that policy to an AWS IAM user or role.

Reference: <http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/UsingIAMWithDDB.html>

#### NEW QUESTION 84

Your EBS volumes do not seem to be performing as expected and your team leader has requested you look into improving their performance. Which of the following is not a true statement relating to the performance of your EBS volumes?

- A. Frequent snapshots provide a higher level of data durability and they will not degrade the performance of your application while the snapshot is in progress.
- B. General Purpose (SSD) and Provisioned IOPS (SSD) volumes have a throughput limit of 128 MB/s per volume.
- C. There is a relationship between the maximum performance of your EBS volumes, the amount of I/O you are doing to them, and the amount of time it takes for each transaction to complete.
- D. There is a 5 to 50 percent reduction in IOPS when you first access each block of data on a newly created or restored EBS volume

**Answer:** A

**Explanation:** Several factors can affect the performance of Amazon EBS volumes, such as instance configuration, I/O characteristics, workload demand, and storage configuration.

Frequent snapshots provide a higher level of data durability, but they may slightly degrade the

performance of your application while the snapshot is in progress. This trade off becomes critical when you have data that changes rapidly. Whenever possible, plan for snapshots to occur during off-peak times in order to minimize workload impact.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSPerformance.html>

#### NEW QUESTION 88

A major finance organisation has engaged your company to set up a large data mining application. Using AWS you decide the best service for this is Amazon Elastic MapReduce(EMR) which you know uses Hadoop. Which of the following statements best describes Hadoop?

- A. Hadoop is 3rd Party software which can be installed using AMI
- B. Hadoop is an open source python web framework
- C. Hadoop is an open source Java software framework
- D. Hadoop is an open source javascript framework

**Answer:** C

**Explanation:** Amazon EMR uses Apache Hadoop as its distributed data processing engine.

Hadoop is an open source, Java software framework that supports data-intensive distributed applications running on large clusters of commodity hardware.

Hadoop implements a programming model named "MapReduce," where the data is dMded into many small fragments of work, each of which may be executed on any node in the cluster.

This framework has been widely used by developers, enterprises and startups and has proven to be a reliable software platform for processing up to petabytes of data on clusters of thousands of commodity machines.

Reference: <http://aws.amazon.com/elasticmapreduce/faqs/>

#### NEW QUESTION 90

is a fast, filexible, fully managed push messaging service.

- A. Amazon SNS
- B. Amazon SES
- C. Amazon SQS
- D. Amazon FPS

**Answer:** A

**Explanation:** Amazon Simple Notification Service (Amazon SNS) is a fast, filexible, fully managed push messaging service. Amazon SNS makes it simple and cost-effective to push to mobile devices such as iPhone, iPad, Android, Kindle Fire, and internet connected smart devices, as well as pushing to other distributed services.

Reference: [http://aws.amazon.com/sns/?nc1=h\\_I2\\_as](http://aws.amazon.com/sns/?nc1=h_I2_as)

#### NEW QUESTION 93

You need to set up a complex network infrastructure for your organization that will be reasonably easy to deploy, replicate, control, and track changes on. Which AWS service would be best to use to help you accomplish this?

- A. AWS Import/Export
- B. AWS CloudFormation
- C. Amazon Route 53
- D. Amazon CloudWatch

**Answer:** B

**Explanation:** AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. You create a template that describes all the AWS resources that you want (like Amazon EC2 instances or Amazon RDS DB instances), and AWS CloudFormation takes care of provisioning and configuring those resources for you. You don't need to indMdually create and configure AWS resources

and figure out what's dependent on what. AWS CloudFormation handles all of that.

Reference: <http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/Welcome.html>

#### NEW QUESTION 95

In an experiment, if the minimum size for an Auto Scaling group is 1 instance, which of the following statements holds true when you terminate the running instance?

- A. Auto Scaling must launch a new instance to replace it.
- B. Auto Scaling will raise an alarm and send a notification to the user for action.
- C. Auto Scaling must configure the schedule actMty that terminates the instance after 5 days.
- D. Auto Scaling will terminate the experimen

**Answer:** A

**Explanation:** If the minimum size for an Auto Scaling group is 1 instance, when you terminate the running instance, Auto Scaling must launch a new instance to replace it.

Reference:[http://docs.aws.amazon.com/AutoScaling/latest/Deve|operGuide/AS\\_Concepts.html](http://docs.aws.amazon.com/AutoScaling/latest/Deve|operGuide/AS_Concepts.html)

#### NEW QUESTION 96

In Amazon EC2, while sharing an Amazon EBS snapshot, can the snapshots with AWS Marketplace product codes be public?

- A. Yes, but only for US-based providers.
- B. Yes, they can be public.
- C. No, they cannot be made public.
- D. Yes, they are automatically made public by the system

**Answer:** C

**Explanation:** Snapshots with AWS Marketplace product codes can't be made public. Reference:  
<http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/ebs-modifying-snapshot-permissions.html>

#### NEW QUESTION 101

An organization has created an application which is hosted on the AWS EC2 instance. The application stores images to S3 when the end user uploads to it. The organization does not want to store the AWS secure credentials required to access the S3 inside the instance. Which of the below mentioned options is a possible solution to avoid any security threat?

- A. Use the IAM based single sign between the AWS resources and the organization application.
- B. Use the IAM role and assign it to the instance.
- C. Since the application is hosted on EC2, it does not need credentials to access S3.
- D. Use the X.509 certificates instead of the access and the secret access key

**Answer:** B

**Explanation:** The AWS IAM role uses temporary security credentials to access AWS services. Once the role is assigned to an instance, it will not need any security credentials to be stored on the instance. Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/iam-roles-for-amazon-ec2.html>

#### NEW QUESTION 104

Can resource record sets in a hosted zone have a different domain suffix (for example, www.blog.acme.com and www.acme.ca)?

- A. Yes, it can have for a maximum of three different TLDs.
- B. Yes
- C. Yes, it can have depending on the TLD.
- D. No

**Answer:** D

**Explanation:** The resource record sets contained in a hosted zone must share the same suffix. For example, the example.com hosted zone can contain resource record sets for www.example.com and www.aws.example.com subdomains, but it cannot contain resource record sets for a www.example.ca subdomain. Reference: <http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/AboutHostedZones.html>

#### NEW QUESTION 109

You are running PostgreSQL on Amazon RDS and it seems to be all running smoothly deployed in one availability zone. A database administrator asks you if DB instances running PostgreSQL support Multi-AZ deployments. What would be a correct response to this QUESTION ?

- A. Yes.
- B. Yes but only for small db instances.
- C. No.
- D. Yes but you need to request the service from AWS

**Answer:** A

**Explanation:** Amazon RDS supports DB instances running several versions of PostgreSQL. Currently we support PostgreSQL versions 9.3.1, 9.3.2, and 9.3.3. You can create DB instances and DB snapshots, point-in-time restores and backups. DB instances running PostgreSQL support Multi-AZ deployments, Provisioned IOPS, and can be created inside a VPC. You can also use SSL to connect to a DB instance running PostgreSQL. You can use any standard SQL client application to run commands for the instance from your client computer. Such applications include pgAdmin, a popular Open Source administration and development tool for PostgreSQL, or psql, a command line utility that is part of a PostgreSQL installation. In order to deliver a managed service experience, Amazon RDS does not provide host access to DB instances, and it restricts access to certain system procedures and tables that require advanced privileges. Amazon RDS supports access to databases on a DB instance using any standard SQL client application. Amazon RDS does not allow direct host access to a DB instance via Telnet or Secure Shell (SSH). Reference: [http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP\\_PostgreSQL.html](http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_PostgreSQL.html)

#### NEW QUESTION 112

Once again your customers are concerned about the security of their sensitive data and with their latest enquiry ask about what happens to old storage devices on AWS. What would be the best answer to this QUESTION ?

- A. AWS reformats the disks and uses them again.
- B. AWS uses the techniques detailed in DoD 5220.22-M to destroy data as part of the decommissioning process.
- C. AWS uses their own proprietary software to destroy data as part of the decommissioning process.
- D. AWS uses a 3rd party security organization to destroy data as part of the decommissioning process

**Answer:**

B

**Explanation:** When a storage device has reached the end of its useful life, AWS procedures include a decommissioning process that is designed to prevent customer data from being exposed to unauthorized individuals.

AWS uses the techniques detailed in DoD 5220.22-M ("National Industrial Security Program Operating Manual ") or NIST 800-88 ("Guidelines for Media Sanitization") to destroy data as part of the decommissioning process.

All decommissioned magnetic storage devices are degaussed and physically destroyed in accordance with industry-standard practices.

Reference: <http://d0.awsstatic.com/whitepapers/Security/AWS%20Security%20Whitepaper.pdf>

#### NEW QUESTION 116

Your company has been storing a lot of data in Amazon Glacier and has asked for an inventory of what is in there exactly. So you have decided that you need to download a vault inventory. Which of the following statements is incorrect in relation to Vault Operations in Amazon Glacier?

- A. You can use Amazon Simple Notification Service (Amazon SNS) notifications to notify you when the job completes.
- B. A vault inventory refers to the list of archives in a vault.
- C. You can use Amazon Simple Queue Service (Amazon SQS) notifications to notify you when the job completes.
- D. Downloading a vault inventory is an asynchronous operation

**Answer: C**

**Explanation:** Amazon Glacier supports various vault operations.

A vault inventory refers to the list of archives in a vault. For each archive in the list, the inventory provides archive information such as archive ID, creation date, and size. Amazon Glacier updates the vault inventory approximately once a day, starting on the day the first archive is uploaded to the vault. A vault inventory must exist for you to be able to download it.

Downloading a vault inventory is an asynchronous operation. You must first initiate a job to download the inventory. After receiving the job request, Amazon Glacier prepares your inventory for download. After the job completes, you can download the inventory data.

Given the asynchronous nature of the job, you can use Amazon Simple Notification Service (Amazon SNS) notifications to notify you when the job completes. You can specify an Amazon SNS topic for each individual job request or configure your vault to send a notification when specific vault events occur. Amazon Glacier prepares an inventory for each vault periodically, every 24 hours. If there have been no archive additions or deletions to the vault since the last inventory, the inventory date is not updated. When you initiate a job for a vault inventory, Amazon Glacier returns the last inventory it generated, which is a point-in-time snapshot and not real-time data. You might not find it useful to retrieve vault inventory for each archive upload. However, suppose you maintain a database on the client-side associating metadata about the archives you upload to Amazon Glacier. Then, you might find the vault inventory useful to reconcile information in your database with the actual vault inventory.

Reference: <http://docs.aws.amazon.com/amazonglacier/latest/dev/working-with-vaults.html>

#### NEW QUESTION 119

A customer enquires about whether all his data is secure on AWS and is especially concerned about Elastic Map Reduce (EMR) so you need to inform him of some of the security features in place for AWS. Which of the below statements would be an incorrect response to your customer's enquiry?

- A. Amazon EMR customers can choose to send data to Amazon S3 using the HTTPS protocol for secure transmission.
- B. Amazon S3 provides authentication mechanisms to ensure that stored data is secured against unauthorized access.
- C. Every packet sent in the AWS network uses Internet Protocol Security (IPsec).
- D. Customers may encrypt the input data before they upload it to Amazon S3.

**Answer: C**

**Explanation:** Amazon S3 provides authentication mechanisms to ensure that stored data is secured against unauthorized access. Unless the customer who is uploading the data specifies otherwise, only that customer can access the data. Amazon EMR customers can also choose to send data to Amazon S3 using the HTTPS protocol for secure transmission. In addition, Amazon EMR always uses HTTPS to send data between Amazon S3 and Amazon EC2. For added security, customers may encrypt the input data before they upload it to Amazon S3 (using any common data compression tool); they then need to add a decryption step to the beginning of their cluster when Amazon EMR fetches the data from Amazon S3. Reference: <https://aws.amazon.com/elasticmapreduce/faqs/>

#### NEW QUESTION 120

You are in the process of building an online gaming site for a client and one of the requirements is that it must be able to process vast amounts of data easily. Which AWS Service would be very helpful in processing all this data?

- A. Amazon S3
- B. AWS Data Pipeline
- C. AWS Direct Connect
- D. Amazon EMR

**Answer: D**

**Explanation:** Managing and analyzing high data volumes produced by online games platforms can be difficult. The back-end infrastructures of online games can be challenging to maintain and operate. Peak usage periods, multiple players, and high volumes of write operations are some of the most common problems that operations teams face.

Amazon Elastic MapReduce (Amazon EMR) is a service that processes vast amounts of data easily. Input data can be retrieved from web server logs stored on Amazon S3 or from player data stored in Amazon DynamoDB tables to run analytics on player behavior, usage patterns, etc. Those results can be stored again on Amazon S3, or inserted in a relational database for further analysis with classic business intelligence tools.

Reference: [http://media.amazonwebservices.com/architecturecenter/AWS\\_ac\\_ra\\_games\\_10.pdf](http://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_games_10.pdf)

#### NEW QUESTION 122

What does the following policy for Amazon EC2 do?

```
{
```



```
"Statement":[{  
  "Effect":"Allow", "Action":"ec2:Describe*", "Resource": "*"   
}]  
}
```

- A. Allow users to use actions that start with "Describe" over all the EC2 resources.
- B. Share an AMI with a partner
- C. Share an AMI within the account
- D. Allow a group to only be able to describe, run, stop, start, and terminate instances

**Answer:** A

**Explanation:** You can use IAM policies to control the actions that your users can perform against your EC2 resources. For instance, a policy with the following statement will allow users to perform actions whose name start with "Describe" against all your EC2 resources.

```
{  
  "Statement":[{  
    "Effect":"Allow", "Action":"ec2:Describe*", "Resource": "*"   
  }]  
}
```

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/UsingIAM.html>

### NEW QUESTION 123

You are setting up a very complex financial services grid and so far it has 5 Elastic IP (EIP) addresses.

You go to assign another EIP address, but all accounts are limited to 5 Elastic IP addresses per region by default, so you aren't able to. What is the reason for this?

- A. For security reasons.
- B. Hardware restrictions.
- C. Public (IPv4) internet addresses are a scarce resource.
- D. There are only 5 network interfaces per instance

**Answer:** C

**Explanation:** Public (IPv4) internet addresses are a scarce resource. There is only a limited amount of public IP space available, and Amazon EC2 is committed to helping use that space efficiently.

By default, all accounts are limited to 5 Elastic IP addresses per region. If you need more than 5 Elastic IP addresses, AWS asks that you apply for your limit to be raised. They will ask you to think through your use case and help them understand your need for additional addresses.

Reference: [http://aws.amazon.com/ec2/faqs/#How\\_many\\_instances\\_can\\_I\\_run\\_in\\_Amazon\\_EC2](http://aws.amazon.com/ec2/faqs/#How_many_instances_can_I_run_in_Amazon_EC2)

### NEW QUESTION 124

Amazon RDS provides high availability and failover support for DB instances using .

- A. customized deployments
- B. Appstream customizations
- C. log events
- D. Multi-AZ deployments

**Answer:** D

**Explanation:** Amazon RDS provides high availability and failover support for DB instances using Multi-AZ deployments. Multi-AZ deployments for Oracle, PostgreSQL, MySQL, and MariaDB DB instances use Amazon technology, while SQL Server DB instances use SQL Server Mirroring.

Reference: <http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Concepts.IV|ultiAZ.html>

### NEW QUESTION 127

A major customer has asked you to set up his AWS infrastructure so that it will be easy to recover in the case of a disaster of some sort. Which of the following is important when thinking about being able to quickly launch resources in AWS to ensure business continuity in case of a disaster?

- A. Create and maintain AMIs of key servers where fast recovery is required.
- B. Regularly run your servers, test them, and apply any software updates and configuration changes.
- C. All items listed here are important when thinking about disaster recovery.
- D. Ensure that you have all supporting custom software packages available in AWS

**Answer:** C

**Explanation:** In the event of a disaster to your AWS infrastructure you should be able to quickly launch resources in Amazon Web Services (AWS) to ensure business continuity.

The following are some key steps you should have in place for preparation:

1. Set up Amazon EC2 instances to replicate or mirror data.
2. Ensure that you have all supporting custom software packages available in AWS.
3. Create and maintain AMIs of key servers where fast recovery is required.
4. Regularly run these servers, test them, and apply any software updates and configuration changes.
5. Consider automating the provisioning of AWS resources.

Reference: [http://d36cz9buwru1tt.cloudfront.net/AWS\\_Disaster\\_Recovery.pdf](http://d36cz9buwru1tt.cloudfront.net/AWS_Disaster_Recovery.pdf)

### NEW QUESTION 132

What does Amazon DynamoDB provide?

- A. A predictable and scalable MySQL database
- B. A fast and reliable PL/SQL database cluster
- C. A standalone Cassandra database, managed by Amazon Web Services
- D. A fast, highly scalable managed NoSQL database service

**Answer:** D

**Explanation:** Amazon DynamoDB is a managed NoSQL database service offered by Amazon. It automatically manages tasks like scalability for you while it provides high availability and durability for your data, allowing you to concentrate in other aspects of your application.

Reference: check link - [https://aws.amazon.com/running\\_databases/](https://aws.amazon.com/running_databases/)

#### NEW QUESTION 137

You want to use AWS Import/Export to send data from your S3 bucket to several of your branch offices. What should you do if you want to send 10 storage units to AWS?

- A. Make sure your disks are encrypted prior to shipping.
- B. Make sure you format your disks prior to shipping.
- C. Make sure your disks are 1TB or more.
- D. Make sure you submit a separate job request for each device

**Answer:** D

**Explanation:** When using Amazon Import/Export, a separate job request needs to be submitted for each physical device even if they belong to the same import or export job.

Reference: <http://docs.aws.amazon.com/AWSImportExport/latest/DG/Concepts.html>

#### NEW QUESTION 138

What would be the best way to retrieve the public IP address of your EC2 instance using the CLI?

- A. Using tags
- B. Using traceroute
- C. Using ipconfig
- D. Using instance metadata

**Answer:** D

**Explanation:** To determine your instance's public IP address from within the instance, you can use instance metadata. Use the following command to access the public IP address: For Linux use, \$ curl

<http://169.254.169.254/latest/meta-data/public-ipv4>, and for Windows use, \$ wget <http://169.254.169.254/latest/meta-data/public-ipv4>.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-instance-addressing.htm>

#### NEW QUESTION 141

You need to measure the performance of your EBS volumes as they seem to be under performing. You have come up with a measurement of 1,024 KB I/O but your colleague tells you that EBS volume performance is measured in IOPS. How many IOPS is equal to 1,024 KB I/O?

- A. 16
- B. 256
- C. 8
- D. 4

**Answer:** D

**Explanation:** Several factors can affect the performance of Amazon EBS volumes, such as instance configuration, I/O characteristics, workload demand, and storage configuration.

IOPS are input/output operations per second. Amazon EBS measures each I/O operation per second

(that is 256 KB or smaller) as one IOPS. I/O operations that are larger than 256 KB are counted in 256 KB capacity units.

For example, a 1,024 KB I/O operation would count as 4 IOPS.

When you provision a 4,000 IOPS volume and attach it to an EBS-optimized instance that can provide the necessary bandwidth, you can transfer up to 4,000 chunks of data per second (provided that the I/O does not exceed the 128 MB/s per volume throughput limit of General Purpose (SSD) and Provisioned IOPS (SSD) volumes).

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSPerformance.html>

#### NEW QUESTION 145

Having set up a website to automatically be redirected to a backup website if it fails, you realize that there are different types of failovers that are possible. You need all your resources to be available the majority of the time. Using Amazon Route 53 which configuration would best suit this requirement?

- A. Active-active failover.
- B. Non
- C. Route 53 can't failover.
- D. Active-passive failover.
- E. Active-active-passive and other mixed configuration

**Answer:** A

**Explanation:** You can set up a variety of failover configurations using Amazon Route 53 alias: weighted, latency, geolocation routing, and failover resource record sets.

Active-active failover: Use this failover configuration when you want all of your resources to be available the majority of the time. When a resource becomes unavailable, Amazon Route 53 can detect that it's unhealthy and stop including it when responding to queries.

Active-passive failover: Use this failover configuration when you want a primary group of resources to be available the majority of the time and you want a secondary group of resources to be on standby in case all of the primary resources become unavailable. When responding to queries, Amazon Route 53 includes only the healthy primary resources. If all of the primary resources are unhealthy, Amazon Route 53 begins to include only the healthy secondary resources in response to DNS queries.

Active-active-passive and other mixed configurations: You can combine alias and non-alias resource record sets to produce a variety of Amazon Route 53 behaviors.

Reference: <http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover.html>

#### NEW QUESTION 146

AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. You create a template that describes all the AWS resources that you want (like Amazon EC2 instances or Amazon RDS DB instances), and AWS CloudFormation takes care of provisioning and configuring those resources for you. What formatting is required for this template?

- A. JSON-formatted document
- B. CSS-formatted document
- C. XML-formatted document
- D. HTML-formatted document

**Answer:** A

**Explanation:** You can write an AWS CloudFormation template (a JSON-formatted document) in a text editor or pick an existing template. The template describes the resources you want and their settings. For example,

suppose you want to create an Amazon EC2. Your template can declare an instance Amazon EC2 and describe its properties, as shown in the following example:

```
{
  "AWSTemplateFormatVersion" : "2010-09-09",
  "Description" : "A simple Amazon EC2 instance", "Resources" : {
    "MyEC2Instance" : {
      "Type" : "AWS::EC2::Instance", "Properties" : {
        "ImageId" : "ami-2f726546", "InstanceType" : "t1.micro"
      }
    }
  }
}
```

Reference:

<http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/cfn-what-is-how-does-it-work.html>

#### NEW QUESTION 148

True or False: In Amazon Route 53, you can create a hosted zone for a top-level domain (TLD).

- A. FALSE
- B. False, Amazon Route 53 automatically creates it for you.
- C. True, only if you send an XML document with a CreateHostedZoneRequest element for TLD.
- D. TRUE

**Answer:** A

**Explanation:** In Amazon Route 53, you cannot create a hosted zone for a top-level domain (TLD).

Reference: [http://docs.aws.amazon.com/Route53/latest/APIReference/API\\_CreateHostedZone.html](http://docs.aws.amazon.com/Route53/latest/APIReference/API_CreateHostedZone.html)

#### NEW QUESTION 151

You decide that you need to create a number of Auto Scaling groups to try and save some money as you have noticed that at certain times most of your EC2 instances are not being used. By default, what is the maximum number of Auto Scaling groups that AWS will allow you to create?

- A. 12
- B. Unlimited
- C. 20
- D. 2

**Answer:** C

**Explanation:** Auto Scaling is an AWS service that allows you to increase or decrease the number of EC2 instances within your application's architecture. With Auto Scaling, you create collections of EC2 instances, called Auto Scaling groups. You can create these groups from scratch, or from existing EC2 instances that are already in production.

Reference: [http://docs.aws.amazon.com/general/latest/gr/aws\\_service\\_limits.html#limits\\_autoscaling](http://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html#limits_autoscaling)

#### NEW QUESTION 156

A user needs to run a batch process which runs for 10 minutes. This will only be run once, or at maximum twice, in the next month, so the processes will be temporary only. The process needs 15 X-Large instances. The process downloads the code from S3 on each instance when it is launched, and then generates a temporary log file. Once the instance is terminated, all the data will be lost. Which of the below mentioned pricing models should the user choose in this case?

- A. Spot instance.
- B. Reserved instance.
- C. On-demand instance.
- D. EBS optimized instanc

**Answer:** A

**Explanation:** In Amazon Web Services, the spot instance is useful when the user wants to run a process temporarily. The spot instance can terminate the instance if the other user outbids the existing bid. In this case all storage is temporary and the data is not required to be persistent. Thus, the spot instance is a good option to save money.

Reference: <http://aws.amazon.com/ec2/purchasing-options/spot-instances/>

#### NEW QUESTION 159

Which of the following is NOT a characteristic of Amazon Elastic Compute Cloud (Amazon EC2)?

- A. It can be used to launch as many or as few virtual servers as you need.
- B. It increases the need to forecast traffic by providing dynamic IP addresses for static cloud computing.
- C. It eliminates your need to invest in hardware up front, so you can develop and deploy applications faster.
- D. It offers scalable computing capacity in the Amazon Web Services (AWS) clou

**Answer:** B

**Explanation:** Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud. Using Amazon EC2 eliminates your need to invest in hardware up front, so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

#### NEW QUESTION 163

You have been storing massive amounts of data on Amazon Glacier for the past 2 years and now start to wonder if there are any limitations on this. What is the correct answer to your QUESTION ?

- A. The total volume of data is limited but the number of archives you can store are unlimited.
- B. The total volume of data is unlimited but the number of archives you can store are limited.
- C. The total volume of data and number of archives you can store are unlimited.
- D. The total volume of data is limited and the number of archives you can store are limite

**Answer:** C

**Explanation:** An archive is a durably stored block of information. You store your data in Amazon Glacier as archives. You may upload a single file as an archive, but your costs will be lower if you aggregate your data. TAR and ZIP are common formats that customers use to aggregate multiple files into a single file before uploading to Amazon Glacier.

The total volume of data and number of archives you can store are unlimited. Individual Amazon Glacier archives can range in size from 1 byte to 40 terabytes.

The largest archive that can be uploaded in a single upload request is 4 gigabytes.

For items larger than 100 megabytes, customers should consider using the Multipart upload capability. Archives stored in Amazon Glacier are immutable, i.e. archives can be uploaded and deleted but cannot be edited or overwritten.

Reference: <https://aws.amazon.com/glacier/faqs/>

#### NEW QUESTION 166

You are setting up your first Amazon Virtual Private Cloud (Amazon VPC) so you decide to use the VPC wizard in the AWS console to help make it easier for you. Which of the following statements is correct regarding instances that you launch into a default subnet via the VPC wizard?

- A. Instances that you launch into a default subnet receive a public IP address and 10 private IP addresses.
- B. Instances that you launch into a default subnet receive both a public IP address and a private IP address.
- C. Instances that you launch into a default subnet don't receive any ip addresses and you need to define them manually.
- D. Instances that you launch into a default subnet receive a public IP address and 5 private IP addresse

**Answer:** B

**Explanation:** Instances that you launch into a default subnet receive both a public IP address and a private IP address. Instances in a default subnet also receive both public and private DNS hostnames. Instances that you launch into a nondefault subnet in a default VPC don't receive a public IP address or a DNS hostname. You can change your subnet's default public IP addressing behavior.

Reference: <http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/default-vpc.html>

#### NEW QUESTION 171

Does AWS CloudFormation support Amazon EC2 tagging?

- A. Yes, AWS CloudFormation supports Amazon EC2 tagging
- B. No, CloudFormation doesn't support any tagging
- C. No, it doesn't support Amazon EC2 tagging.
- D. It depends if the Amazon EC2 tagging has been defined in the templat

**Answer:** A

**Explanation:**



In AWS CloudFormation, Amazon EC2 resources that support the tagging feature can also be tagged in an AWS template. The tag values can refer to template parameters, other resource names, resource attribute values (e.g. addresses), or values computed by simple functions (e.g., a concatenated list of strings).

Reference: <http://aws.amazon.com/cloudformation/faqs/>

#### NEW QUESTION 176

A user is accessing an EC2 instance on the SSH port for IP 10.20.30.40. Which one is a secure way to configure that the instance can be accessed only from this IP?

- A. In the security group, open port 22 for IP 10.20.30.40
- B. In the security group, open port 22 for IP 10.20.30.40/32
- C. In the security group, open port 22 for IP 10.20.30.40/24
- D. In the security group, open port 22 for IP 10.20.30.40/0

**Answer:** B

**Explanation:** In AWS EC2, while configuring a security group, the user needs to specify the IP address in CIDR notation. The CIDR IP range 10.20.30.40/32 says it is for a single IP 10.20.30.40. If the user specifies the IP as 10.20.30.40 only, the security group will not accept and ask it in a CIRD format.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-network-security.html>

#### NEW QUESTION 179

Which of the following statements is true of creating a launch configuration using an EC2 instance?

- A. The launch configuration can be created only using the Query APIs.
- B. Auto Scaling automatically creates a launch configuration directly from an EC2 instance.
- C. A user should manually create a launch configuration before creating an Auto Scaling group.
- D. The launch configuration should be created manually from the AWS CL

**Answer:** B

**Explanation:** You can create an Auto Scaling group directly from an EC2 instance. When you use this feature, Auto Scaling automatically creates a launch configuration for you as well.

Reference:

<http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/create-lc-with-instanceID.html>

#### NEW QUESTION 180

You have been using T2 instances as your CPU requirements have not been that intensive. However you now start to think about larger instance types and start looking at M and IV|3 instances. You are a little confused as to the differences between them as they both seem to have the same ratio of CPU and memory. Which statement below is incorrect as to why you would use one over the other?

- A. M3 instances are less expensive than M1 instances.
- B. IV|3 instances are configured with more swap memory than M instances.
- C. IV|3 instances provide better, more consistent performance than M instances for most use-cases.
- D. M3 instances also offer SSD-based instance storage that delivers higher I/O performance

**Answer:** B

**Explanation:** Amazon EC2 allows you to set up and configure everything about your instances from your operating system up to your applications. An Amazon Nlachine Image (AMI) is simply a packaged-up environment that includes all the necessary bits to set up and boot your instance.

M1 and M3 Standard instances have the same ratio of CPU and memory, some reasons below as to why you would use one over the other.

IV|3 instances provide better, more consistent performance than M instances for most use-cases. M3 instances also offer SSD-based instance storage that delivers higher I/O performance.

M3 instances are also less expensive than M1 instances. Due to these reasons, we recommend M3 for applications that require general purpose instances with a balance of compute, memory, and network resources.

However, if you need more disk storage than what is provided in M3 instances, you may still find M1 instances useful for running your applications.

Reference: <https://aws.amazon.com/ec2/faqs/>

#### NEW QUESTION 183

You have set up an Elastic Load Balancer (ELB) with the usual default settings, which route each request independently to the application instance with the smallest load. However, someone has asked you to bind a user's session to a specific application instance so as to ensure that all requests coming from the user during the session will be sent to the same application instance. AWS has a feature to do this. What is it called?

- A. Connection draining
- B. Proxy protocol
- C. Tagging
- D. Sticky session

**Answer:** D

**Explanation:** An Elastic Load Balancer(ELB) by default, routes each request independently to the application instance with the smallest load. However, you can use the sticky session feature (also known as session affinity), which enables the load balancer to bind a user's session to a specific application instance. This ensures that all requests coming from the user during the session will be sent to the same application instance. The key to managing the sticky session is determining how long your load balancer should consistently route the user's request to the same application instance. If your application has its own session cookie, then you can set Elastic Load Balancing to create the session cookie to follow the duration specified by the application's session cookie. If your application does not have its own session cookie, then you can set Elastic Load Balancing to create a session cookie by specifying your

own stickiness duration. You can associate stickiness duration for only HTTP/HTTPS load balancer listeners.

An application instance must always receive and send two cookies: A cookie that defines the stickiness duration and a special Elastic Load Balancing cookie named AWSELB, that has the mapping to the application instance.

Reference: <http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/TerminologyandKeyConcepts.html#session-stickiness>

#### NEW QUESTION 186

A user wants to achieve High Availability with PostgreSQL DB. Which of the below mentioned functionalities helps achieve HA?

- A. Multi AZ
- B. Read Replica
- C. Multi region
- D. PostgreSQL does not support HA

**Answer:** A

**Explanation:** The Multi AZ feature allows the user to achieve High Availability. For Multi AZ, Amazon RDS automatically provisions and maintains a synchronous "standby" replica in a different Availability Zone. Reference: <http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html>

#### NEW QUESTION 190

A user has created an application which will be hosted on EC2. The application makes calls to DynamoDB to fetch certain data. The application is using the DynamoDB SDK to connect with from the EC2 instance. Which of the below mentioned statements is true with respect to the best practice for security in this scenario?

- A. The user should create an IAM user with DynamoDB access and use its credentials within the application to connect with DynamoDB
- B. The user should attach an IAM role with DynamoDB access to the EC2 instance
- C. The user should create an IAM role, which has EC2 access so that it will allow deploying the application
- D. The user should create an IAM user with DynamoDB and EC2 access
- E. Attach the user with the application so that it does not use the root account credentials

**Answer:** B

**Explanation:** With AWS IAM a user is creating an application which runs on an EC2 instance and makes requests to AWS, such as DynamoDB or S3 calls. Here it is recommended that the user should not create an IAM user and pass the user's credentials to the application or embed those credentials inside the application. Instead, the user should use roles for EC2 and give that role access to DynamoDB / S3. When the roles are attached to EC2, it will give temporary security credentials to the application hosted on that EC2, to connect with DynamoDB / S3.

Reference: [http://docs.aws.amazon.com/IAM/latest/UserGuide/Using\\_WorkingWithGroupsAndUsers.html](http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_WorkingWithGroupsAndUsers.html)

#### NEW QUESTION 195

A user has attached 1 EBS volume to a VPC instance. The user wants to achieve the best fault tolerance of data possible. Which of the below mentioned options can help achieve fault tolerance?

- A. Attach one more volume with RAID 1 configuration.
- B. Attach one more volume with RAID 0 configuration.
- C. Connect multiple volumes and stripe them with RAID 6 configuration.
- D. Use the EBS volume as a root device

**Answer:** A

**Explanation:** The user can join multiple provisioned IOPS volumes together in a RAID 1 configuration to achieve better fault tolerance. RAID 1 does not provide a write performance improvement; it requires more bandwidth than non-RAID configurations since the data is written simultaneously to multiple volumes.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/raid-config.html>

#### NEW QUESTION 198

A user is aware that a huge download is occurring on his instance. He has already set the Auto Scaling policy to increase the instance count when the network I/O increases beyond a certain limit. How can the user ensure that this temporary event does not result in scaling?

- A. The network I/O are not affected during data download
- B. The policy cannot be set on the network I/O
- C. There is no way the user can stop scaling as it is already configured
- D. Suspend scaling

**Answer:** D

**Explanation:** The user may want to stop the automated scaling processes on the Auto Scaling groups either to perform manual operations or during emergency situations. To perform this, the user can suspend one or more scaling processes at any time. Once it is completed, the user can resume all the suspended processes. Reference: [http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AS\\_Concepts.html](http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/AS_Concepts.html)

#### NEW QUESTION 202

Select a true statement about Amazon EC2 Security Groups (EC2-Classic).

- A. After you launch an instance in EC2-Classic, you can't change its security groups.
- B. After you launch an instance in EC2-Classic, you can change its security groups only once.
- C. After you launch an instance in EC2-Classic, you can only add rules to a security group.

D. After you launch an instance in EC2-Classic, you cannot add or remove rules from a security group

**Answer:** A

**Explanation:** After you launch an instance in EC2-Classic, you can't change its security groups. However, you can add rules to or remove rules from a security group, and those changes are automatically applied to all instances that are associated with the security group.

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/using-network-security.html>

#### NEW QUESTION 206

A user has created photo editing software and hosted it on EC2. The software accepts requests from the user about the photo format and resolution and sends a message to S3 to enhance the picture accordingly. Which of the below mentioned AWS services will help make a scalable software with the AWS infrastructure in this scenario?

- A. AWS Simple Notification Service
- B. AWS Simple Queue Service
- C. AWS Elastic Transcoder
- D. AWS Glacier

**Answer:** B

**Explanation:** Amazon Simple Queue Service (SQS) is a fast, reliable, scalable, and fully managed message queuing service. SQS provides a simple and cost-effective way to decouple the components of an application. The user can configure SQS, which will decouple the call between the EC2 application and S3. Thus, the application does not keep waiting for S3 to provide the data.

Reference: <http://aws.amazon.com/sqs/faqs/>

#### NEW QUESTION 207

Which one of the following answers is not a possible state of Amazon CloudWatch Alarm?

- A. INSUFFICIENT\_DATA
- B. ALARM
- C. OK
- D. STATUS\_CHECK\_FAILED

**Answer:** D

**Explanation:** Amazon CloudWatch Alarms have three possible states: OK: The metric is within the defined threshold ALARM: The metric is outside of the defined threshold

INSUFFICIENT\_DATA: The alarm has just started, the metric is not available, or not enough data is available for the metric to determine the alarm state

Reference: <http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/AlarmThatSendsEmail.html>

#### NEW QUESTION 208

An accountant asks you to design a small VPC network for him and, due to the nature of his business, just needs something where the workload on the network will be low, and dynamic data will be accessed infrequently. Being an accountant, low cost is also a major factor. Which EBS volume type would best suit his requirements?

- A. Magnetic
- B. Any, as they all perform the same and cost the same.
- C. General Purpose (SSD)
- D. Magnetic or Provisioned IOPS (SSD)

**Answer:** A

**Explanation:** You can choose between three EBS volume types to best meet the needs of their workloads: General Purpose (SSD), Provisioned IOPS (SSD), and Magnetic. General Purpose (SSD) is the new, SSD-backed, general purpose EBS volume type that we recommend as the default choice for customers. General Purpose (SSD) volumes are suitable for a broad range of workloads, including small to medium sized databases, development and test environments, and boot volumes. Provisioned IOPS (SSD) volumes offer storage with consistent and low-latency performance, and are designed for I/O intensive applications such as large relational or NoSQL databases. Magnetic volumes provide the lowest cost per gigabyte of all EBS volume types. Magnetic volumes are ideal for workloads where data is accessed infrequently, and applications where the lowest storage cost is important.

Reference: <https://aws.amazon.com/ec2/faqs/>

#### NEW QUESTION 212

A user is planning to launch a scalable web application. Which of the below mentioned options will not affect the latency of the application?

- A. Region.
- B. Provisioned IOPS.
- C. Availability Zone.
- D. Instance size

**Answer:** C

**Explanation:** In AWS, the instance size decides the I/O characteristics. The provisioned IOPS ensures higher throughput, and lower latency. The region does affect the latency; latency will always be less when the instance is near to the end user. Within a region the user uses any AZ and this does not affect the latency. The AZ is mainly for fault toleration or HA.

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

#### NEW QUESTION 213

Which of the following strategies can be used to control access to your Amazon EC2 instances?

- A. DB security groups
- B. IAM policies
- C. None of these
- D. EC2 security groups

**Answer:** D

**Explanation:** IAM policies allow you to specify what actions your IAM users are allowed to perform against your EC2 Instances. However, when it comes to access control, security groups are what you need in order to define and control the way you want your instances to be accessed, and whether or not certain kind of communications are allowed or not.

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/UsingIAM.html>

#### NEW QUESTION 216

An organization has a statutory requirement to protect the data at rest for data stored in EBS volumes. Which of the below mentioned options can the organization use to achieve data protection?

- A. Data replication.
- B. Data encryption.
- C. Data snapshot.
- D. All the options listed her

**Answer:** D

**Explanation:** For protecting the Amazon EBS data at REST, the user can use options, such as Data Encryption (Windows / Linux / third party based), Data Replication (AWS internally replicates data for redundancy), and Data Snapshot (for point in time backup).

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

#### NEW QUESTION 221

A client of yours has a huge amount of data stored on Amazon S3, but is concerned about someone stealing it while it is in transit. You know that all data is encrypted in transit on AWS, but which of the following is wrong when describing server-side encryption on AWS?

- A. Amazon S3 server-side encryption employs strong multi-factor encryption.
- B. Amazon S3 server-side encryption uses one of the strongest block ciphers available, 256-bit Advanced Encryption Standard (AES-256), to encrypt your data.
- C. In server-side encryption, you manage encryption/decryption of your data, the encryption keys, and related tools.
- D. Server-side encryption is about data encryption at rest—that is, Amazon S3 encrypts your data as it writes it to disks.

**Answer:** C

**Explanation:** Amazon S3 encrypts your object before saving it on disks in its data centers and decrypts it when you download the objects. You have two options depending on how you choose to manage the encryption keys: Server-side encryption and client-side encryption. Server-side encryption is about data encryption at rest—that is, Amazon S3 encrypts your data as it writes it to disks in its data centers and decrypts it for you when you access it. As long as you authenticate your request and you have access permissions, there is no difference in the way you access encrypted or unencrypted objects. Amazon S3 manages encryption and decryption for you. For example, if you share your objects using a pre-signed URL, that URL works the same way for both encrypted and unencrypted objects.

In client-side encryption, you manage encryption/decryption of your data, the encryption keys, and related tools. Server-side encryption is an alternative to client-side encryption in which Amazon S3 manages the encryption of your data, freeing you from the tasks of managing encryption and encryption keys.

Amazon S3 server-side encryption employs strong multi-factor encryption. Amazon S3 encrypts each object with a unique key. As an additional safeguard, it encrypts the key itself with a master key that it regularly rotates. Amazon S3 server-side encryption uses one of the strongest block ciphers available, 256-bit Advanced Encryption Standard (AES-256), to encrypt your data.

Reference: <http://docs.aws.amazon.com/AmazonS3/latest/dev/UsingServerSideEncryption.html>

#### NEW QUESTION 224

A user is running a batch process which runs for 1 hour every day. Which of the below mentioned options is the right instance type and costing model in this case if the user performs the same task for the whole year?

- A. EBS backed instance with on-demand instance pricing.
- B. EBS backed instance with heavy utilized reserved instance pricing.
- C. EBS backed instance with low utilized reserved instance pricing.
- D. Instance store backed instance with spot instance pricin

**Answer:** A

**Explanation:** For Amazon Web Services, the reserved instance helps the user save money if the user is going to run the same instance for a longer period. Generally if the user uses the instances around 30-40% annually it is recommended to use RI. Here as the instance runs only for 1 hour daily it is not recommended to have RI as it will be costlier. The user should use on-demand with EBS in this case.

Reference: <http://aws.amazon.com/ec2/purchasing-options/reserved-instances/>

#### NEW QUESTION 225



You have just set up a large site for a client which involved a huge database which you set up with Amazon RDS to run as a Multi-AZ deployment. You now start to worry about what will happen if the database instance fails. Which statement best describes how this database will function if there is a database failure?

- A. Updates to your DB Instance are synchronously replicated across Availability Zones to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.
- B. Your database will not resume operation without manual administrative intervention.
- C. Updates to your DB Instance are asynchronously replicated across Availability Zones to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.
- D. Updates to your DB Instance are synchronously replicated across S3 to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.

**Answer:** A

**Explanation:** Amazon Relational Database Service (Amazon RDS) is a managed service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity, while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

When you create or modify your DB Instance to run as a Multi-AZ deployment, Amazon RDS automatically provisions and maintains a synchronous "standby" replica in a different Availability Zone. Updates to your DB Instance are synchronously replicated across Availability Zones to the standby in order to keep both in sync and protect your latest database updates against DB Instance failure.

During certain types of planned maintenance, or in the unlikely event of DB Instance failure or Availability Zone failure, Amazon RDS will automatically failover to the standby so that you can resume database writes and reads as soon as the standby is promoted. Since the name record for your DB Instance remains the same, your application can resume database operation without the need for manual administrative intervention. With Multi-AZ deployments, replication is transparent: you do not interact directly with the standby, and it cannot be used to serve read traffic. If you are using Amazon RDS for MySQL and are looking to scale read traffic beyond the capacity constraints of a single DB Instance, you can deploy one or more Read Replicas.

Reference: <http://aws.amazon.com/rds/faqs/>

#### NEW QUESTION 227

A user is observing the EC2 CPU utilization metric on CloudWatch. The user has observed some interesting patterns while filtering over the 1 week period for a particular hour. The user wants to zoom that data point to a more granular period. How can the user do that easily with CloudWatch?

- A. The user can zoom a particular period by selecting that period with the mouse and then releasing the mouse
- B. The user can zoom a particular period by specifying the aggregation data for that period
- C. The user can zoom a particular period by double clicking on that period with the mouse
- D. The user can zoom a particular period by specifying the period in the Time Range

**Answer:** A

**Explanation:** Amazon CloudWatch provides the functionality to graph the metric data generated either by the AWS services or the custom metric to make it easier for the user to analyse. The AWS CloudWatch console provides the option to change the granularity of a graph and zoom in to see data over a shorter time period. To zoom, the user has to click in the graph details pane, drag on the graph area for selection, and then release the mouse button.

Reference: [http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/zoom\\_in\\_on\\_graph.html](http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/zoom_in_on_graph.html)

#### NEW QUESTION 232

A scope has been handed to you to set up a super fast gaming server and you decide that you will use Amazon DynamoDB as your database. For efficient access to data in a table, Amazon DynamoDB creates and maintains indexes for the primary key attributes. A secondary index is a data structure that contains a subset of attributes from a table, along with an alternate key to support Query operations. How many types of secondary indexes does DynamoDB support?

- A. 2
- B. 16
- C. 4
- D. As many as you need

**Answer:** A

**Explanation:** DynamoDB supports two types of secondary indexes:

Local secondary index — an index that has the same hash key as the table, but a different range key. A local secondary index is "local" in the sense that every partition of a local secondary index is scoped to a table partition that has the same hash key.

Global secondary index — an index with a hash and range key that can be different from those on the table. A global secondary index is considered "global" because queries on the index can span all of the data in a table, across all partitions.

Reference: <http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/SecondaryIndexes.html>

#### NEW QUESTION 237

Select the correct statement: Within Amazon EC2, when using Linux instances, the device name /dev/sda1 is .

- A. reserved for EBS volumes
- B. recommended for EBS volumes
- C. recommended for instance store volumes
- D. reserved for the root device

**Answer:** D

**Explanation:** Within Amazon EC2, when using a Linux instance, the device name /dev/sda1 is reserved for the root device.

Reference: [http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/device\\_naming.html](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/device_naming.html)

#### NEW QUESTION 238

The common use cases for DynamoDB Fine-Grained Access Control (FGAC) are cases in which the end user wants .

- A. to change the hash keys of the table directly
- B. to check if an IAM policy requires the hash keys of the tables directly
- C. to read or modify any codecommit key of the table directly, without a middle-tier service
- D. to read or modify the table directly, without a middle-tier service

**Answer:** D

**Explanation:** FGAC can benefit any application that tracks information in a DynamoDB table, where the end user (or application client acting on behalf of an end user) wants to read or modify the table directly, without a middle-tier service. For instance, a developer of a mobile app named Acme can use FGAC to track the top score of every Acme user in a DynamoDB table. FGAC allows the application client to modify only the top score for the user that is currently running the application.

Reference: [http://aws.amazon.com/dynamodb/faqs/#security\\_anchor](http://aws.amazon.com/dynamodb/faqs/#security_anchor)

#### NEW QUESTION 239

You need to set up security for your VPC and you know that Amazon VPC provides two features that you can use to increase security for your VPC: security groups and network access control lists (ACLs). You have already looked into security groups and you are now trying to understand ACLs. Which statement below is incorrect in relation to ACLs?

- A. Supports allow rules and deny rules.
- B. Is stateful: Return traffic is automatically allowed, regardless of any rules.
- C. Processes rules in number order when deciding whether to allow traffic.
- D. Operates at the subnet level (second layer of defense).

**Answer:** B

**Explanation:** Amazon VPC provides two features that you can use to increase security for your VPC:

Security groups—Act as a firewall for associated Amazon EC2 instances, controlling both inbound and outbound traffic at the instance level

Network access control lists (ACLs)—Act as a firewall for associated subnets, controlling both inbound and outbound traffic at the subnet level

Security groups are stateful: (Return traffic is automatically allowed, regardless of any rules) Network ACLs are stateless: (Return traffic must be explicitly allowed by rules)

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Security.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Security.html)

#### NEW QUESTION 240

A user comes to you and wants access to Amazon CloudWatch but only wants to monitor a specific LoadBalancer. Is it possible to give him access to a specific set of instances or a specific LoadBalancer?

- A. No because you can't use IAM to control access to CloudWatch data for specific resources.
- B. Ye
- C. You can use IAM to control access to CloudWatch data for specific resources.
- D. No because you need to be Sysadmin to access CloudWatch data.
- E. Ye
- F. Any user can see all CloudWatch data and needs no access right

**Answer:** A

**Explanation:** Amazon CloudWatch integrates with AWS Identity and Access Management (IAM) so that you can

specify which CloudWatch actions a user in your AWS Account can perform. For example, you could create an IAM policy that gives only certain users in your organization permission to use GetMetricStatistics. They could then use the action to retrieve data about your cloud resources.

You can't use IAM to control access to CloudWatch data for specific resources. For example, you can't give a user access to CloudWatch data for only a specific set of instances or a specific LoadBalancer. Permissions granted using IAM cover all the cloud resources you use with CloudWatch. In addition, you can't use IAM roles with the Amazon CloudWatch command line tools.

Using Amazon CloudWatch with IAM doesn't change how you use CloudWatch. There are no changes to CloudWatch actions, and no new CloudWatch actions related to users and access control.

Reference: <http://docs.aws.amazon.com/AmazonCloudWatch/latest/DeveloperGuide/UsingIAM.html>

#### NEW QUESTION 242

A user is planning to make a mobile game which can be played online or offline and will be hosted on EC2.

The user wants to ensure that if someone breaks the highest score or they achieve some milestone they can inform all their colleagues through email. Which of the below mentioned AWS services helps achieve this goal?

- A. AWS Simple Workflow Service.
- B. AWS Simple Email Service.
- C. Amazon Cognito
- D. AWS Simple Queue Servic

**Answer:** B

**Explanation:** Amazon Simple Email Service (Amazon SES) is a highly scalable and cost-effective email-sending service for businesses and developers. It integrates with other AWS services, making it easy to send emails from applications that are hosted on AWS.

Reference: <http://aws.amazon.com/ses/faqs/>

#### NEW QUESTION 246

You have multiple VPN connections and want to provide secure communication between sites using the AWS VPN CloudHub. Which statement is the most accurate in describing what you must do to set this up correctly?

- A. Create a virtual private gateway with multiple customer gateways, each with unique Border Gateway Protocol (BGP) Autonomous System Numbers (ASNs)
- B. Create a virtual private gateway with multiple customer gateways, each with a unique set of keys
- C. Create a virtual public gateway with multiple customer gateways, each with a unique Private subnet
- D. Create a virtual private gateway with multiple customer gateways, each with unique subnet id

**Answer:** A

**Explanation:** If you have multiple VPN connections, you can provide secure communication between sites using the AWS VPN CloudHub. The VPN CloudHub operates on a simple hub-and-spoke model that you can use with or without a VPC. This design is suitable for customers with multiple branch offices and existing Internet connections who'd like to implement a convenient, potentially low-cost hub-and-spoke model for primary or backup connectMty between these remote offices.

To use the AWS VPN CloudHub, you must create a virtual private gateway with multiple customer gateways, each with unique Border Gateway Protocol (BGP) Autonomous System Numbers (ASNs). Customer gateways advertise the appropriate routes (BGP prefixes) over their VPN connections. These routing advertisements are received and re-advertised to each BGP peer, enabling each site to send data to and receive data from the other sites. The routes for each spoke must have unique ASNs and the sites must not have overlapping IP ranges. Each site can also send and receive data from the VPC as if they were using a standard VPN connection.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPN\\_CloudHub.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPN_CloudHub.html)

#### NEW QUESTION 250

You need to create an Amazon Machine Image (AM) for a customer for an application which does not appear to be part of the standard AWS AM template that you can see in the AWS console. What are the alternative possibilities for creating an AM on AWS?

- A. You can purchase an AMs from a third party but cannot create your own AM.
- B. You can purchase an AMIs from a third party or can create your own AMI.
- C. Only AWS can create AMIs and you need to wait till it becomes available.
- D. Only AWS can create AMIs and you need to request them to create one for yo

**Answer:** B

**Explanation:** You can purchase an AMIs from a third party, including AMIs that come with service contracts from organizations such as Red Hat. You can also create an AMI and sell it to other Amazon EC2 users. After you create an AMI, you can keep it private so that only you can use it, or you can share it with a specified list of AWS accounts. You can also make your custom AMI public so that the community can

use it. Building a safe, secure, usable AMI for public consumption is a fairly straightforward process, if you follow a few simple guidelines.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.htm>

#### NEW QUESTION 252

While creating an Amazon RDS DB, your first task is to set up a DB that controls which IP address or EC2 instance can access your DB Instance.

- A. security token pool
- B. security token
- C. security pool
- D. security group

**Answer:** D

**Explanation:** While creating an Amazon RDS DB, your first task is to set up a DB Security Group that controls what IP addresses or EC2 instances have access to your DB Instance.

Reference: [http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_WorkingWithSecurityGroups.html](http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithSecurityGroups.html)

#### NEW QUESTION 255

Which one of the below is not an AWS Storage Service?

- A. Amazon S3
- B. Amazon Glacier
- C. Amazon CloudFront
- D. Amazon EBS

**Answer:** C

**Explanation:** AWS Storage Services are: Amazon S3

Amazon Glacier Amazon EBS

AWS Storage Gateway

Reference: <https://console.aws.amazon.com/console>

#### NEW QUESTION 256

You are very concerned about security on your network because you have multiple programmers testing APIs and SDKs and you have no idea what is happening. You think C|oudTrail| may help but are not sure what it does. Which of the following statements best describes the AWS service CloudTrail?

- A. With AWS CloudTrail you can get a history of AWS API calls and related events for your account.
- B. With AWS CloudTrail you can get a history of IAM users for your account.
- C. With AWS CloudTrail you can get a history of S3 logfiles for your account.
- D. With AWS CloudTrail you can get a history of CloudFormation JSON scripts used for your accoun

**Answer:** A

**Explanation:** With AWS CloudTrail, you can get a history of AWS API calls for your account, including API calls made via the AWS Management Console, the AWS SDKs, the command line tools, and higher-level AWS services. You can also identify which users and accounts called AWS APIs for services that support CloudTrail, the source IP address the calls were made from, and when the calls occurred.

You can identify which users and accounts called AWS for services that support CloudTrail, the source IP address the calls were made from, and when the calls occurred. You can integrate CloudTrail into applications using the API, automate trail creation for your organization, check the status of your trails, and control how administrators turn CloudTrail logging on and off.

Reference: [http://docs.aws.amazon.com/awscloudtrail/latest/userguide/what\\_is\\_cloud\\_trail\\_top\\_level.html](http://docs.aws.amazon.com/awscloudtrail/latest/userguide/what_is_cloud_trail_top_level.html)

#### NEW QUESTION 257

Regarding Amazon Route 53, if your application is running on Amazon EC2 instances in two or more Amazon EC2 regions and if you have more than one Amazon EC2 instance in one or more regions, you can use to route traffic to the correct region and then use to route traffic to instances within the region, based on probabilities that you specify.

- A. weighted-based routing; alias resource record sets
- B. latency-based routing; weighted resource record sets
- C. weighted-based routing; weighted resource record sets
- D. latency-based routing; alias resource record sets

**Answer:** B

**Explanation:** Regarding Amazon Route 53, if your application is running on Amazon EC2 instances in two or more Amazon EC2 regions, and if you have more than one Amazon EC2 instance in one or more regions, you can use latency-based routing to route traffic to the correct region and then use weighted resource record sets to route traffic to instances within the region based on weights that you specify.

Reference: <http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/Tutorials.html>

#### NEW QUESTION 260

You have a lot of data stored in the AWS Storage Gateway and your manager has come to you asking about how the billing is calculated, specifically the Virtual Tape Shelf usage. What would be a correct response to this?

- A. You are billed for the virtual tape data you store in Amazon Glacier and are billed for the size of the virtual tape.
- B. You are billed for the virtual tape data you store in Amazon Glacier and billed for the portion of virtual tape capacity that you use, not for the size of the virtual tape.
- C. You are billed for the virtual tape data you store in Amazon S3 and billed for the portion of virtual tape capacity that you use, not for the size of the virtual tape.
- D. You are billed for the virtual tape data you store in Amazon S3 and are billed for the size of the virtual tape.

**Answer:** B

**Explanation:** The AWS Storage Gateway is a service connecting an on-premises software appliance with cloud-based storage to provide seamless and secure integration between an organization's on-premises IT environment and AWS's storage infrastructure.

AWS Storage Gateway billing is as follows. Volume storage usage (per GB per month):

You are billed for the Cached volume data you store in Amazon S3. You are only billed for volume capacity you use, not for the size of the volume you create.

Snapshot Storage usage (per GB per month): You are billed for the snapshots your gateway stores in Amazon S3. These snapshots are stored and billed as Amazon EBS snapshots. Snapshots are incremental backups, reducing your storage charges. When taking a new snapshot, only the data that has changed since your last snapshot is stored.

Virtual Tape Library usage (per GB per month):

You are billed for the virtual tape data you store in Amazon S3. You are only billed for the portion of virtual tape capacity that you use, not for the size of the virtual tape.

Virtual Tape Shelf usage (per GB per month):

You are billed for the virtual tape data you store in Amazon Glacier. You are only billed for the portion of virtual tape capacity that you use, not for the size of the virtual tape.

Reference: <https://aws.amazon.com/storagegateway/faqs/>

#### NEW QUESTION 265

You are configuring a new VPC for one of your clients for a cloud migration project, and only a public VPN will be in place. After you created your VPC, you created a new subnet, a new internet gateway, and attached your internet gateway to your VPC. When you launched your first instance into your VPC, you realized that you aren't able to connect to the instance, even if it is configured with an elastic IP. What should be done to access the instance?

- A. A route should be created as 0.0.0.0/0 and your internet gateway as target.
- B. Attach another ENI to the instance and connect via new ENI.
- C. A NAT instance should be created and all traffic should be forwarded to NAT instance.
- D. A NACL should be created that allows all outbound traffic

**Answer:** A

**Explanation:** All traffic should be routed via Internet Gateway. So, a route should be created with 0.0.0.0/0 as a source, and your Internet Gateway as your target.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Scenario1.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Scenario1.html)

#### NEW QUESTION 270

A user is currently building a website which will require a large number of instances in six months, when a demonstration of the new site will be given upon launch. Which of the below mentioned options allows the user to procure the resources beforehand so that they need not worry about infrastructure availability during the demonstration?

- A. Procure all the instances as reserved instances beforehand.



- B. Launch all the instances as part of the cluster group to ensure resource availability.
- C. Pre-warm all the instances one month prior to ensure resource availability.
- D. Ask AWS now to procure the dedicated instances in 6 month

**Answer:** A

**Explanation:** Amazon Web Services has massive hardware resources at its data centers, but they are finite. The best way for users to maximize their access to these resources is by reserving a portion of the computing capacity that they require. This can be done through reserved instances. With reserved instances, the user literally reserves the computing capacity in the Amazon Web Services cloud.

Reference: [http://media.amazonwebservices.com/AWS\\_Building\\_Fault\\_Tolerant\\_Applications.pdf](http://media.amazonwebservices.com/AWS_Building_Fault_Tolerant_Applications.pdf)

#### NEW QUESTION 275

You are setting up some EBS volumes for a customer who has requested a setup which includes a RAID (redundant array of inexpensive disks). AWS has some recommendations for RAID setups. Which RAID setup is not recommended for Amazon EBS?

- A. RAID 5 only
- B. RAID 5 and RAID 6
- C. RAID 1 only
- D. RAID 1 and RAID 6

**Answer:** B

**Explanation:** With Amazon EBS, you can use any of the standard RAID configurations that you can use with a traditional bare metal server, as long as that particular RAID configuration is supported by the operating system for your instance. This is because all RAID is accomplished at the software level. For greater I/O performance than you can achieve with a single volume, RAID 0 can stripe multiple volumes together; for on-instance redundancy, RAID 1 can mirror two volumes together.

RAID 5 and RAID 6 are not recommended for Amazon EBS because the parity write operations of these RAID modes consume some of the IOPS available to your volumes.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/raid-config.html>

#### NEW QUESTION 276

You receive the following request from a client to quickly deploy a static website for them, specifically on AWS. The requirements are low-cost, reliable, online storage, and a reliable and cost-effective way to route customers to the website, as well as a way to deliver content with low latency and high data transfer speeds so that visitors to his website don't experience unnecessary delays. What do you think would be the minimum AWS services that could fulfill the client's request?

- A. Amazon Route 53, Amazon CloudFront and Amazon VPC.
- B. Amazon S3, Amazon Route 53 and Amazon RDS
- C. Amazon S3, Amazon Route 53 and Amazon CloudFront
- D. Amazon S3 and Amazon Route 53.

**Answer:** C

**Explanation:** You can easily and inexpensively use AWS to host a website that uses client-side technologies (such as HTML, CSS, and JavaScript) and does not require server-side technologies (such as PHP and ASP.NET). This type of site is called a static website, and is used to display content that does not change frequently. Before you create and deploy a static website, you must plan your architecture to ensure that it meets your requirements. Amazon S3, Amazon Route 53, and Amazon CloudFront would be required in this instance.

Reference: <http://docs.aws.amazon.com/gettingstarted/latest/swlh/website-hosting-intro.html>

#### NEW QUESTION 278

What is the default maximum number of Access Keys per user?

- A. 10
- B. 15
- C. 2
- D. 20

**Answer:** C

**Explanation:** The default maximum number of Access Keys per user is 2.

Reference: <http://docs.aws.amazon.com/IAM/latest/UserGuide/LimitationsOnEntities.html>

#### NEW QUESTION 281

What is the network performance offered by the c4.8xlarge instance in Amazon EC2?

- A. 20 Gigabit
- B. 10 Gigabit
- C. Very High but variable
- D. 5 Gigabit

**Answer:** B

**Explanation:** Networking performance offered by the c4.8xlarge instance is 10 Gigabit. Reference: <http://aws.amazon.com/ec2/instance-types/>

#### NEW QUESTION 284

Doug has created a VPC with CIDR 10.201.0.0/16 in his AWS account. In this VPC he has created a public subnet with CIDR block 10.201.31.0/24. While launching a new EC2 from the console, he is not able to assign the private IP address 10.201.31.6 to this instance. Which is the most likely reason for this issue?

- A. Private IP address 10.201.31.6 is blocked via ACLs in Amazon infrastructure as a part of platform security.
- B. Private address IP 10.201.31.6 is currently assigned to another interface.
- C. Private IP address 10.201.31.6 is not part of the associated subnet's IP address range.
- D. Private IP address 10.201.31.6 is reserved by Amazon for IP networking purpose

**Answer:** B

**Explanation:** In Amazon VPC, you can assign any Private IP address to your instance as long as it is: Part of the associated subnet's IP address range  
Not reserved by Amazon for IP networking purposes  
Not currently assigned to another interface  
Reference: <http://aws.amazon.com/vpc/faqs/>

#### NEW QUESTION 286

You need to create a JSON-formatted text file for AWS CloudFormation. This is your first template and the only thing you know is that the templates include several major sections but there is only one that is required for it to work. What is the only section required?

- A. Mappings
- B. Outputs
- C. Resources
- D. Conditions

**Answer:** C

**Explanation:** AWS CloudFormation is a service that helps you model and set up your Amazon Web Services resources so that you can spend less time managing those resources and more time focusing on your applications that run in AWS. You create a template that describes all the AWS resources that you want (like Amazon EC2 instances or Amazon RDS DB instances), and AWS CloudFormation takes care of provisioning and configuring those resources for you.

A template is a JSON-formatted text file that describes your AWS infrastructure. Templates include several major sections.

The Resources section is the only section that is required.

The first character in the template must be an open brace ({), and the last character must be a closed brace (}). The following template fragment shows the template structure and sections.

Reference: <http://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/template-anatomy.html>

#### NEW QUESTION 287

Can a single EBS volume be attached to multiple EC2 instances at the same time?

- A. Yes
- B. No
- C. Only for high-performance EBS volumes.
- D. Only when the instances are located in the US region

**Answer:** B

**Explanation:** You can't attach an EBS volume to multiple EC2 instances. This is because it is equivalent to using a single hard drive with many computers at the same time.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AmazonEBS.html>

#### NEW QUESTION 288

Your organization is in the business of architecting complex transactional databases. For a variety of reasons, this has been done on EBS. What is AWS's recommendation for customers who have architected databases using EBS for backups?

- A. Backups to Amazon S3 be performed through the database management system.
- B. Backups to AWS Storage Gateway be performed through the database management system.
- C. If you take regular snapshots no further backups are required.
- D. Backups to Amazon Glacier be performed through the database management system

**Answer:** A

**Explanation:** Data stored in Amazon EBS volumes is redundantly stored in multiple physical locations as part of normal operation of those services and at no additional charge.

However, Amazon EBS replication is stored within the same availability zone, not across multiple zones; therefore, it is highly recommended that you conduct regular snapshots to Amazon S3 for long-term data durability.

For customers who have architected complex transactional databases using EBS, it is recommended that backups to Amazon S3 be performed through the database management system so that distributed transactions and logs can be checkpointed.

AWS does not perform backups of data that are maintained on virtual disks attached to running instances on Amazon EC2.

Reference: <http://d0.awsstatic.com/whitepapers/Security/AWS%20Security%20Whitepaper.pdf>

#### NEW QUESTION 292

A user has created a CloudFormation stack. The stack creates AWS services, such as EC2 instances, ELB, AutoScaling, and RDS. While creating the stack it created EC2, ELB and AutoScaling but failed to create RDS. What will CloudFormation do in this scenario?

- A. Rollback all the changes and terminate all the created services
- B. It will wait for the user's input about the error and correct the mistake after the input
- C. CloudFormation can never throw an error after launching a few services since it verifies all the steps before launching

D. It will warn the user about the error and ask the user to manually create RDS

**Answer:** A

**Explanation:** AWS CloudFormation is an application management tool which provides application modeling, deployment, configuration, management and related activities. The AWS CloudFormation stack is a collection of AWS resources which are created and managed as a single unit when AWS CloudFormation instantiates a template. If any of the services fails to launch, CloudFormation will rollback all the changes and terminate or delete all the created services.  
Reference: <http://aws.amazon.com/cloudformation/faqs/>

#### NEW QUESTION 294

A major client who has been spending a lot of money on his internet service provider asks you to set up an AWS Direct Connection to try and save him some money. You know he needs high-speed connectivity. Which connection port speeds are available on AWS Direct Connect?

- A. 500Mbps and 1Gbps
- B. 1Gbps and 10Gbps
- C. 100Mbps and 1Gbps
- D. 1Gbps

**Answer:** B

**Explanation:** AWS Direct Connect is a network service that provides an alternative to using the internet to utilize AWS cloud services. Using AWS Direct Connect, data that would have previously been transported over the Internet can now be delivered through a private network connection between AWS and your datacenter or corporate network. 1Gbps and 10Gbps ports are available. Speeds of 50Mbps, 100Mbps, 200Mbps, 300Mbps, 400Mbps, and 500Mbps can be ordered from any APN partners supporting AWS Direct Connect.  
Reference: <https://aws.amazon.com/directconnect/faqs/>

#### NEW QUESTION 295

In Amazon EC2, what is the limit of Reserved Instances per Availability Zone each month?

- A. 5
- B. 20
- C. 50
- D. 10

**Answer:** B

**Explanation:** There are 20 Reserved Instances per Availability Zone in each month.  
Reference: [http://docs.aws.amazon.com/general/latest/gr/aws\\_service\\_limits.html](http://docs.aws.amazon.com/general/latest/gr/aws_service_limits.html)

#### NEW QUESTION 296

You have just finished setting up an advertisement server in which one of the obvious choices for a service was Amazon Elastic Map Reduce (EMR) and are now troubleshooting some weird cluster states that you are seeing. Which of the below is not an Amazon EMR cluster state?

- A. STARTING
- B. STOPPED
- C. RUNNING
- D. WAITING

**Answer:** B

**Explanation:** Amazon Elastic Map Reduce (EMR) is a web service that enables businesses, researchers, data analysts, and developers to easily and cost-effectively process vast amounts of data. Amazon EMR historically referred to an Amazon EMR cluster (and all processing steps assigned to it) as a "cluster". Every cluster has a unique identifier that starts with "j-". The different cluster states of an Amazon EMR cluster are listed below. STARTING — The cluster provisions, starts, and configures EC2 instances. BOOTSTRAPPING — Bootstrap actions are being executed on the cluster. RUNNING — A step for the cluster is currently being run. WAITING — The cluster is currently active, but has no steps to run. TERMINATING - The cluster is in the process of shutting down. TERMINATED - The cluster was shut down without error. TERMINATED\_WITH\_ERRORS - The cluster was shut down with errors.  
Reference: <https://aws.amazon.com/elasticmapreduce/faqs/>

#### NEW QUESTION 301

The AWS CloudHSM service defines a resource known as a high-availability (HA) partition group, which is a virtual partition that represents a group of partitions, typically distributed between several physical HSMs for high-availability.

- A. proxy group
- B. partition group
- C. functional group
- D. relational group

**Answer:** B

**Explanation:** The AWS CloudHSM service defines a resource known as a high-availability (HA) partition group, which is a virtual partition that represents a group of partitions, typically distributed between several physical HSMs for high-availability.

Reference: <http://docs.aws.amazon.com/cloudhsm/latest/userguide/configuring-ha.html>

### NEW QUESTION 303

You have just set up your first Elastic Load Balancer (ELB) but it does not seem to be configured properly. You discover that before you start using ELB, you have to configure the listeners for your load balancer. Which protocols does ELB use to support the load balancing of applications?

- A. HTTP and HTTPS
- B. HTTP, HTTPS, TCP, SSL and SSH
- C. HTTP, HTTPS, TCP, and SSL
- D. HTTP, HTTPS, TCP, SSL and SFTP

**Answer:** C

**Explanation:** Before you start using Elastic Load Balancing (ELB), you have to configure the listeners for your load balancer. A listener is a process that listens for connection requests. It is configured with a protocol and a port number for front-end (client to load balancer) and back-end (load balancer to back-end instance) connections.

Elastic Load Balancing supports the load balancing of applications using HTTP, HTTPS (secure HTTP), TCP, and SSL (secure TCP) protocols. The HTTPS uses the SSL protocol to establish secure connections over the HTTP layer. You can also use SSL protocol to establish secure connections over the TCP layer.

The acceptable ports for both HTTPS/SSL and HTTP/TCP connections are 25, 80, 443, 465, 587, and 1024-65535.

Reference:

<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/elb-listener-config.html>

### NEW QUESTION 304

After setting up some EC2 instances you now need to set up a monitoring solution to keep track of these instances and to send you an email when the CPU hits a certain threshold. Which statement below best describes what thresholds you can set to trigger a CloudWatch Alarm?

- A. Set a target value and choose whether the alarm will trigger when the value is greater than (>), greater than or equal to (>=), less than (<), or less than or equal to (<=) that value.
- B. Thresholds need to be set in IAM not CloudWatch
- C. Only default thresholds can be set you can't choose your own thresholds.
- D. Set a target value and choose whether the alarm will trigger when the value hits this threshold

**Answer:** A

**Explanation:** Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS. You can use Amazon CloudWatch to collect and track metrics, collect and monitor log files, and set alarms.

When you create an alarm, you first choose the Amazon CloudWatch metric you want it to monitor. Next, you choose the evaluation period (e.g., five minutes or one hour) and a statistical value to measure (e.g., Average or Maximum).

To set a threshold, set a target value and choose whether the alarm will trigger when the value is greater than (>), greater than or equal to (>=), less than (<), or less than or equal to (<=) that value.

Reference: <http://aws.amazon.com/cloudwatch/faqs/>

### NEW QUESTION 307

After moving an E-Commerce website for a client from a dedicated server to AWS you have also set up auto scaling to perform health checks on the instances in your group and replace instances that fail these checks. Your client has come to you with his own health check system that he wants you to use as it has proved to be very useful prior to his site running on AWS. What do you think would be an appropriate response to this given all that you know about auto scaling?

- A. It is not possible to implement your own health check system
- B. You need to use AWS's health check system.
- C. It is not possible to implement your own health check system due to compatibility issues.
- D. It is possible to implement your own health check system and then send the instance's health information directly from your system to Cloud Watch.
- E. It is possible to implement your own health check system and then send the instance's health information directly from your system to Cloud Watch but only in the US East (
- F. Virginia) region.

**Answer:** C

**Explanation:** Auto Scaling periodically performs health checks on the instances in your group and replaces instances that fail these checks. By default, these health checks use the results of EC2 instance status checks to determine the health of an instance. If you use a load balancer with your Auto Scaling group, you can optionally choose to include the results of Elastic Load Balancing health checks.

Auto Scaling marks an instance unhealthy if the calls to the Amazon EC2 action DescribeInstanceStatus returns any other state other than running, the system status shows impaired, or the calls to Elastic Load Balancing action DescribeInstanceHealth returns OutOfService in the instance state field.

After an instance is marked unhealthy because of an Amazon EC2 or Elastic Load Balancing health check, it is scheduled for replacement.

You can customize the health check conducted by your Auto Scaling group by specifying additional checks or by having your own health check system and then sending the instance's health information directly from your system to Auto Scaling.

Reference: <http://docs.aws.amazon.com/AutoScaling/latest/DeveloperGuide/healthcheck.html>

### NEW QUESTION 309

When does the billing of an Amazon EC2 system begin?

- A. It starts when the Status column for your distribution changes from Creating to Deployed.
- B. It starts as soon as you click the create instance option on the main EC2 console.
- C. It starts when your instance reaches 720 instance hours.



D. It starts when Amazon EC2 initiates the boot sequence of an AM instance

**Answer:** D

**Explanation:** Billing commences when Amazon EC2 initiates the boot sequence of an AM instance. Billing ends when the instance terminates, which could occur through a web services command, by running "shutdown -h", or through instance failure. When you stop an instance, Amazon shuts it down but doesn't charge hourly usage for a stopped instance, or data transfer fees, but charges for the storage for any Amazon EBS volumes.

Reference: <http://aws.amazon.com/ec2/faqs/>

#### NEW QUESTION 312

You have just discovered that you can upload your objects to Amazon S3 using Multipart Upload API. You start to test it out but are unsure of the benefits that it would provide. Which of the following is not a benefit of using multipart uploads?

- A. You can begin an upload before you know the final object size.
- B. Quick recovery from any network issues.
- C. Pause and resume object uploads.
- D. It's more secure than normal upload

**Answer:** D

**Explanation:** Multipart upload in Amazon S3 allows you to upload a single object as a set of parts. Each part is a contiguous portion of the object's data. You can upload these object parts independently and in any order.

If transmission of any part fails, you can re-transmit that part without affecting other parts. After all parts of your object are uploaded, Amazon S3 assembles these parts and creates the object. In general, when

your object size reaches 100 MB, you should consider using multipart uploads instead of uploading the object in a single operation.

Using multipart upload provides the following advantages:

Improved throughput—You can upload parts in parallel to improve throughput.

Quick recovery from any network issues—Smaller part size minimizes the impact of restarting a failed upload due to a network error.

Pause and resume object uploads—You can upload object parts over time. Once you initiate a multipart upload there is no expiry; you must explicitly complete or abort the multipart upload.

Begin an upload before you know the final object size—You can upload an object as you are creating it. Reference:

<http://docs.aws.amazon.com/AmazonS3/latest/dev/uploadobjusingmpu.html>

#### NEW QUESTION 317

What is the data model of DynamoDB?

- A. Since DynamoDB is schema-less, there is no data model.
- B. "Items", with Keys and one or more Attribute; and "Attribute", with Name and Value.
- C. "Table", a collection of Items; "Items", with Keys and one or more Attribute; and "Attribute", with Name and Value.
- D. "Database", which is a set of "Tables", which is a set of "Items", which is a set of "Attributes".

**Answer:** C

**Explanation:** The data model of DynamoDB is: "Table", a collection of Items;

"Items", with Keys and one or more Attribute; "Attribute", with Name and Value.

Reference: <http://docs.aws.amazon.com/amazondynamodb/latest/developerguide/DataModel.html>

#### NEW QUESTION 319

What happens to Amazon EBS root device volumes, by default, when an instance terminates?

- A. Amazon EBS root device volumes are moved to IAM.
- B. Amazon EBS root device volumes are copied into Amazon RDS.
- C. Amazon EBS root device volumes are automatically deleted.
- D. Amazon EBS root device volumes remain in the database until you delete the

**Answer:** C

**Explanation:** By default, Amazon EBS root device volumes are automatically deleted when the instance terminates. Reference:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/terminating-instances.html>

#### NEW QUESTION 322

A favored client needs you to quickly deploy a database that is a relational database service with minimal administration as he wants to spend the least amount of time administering it. Which database would be the best option?

- A. Amazon SimpleDB
- B. Your choice of relational AMs on Amazon EC2 and EBS.
- C. Amazon RDS
- D. Amazon Redshift

**Answer:** C

**Explanation:** Amazon Relational Database Service (Amazon RDS) is a web service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

Amazon RDS gives you access to the capabilities of a familiar MySQL, Oracle, SQL Server, or PostgreSQL database engine. This means that the code, applications, and tools you already use today with your existing databases can be used with Amazon RDS. Amazon RDS automatically patches the database software and backs up your database, storing the backups for a user-defined retention period and enabling point-in-time recovery.

Reference: [https://aws.amazon.com/running\\_databases/#rds\\_anchor](https://aws.amazon.com/running_databases/#rds_anchor)

#### NEW QUESTION 327

You need to set up security for your VPC and you know that Amazon VPC provides two features that you can use to increase security for your VPC: Security groups and network access control lists (ACLs). You start to look into security groups first. Which statement below is incorrect in relation to security groups?

- A. Are stateful: Return traffic is automatically allowed, regardless of any rules.
- B. Evaluate all rules before deciding whether to allow traffic.
- C. Support allow rules and deny rules.
- D. Operate at the instance level (first layer of defense).

**Answer:** C

**Explanation:** Amazon VPC provides two features that you can use to increase security for your VPC:

Security groups—Act as a firewall for associated Amazon EC2 instances, controlling both inbound and outbound traffic at the instance level and supports allow rules only.

Network access control lists (ACLs)—Act as a firewall for associated subnets, controlling both inbound and outbound traffic at the subnet level and supports allow rules and deny rules.

Reference: [http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Security.html](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Security.html)

#### NEW QUESTION 329

In relation to AWS CloudHSM, High-availability (HA) recovery is hands-off resumption by failed HA group members.

Prior to the introduction of this function, the HA feature provided redundancy and performance, but required that a failed/lost group member be reinstated.

- A. automatically
- B. periodically
- C. manually
- D. continuously

**Answer:** C

**Explanation:** In relation to AWS CloudHSM, High-availability (HA) recovery is hands-off resumption by failed HA group members.

Prior to the introduction of this function, the HA feature provided redundancy and performance, but required that a failed/lost group member be manually reinstated.

Reference: <http://docs.aws.amazon.com/cloudhsm/latest/userguide/ha-best-practices.html>

#### NEW QUESTION 332

Having just set up your first Amazon Virtual Private Cloud (Amazon VPC) network, which defined a default network interface, you decide that you need to create and attach an additional network interface, known as an elastic network interface (ENI) to one of your instances. Which of the following statements is true regarding attaching network interfaces to your instances in your VPC?

- A. You can attach 5 ENIs per instance type.
- B. You can attach as many ENIs as you want.
- C. The number of ENIs you can attach varies by instance type.
- D. You can attach 100 ENIs total regardless of instance type.

**Answer:** C

**Explanation:** Each instance in your VPC has a default network interface that is assigned a private IP address from the IP address range of your VPC. You can create and attach an additional network interface, known as an elastic network interface (ENI), to any instance in your VPC. The number of ENIs you can attach varies by instance type.

#### NEW QUESTION 335

A for a VPC is a collection of subnets (typically private) that you may want to designate for your backend RDS DB Instances.

- A. DB Subnet Set
- B. RDS Subnet Group
- C. DB Subnet Group
- D. DB Subnet Collection

**Answer:** C

**Explanation:** DB Subnet Groups are a set of subnets (one per Availability Zone of a particular region) designed for your DB instances that reside in a VPC. They make easy to manage Multi-AZ deployments as well as the conversion from a Single-AZ to a Multi-AZ one.

Reference: <http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.RDSVPC.html>

#### NEW QUESTION 339

You have set up an S3 bucket with a number of images in it and you have decided that you want anybody to be able to access these images, even anonymous users. To accomplish this you create a bucket policy. You will need to use an Amazon S3 bucket policy that specifies a in the principal element, which means anyone can access the bucket.

- A. hash tag (#)
- B. anonymous user
- C. wildcard (\*)
- D. S3 user

**Answer:** C

**Explanation:** You can use the AWS Policy Generator to create a bucket policy for your Amazon S3 bucket. You can then use the generated document to set your bucket policy by using the Amazon S3 console, by a number of third-party tools, or via your application.

You use an Amazon S3 bucket policy that specifies a wildcard (\*) in the principal element, which means anyone can access the bucket. With anonymous access, anyone (including users without an AWS account) will be able to access the bucket.

Reference: <http://docs.aws.amazon.com/IAM/latest/UserGuide/iam-troubleshooting.html#d0e20565>

#### NEW QUESTION 344

You have been asked to build AWS infrastructure for disaster recovery for your local applications and within that you should use an AWS Storage Gateway as part of the solution. Which of the following best describes the function of an AWS Storage Gateway?

- A. Accelerates transferring large amounts of data between the AWS cloud and portable storage devices .
- B. A web service that speeds up distribution of your static and dynamic web content.
- C. Connects an on-premises software appliance with cloud-based storage to provide seamless and secure integration between your on-premises IT environment and AWS's storage infrastructure.
- D. Is a storage service optimized for infrequently used data, or "cold data."

**Answer:** C

**Explanation:** AWS Storage Gateway connects an on-premises software appliance with cloud-based storage to provide seamless integration with data security features between your on-premises IT environment and the Amazon Web Services (AWS) storage infrastructure. You can use the service to store data in the AWS cloud for scalable and cost-effective storage that helps maintain data security. AWS Storage Gateway offers both volume-based and tape-based storage solutions: Volume gateways Gateway-cached volumes Gateway-stored volumes

Gateway-virtual tape library (VTL)

Reference:

[http://media.amazonwebservices.com/architecturecenter/AWS\\_ac\\_ra\\_disasterrecovery\\_07.pdf](http://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_disasterrecovery_07.pdf)

#### NEW QUESTION 347

An organization has a statutory requirement to protect the data at rest for the S3 objects. Which of the below mentioned options need not be enabled by the organization to achieve data security?

- A. MFA delete for S3 objects
- B. Client side encryption
- C. Bucket versioning
- D. Data replication

**Answer:** D

**Explanation:** AWS S3 provides multiple options to achieve the protection of data at REST. The options include Permission (Policy), Encryption (Client and Server Side), Bucket Versioning and MFA based delete. The user can enable any of these options to achieve data protection. Data replication is an internal facility by AWS where S3 replicates each object across all the Availability Zones and the organization need not enable it in this case.

Reference: [http://media.amazonwebservices.com/AWS\\_Security\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf)

#### NEW QUESTION 351

Which of the following features are provided by Amazon EC2?

- A. Exadata Database Machine, Optimized Storage Management, Flashback Technology, and Data Warehousing
- B. Instances, Amazon Machine Images (AMIs), Key Pairs, Amazon EBS Volumes, Firewall, Elastic IP address, Tags, and Virtual Private Clouds (VPCs)
- C. Real Application Clusters (RAC), ElastiCache Machine Images (EMIs), Data Warehousing, Flashback Technology, Dynamic IP address
- D. Exadata Database Machine, Real Application Clusters (RAC), Data Guard, Table and Index Partitioning, and Data Pump Compression

**Answer:** B

**Explanation:** Amazon EC2 provides the following features:

- Virtual computing environments, known as instances;
- Pre-configured templates for your instances, known as Amazon Machine Images (AMIs), that package the bits you need for your server (including the operating system and additional software)
- Various configurations of CPU, memory, storage, and networking capacity for your instances, known as instance types
- Secure login information for your instances using key pairs (AWS stores the public key, and you store the private key in a secure place)
- Storage volumes for temporary data that's deleted when you stop or terminate your instance, known as instance store volumes
- Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS), known as Amazon EBS volumes
- Multiple physical locations for your resources, such as instances and Amazon EBS volumes, known as regions and Availability Zones
- A firewall that enables you to specify the protocols, ports, and source IP ranges that can reach your instances using security groups
- Static IP addresses for dynamic cloud computing, known as Elastic IP addresses
- Metadata, known as tags, that you can create and assign to your Amazon EC2 resources
- Virtual networks you can create that are logically isolated from the rest of the AWS cloud, and that you can optionally connect to your own network, known as virtual private clouds (VPCs).

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

#### NEW QUESTION 355

A friend tells you he is being charged \$100 a month to host his WordPress website, and you tell him you can move it to AWS for him and he will only pay a fraction of that, which makes him very happy. He then tells you he is being charged \$50 a month for the domain, which is registered with the same people that set it up, and he asks if it's possible to move that to AWS as well. You tell him you aren't sure, but will look into it. Which of the following statements is true in regards to transferring domain names to AWS?

- A. You can't transfer existing domains to AWS.
- B. You can transfer existing domains into Amazon Route 53's management.
- C. You can transfer existing domains via AWS Direct Connect.
- D. You can transfer existing domains via AWS Import/Export

**Answer:** B

**Explanation:** With Amazon Route 53, you can create and manage your public DNS records with the AWS Management Console or with an easy-to-use API. If you need a domain name, you can find an available name and register it using Amazon Route 53. You can also transfer existing domains into Amazon Route 53's management.

Reference: <http://aws.amazon.com/route53/>

#### NEW QUESTION 359

A user has created an ELB with the availability zone US-East-1A. The user wants to add more zones to ELB to achieve High Availability. How can the user add more zones to the existing ELB?

- A. The user should stop the ELB and add zones and instances as required
- B. The only option is to launch instances in different zones and add to ELB
- C. It is not possible to add more zones to the existing ELB
- D. The user can add zones on the fly from the AWS console

**Answer:** D

**Explanation:** The user has created an Elastic Load Balancer with the availability zone and wants to add more zones to the existing ELB. The user can do so in two ways:

From the console or CLI, add new zones to ELB;

Launch instances in a separate AZ and add instances to the existing ELB. Reference:

<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/enable-disable-az.html>

#### NEW QUESTION 362

A user is sending bulk emails using AWS SES. The emails are not reaching some of the targeted audience because they are not authorized by the ISPs. How can the user ensure that the emails are all delivered?

- A. Send an email using DKIM with SES.
- B. Send an email using SMTP with SES.
- C. Open a ticket with AWS support to get it authorized with the ISP.
- D. Authorize the ISP by sending emails from the development account

**Answer:** A

**Explanation:** Domain Keys Identified Mail (DKIM) is a standard that allows senders to sign their email messages and ISPs, and use those signatures to verify that those messages are legitimate and have not been modified by a third party in transit.

Reference: <http://docs.aws.amazon.com/ses/latest/DeveloperGuide/dkim.html>

#### NEW QUESTION 367

A user has launched a large EBS backed EC2 instance in the US-East-1a region. The user wants to achieve Disaster Recovery (DR) for that instance by creating another small instance in Europe. How can the user achieve DR?

- A. Copy the instance from the US East region to the EU region
- B. Use the "Launch more like this" option to copy the instance from one region to another
- C. Copy the running instance using the "Instance Copy" command to the EU region
- D. Create an AMI of the instance and copy the AMI to the EU region
- E. Then launch the instance from the EU AMI

**Answer:** D

**Explanation:** To launch an EC2 instance it is required to have an AMI in that region. If the AMI is not available in that region, then create a new AMI or use the copy command to copy the AMI from one region to the other region.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/CopyingAMIs.html>

#### NEW QUESTION 371

AWS Identity and Access Management is a web service that enables Amazon Web Services (AWS) customers to manage users and user permissions in AWS. In addition to supporting IAM user policies, some services support resource-based permissions. Which of the following services are supported by resource-based permissions?

- A. Amazon SNS, and Amazon SQS and AWS Direct Connect.
- B. Amazon S3 and Amazon SQS and Amazon ElastiCache.
- C. Amazon S3, Amazon SNS, Amazon SQS, Amazon Glacier and Amazon EBS.
- D. Amazon Glacier, Amazon SNS, and Amazon CloudWatch



**Answer:** C

**Explanation:** In addition to supporting IAM user policies, some services support resource-based permissions, which let you attach policies to the service's resources instead of to IAM users or groups. Resource-based permissions are supported by Amazon S3, Amazon SNS, Amazon SQS, Amazon Glacier and Amazon EBS.

Reference: [http://docs.aws.amazon.com/IAM/latest/UserGuide/Using\\_SpecificProducts.htm](http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_SpecificProducts.htm)

#### NEW QUESTION 373

Content and IV|edia Server is the latest requirement that you need to meet for a client.

The client has been very specific about his requirements such as low latency, high availability, durability, and access control. Potentially there will be millions of views on this server and because of "spiky" usage patterns, operations teams will need to provision static hardware, network, and management resources to support the maximum expected need. The Customer base will be initially low but is expected to grow and become more geographically distributed.

Which of the following would be a good solution for content distribution?

- A. Amazon S3 as both the origin server and for caching
- B. AWS Storage Gateway as the origin server and Amazon EC2 for caching
- C. AWS CloudFront as both the origin server and for caching
- D. Amazon S3 as the origin server and Amazon CloudFront for caching

**Answer:** D

**Explanation:** As your customer base grows and becomes more geographically distributed, using a high- performance edge cache like Amazon CloudFront can provide substantial improvements in latency, fault tolerance, and cost.

By using Amazon S3 as the origin server for the Amazon CloudFront distribution, you gain the advantages of fast in-network data transfer rates, simple publishing/caching workflow, and a unified security framework.

Amazon S3 and Amazon CloudFront can be configured by a web service, the AWS Management Console, or a host of third-party management tools.

Reference:[http://media.amazonwebservices.com/architecturecenter/AWS\\_ac\\_ra\\_media\\_02.pdf](http://media.amazonwebservices.com/architecturecenter/AWS_ac_ra_media_02.pdf)

#### NEW QUESTION 375

You are setting up your first Amazon Virtual Private Cloud (Amazon VPC) network so you decide you should probably use the AWS Management Console and the VPC Wizard. Which of the following is not an option for network architectures after launching the "Start VPC Wizard" in Amazon VPC page on the AWS Management Console?

- A. VPC with a Single Public Subnet Only
- B. VPC with a Public Subnet Only and Hardware VPN Access
- C. VPC with Public and Private Subnets and Hardware VPN Access
- D. VPC with a Private Subnet Only and Hardware VPN Access

**Answer:** B

**Explanation:** Amazon VPC enables you to build a virtual network in the AWS cloud - no VPNs, hardware, or physical datacenters required.

Your AWS resources are automatically provisioned in a ready-to-use default VPC. You can choose to create additional VPCs by going to Amazon VPC page on the AWS Management Console and click on the "Start VPC Wizard" button.

You'll be presented with four basic options for network architectures. After selecting an option, you can modify the size and IP address range of the VPC and its subnets. If you select an option with Hardware VPN Access, you will need to specify the IP address of the VPN hardware on your network. You can modify the VPC to add more subnets or add or remove gateways at any time after the VPC has been created.

The four options are:

VPC with a Single Public Subnet Only VPC with Public and Private Subnets

VPC with Public and Private Subnets and Hardware VPN Access VPC with a Private Subnet Only and Hardware VPN Access Reference:

<https://aws.amazon.com/vpc/faqs/>

#### NEW QUESTION 376

An EC2 instance is connected to an ENI (Elastic Network Interface) in one subnet. What happens when you attach an ENI of a different subnet to this EC2 instance?

- A. The EC2 instance follows the rules of the older subnet
- B. The EC2 instance follows the rules of both the subnets
- C. Not possible, cannot be connected to 2 ENIs
- D. The EC2 instance follows the rules of the newer subnet

**Answer:** B

**Explanation:** AWS allows you create an elastic network interface (ENI), attach an ENI to an EC2 instance, detach an ENI from an EC2 instance and attach this ENI to another EC2 instance. The attributes of a network traffic follow the ENI which is attached to an EC2 instance or detached from an EC2 instance. When you move an ENI from one EC2 instance to another, network traffic is redirected to the new EC2 instance. You can create and attach additional ENIs to an EC2 instance.

Attaching multiple network interfaces (ENIs) to an EC2 instance is useful to: Create a management network.

Use network and security appliances in your VPC.

Create dual-homed instances with workloads/roles on distinct subnets Create a low-budget, high-availability solution.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.htm>

#### NEW QUESTION 378

Which one of the below doesn't affect Amazon CloudFront billing?

- A. Distribution Type

- B. Data Transfer Out
- C. Dedicated IP SSL Certificates
- D. Requests

**Answer:** A

**Explanation:** Amazon CloudFront is a web service for content delivery. CloudFront delivers your content using a global network of edge locations and works seamlessly with Amazon S3 which durably stores the original and definitive versions of your files.

Amazon CloudFront billing is mainly affected by Data Transfer Out

Edge Location Traffic Distribution Requests

Dedicated IP SSL Certificates

Reference: <http://calculator.s3.amazonaws.com/index.html>

#### NEW QUESTION 380

Your company has multiple IT departments, each with their own VPC. Some VPCs are located within the same AWS account, and others in a different AWS account. You want to peer together all VPCs to enable the IT departments to have full access to each others' resources. There are certain limitations placed on VPC peering. Which of the following statements is incorrect in relation to VPC peering?

- A. Private DNS values cannot be resolved between instances in peered VPCs.
- B. You can have up to 3 VPC peering connections between the same two VPCs at the same time.
- C. You cannot create a VPC peering connection between VPCs in different regions.
- D. You have a limit on the number active and pending VPC peering connections that you can have per VPC.

**Answer:** B

**Explanation:** To create a VPC peering connection with another VPC, you need to be aware of the following limitations and rules:

You cannot create a VPC peering connection between VPCs that have matching or overlapping CIDR blocks.

You cannot create a VPC peering connection between VPCs in different regions.

You have a limit on the number active and pending VPC peering connections that you can have per VPC. VPC peering does not support transitive peering relationships; in a VPC peering connection, your VPC will not have access to any other VPCs that the peer VPC may be peered with. This includes VPC peering connections that are established entirely within your own AWS account.

You cannot have more than one VPC peering connection between the same two VPCs at the same time. The Maximum Transmission Unit (MTU) across a VPC peering connection is 1500 bytes.

A placement group can span peered VPCs; however, you will not get full-bisection bandwidth between instances in peered VPCs.

Unicast reverse path forwarding in VPC peering connections is not supported.

You cannot reference a security group from the peer VPC as a source or destination for ingress or egress rules in your security group. Instead, reference CIDR blocks of the peer VPC as the source or destination of your security group's ingress or egress rules.

Private DNS values cannot be resolved between instances in peered VPCs. Reference:

<http://docs.aws.amazon.com/AmazonVPC/latest/PeeringGuide/vpc-peering-overview.html#vpc-peering-limitations>

#### NEW QUESTION 382

You are architecting a highly-scalable and reliable web application which will have a huge amount of content. You have decided to use CloudFront as you know it will speed up distribution of your static and dynamic web content and know that Amazon CloudFront integrates with Amazon CloudWatch metrics so that you can monitor your web application. Because you live in Sydney you have chosen the Asia Pacific (Sydney) region in the AWS console. However you have set up this up but no CloudFront metrics seem to be appearing in the CloudWatch console. What is the most likely reason from the possible choices below for this?

- A. Metrics for CloudWatch are available only when you choose the same region as the application you are monitoring.
- B. You need to pay for CloudWatch for it to become active.
- C. Metrics for CloudWatch are available only when you choose the US East (N. Virginia)
- D. Metrics for CloudWatch are not available for the Asia Pacific region as yet

**Answer:** C

**Explanation:** CloudFront is a global service, and metrics are available only when you choose the US East (N. Virginia) region in the AWS console. If you choose another region, no CloudFront metrics will appear in the CloudWatch console.

Reference:

<http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/monitoring-using-cloudwatch.html>

#### NEW QUESTION 387

After a major security breach your manager has requested a report of all users and their credentials in AWS. You discover that in IAM you can generate and download a credential report that lists all users in your account and the status of their various credentials, including passwords, access keys, MFA devices, and signing certificates. Which following statement is incorrect in regards to the use of credential reports?

- A. Credential reports are downloaded XML files.
- B. You can get a credential report using the AWS Management Console, the AWS CLI, or the IAM API.
- C. You can use the report to audit the effects of credential lifecycle requirements, such as password rotation.
- D. You can generate a credential report as often as once every four hours

**Answer:** A

**Explanation:** To access your AWS account resources, users must have credentials.

You can generate and download a credential report that lists all users in your account and the status of their various credentials, including passwords, access keys, MFA devices, and signing certificates. You can get a credential report using the AWS Management Console, the AWS CLI, or the IAM API.

You can use credential reports to assist in your auditing and compliance efforts. You can use the report to audit the effects of credential lifecycle requirements, such as password rotation. You can provide the report to an external auditor, or grant permissions to an auditor so that he or she can download the report directly.

You can generate a credential report as often as once every four hours. When you request a report, IAM first checks whether a report for the account has been

generated within the past four hours. If so, the most recent report is downloaded. If the most recent report for the account is more than four hours old, or if there are no previous reports for the account, IAM generates and downloads a new report.

Credential reports are downloaded as comma-separated values (CSV) files.

You can open CSV files with common spreadsheet software to perform analysis, or you can build an application that consumes the CSV files programmatically and performs custom analysis. Reference: <http://docs.aws.amazon.com/IAM/latest/UserGuide/credential-reports.html>

#### NEW QUESTION 389

A user has configured a website and launched it using the Apache web server on port 80. The user is using ELB with the EC2 instances for Load Balancing. What should the user do to ensure that the EC2 instances accept requests only from ELB?

- A. Configure the security group of EC2, which allows access to the ELB source security group
- B. Configure the EC2 instance so that it only listens on the ELB port
- C. Open the port for an ELB static IP in the EC2 security group
- D. Configure the security group of EC2, which allows access only to the ELB listener

**Answer:** A

**Explanation:** When a user is configuring ELB and registering the EC2 instances with it, ELB will create a source security group. If the user wants to allow traffic only from ELB, he should remove all the rules set for the other requests and open the port only for the ELB source security group.

Reference:

<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/using-elb-security-groups.html>

#### NEW QUESTION 392

A user is planning a highly available application deployment with EC2. Which of the below mentioned options will not help to achieve HA?

- A. Elastic IP address
- B. PIOPS
- C. AMI
- D. Availability Zones

**Answer:** B

**Explanation:** In Amazon Web Service, the user can achieve HA by deploying instances in multiple zones. The elastic IP helps the user achieve HA when one of the instances is down but still keeps the same URL. The AM helps launching the new instance. The PIOPS is for the performance of EBS and does not help for HA. Reference: [http://media.amazonwebservices.com/AWS\\_Web\\_Hosting\\_Best\\_Practices.pdf](http://media.amazonwebservices.com/AWS_Web_Hosting_Best_Practices.pdf)

#### NEW QUESTION 397

You have been given a scope to set up an AWS Media Sharing Framework for a new start up photo sharing company similar to flickr. The first thing that comes to mind about this is that it will obviously need a huge amount of persistent data storage for this framework. Which of the following storage options would be appropriate for persistent storage?

- A. Amazon Glacier or Amazon S3
- B. Amazon Glacier or AWS Import/Export
- C. AWS Import/Export or Amazon CloudFront
- D. Amazon EBS volumes or Amazon S3

**Answer:** D

**Explanation:** Persistent storage-If you need persistent virtual disk storage similar to a physical disk drive for files or other data that must persist longer than the lifetime of a single Amazon EC2 instance, Amazon EBS volumes or Amazon S3 are more appropriate.

Reference: [http://media.amazonwebservices.com/AWS\\_Storage\\_Options.pdf](http://media.amazonwebservices.com/AWS_Storage_Options.pdf)

#### NEW QUESTION 402

After deploying a new website for a client on AWS, he asks if you can set it up so that if it fails it can be automatically redirected to a backup website that he has stored on a dedicated server elsewhere. You are wondering whether Amazon Route 53 can do this. Which statement below is correct in regards to Amazon Route 53?

- A. Amazon Route 53 can't help detect an outage
- B. You need to use another service.
- C. Amazon Route 53 can help detect an outage of your website and redirect your end users to alternate locations.
- D. Amazon Route 53 can help detect an outage of your website but can't redirect your end users to alternate locations.
- E. Amazon Route 53 can't help detect an outage of your website, but can redirect your end users to alternate locations.

**Answer:** B

**Explanation:** With DNS Failover, Amazon Route 53 can help detect an outage of your website and redirect your end users to alternate locations where your application is operating properly.

Reference:

<http://aws.amazon.com/about-aws/whats-new/2013/02/11/announcing-dns-failover-for-route-53/>

#### NEW QUESTION 403

In Route 53, what does a Hosted Zone refer to?

- A. A hosted zone is a collection of geographical load balancing rules for Route 53.
- B. A hosted zone is a collection of resource record sets hosted by Route 53.
- C. A hosted zone is a selection of specific resource record sets hosted by CloudFront for distribution to Route 53.
- D. A hosted zone is the Edge Location that hosts the Route 53 records for a use

**Answer:** B

**Explanation:** A Hosted Zone refers to a selection of resource record sets hosted by Route 53.

Reference: <http://docs.aws.amazon.com/Route53/latest/DeveloperGuide/AboutHostedZones.html>

#### NEW QUESTION 405

Which of the following statements is true of Amazon EC2 security groups?

- A. You can change the outbound rules for EC2-Classi
- B. Also, you can add and remove rules to a group at any time.
- C. You can modify an existing rule in a grou
- D. However, you can't add and remove rules to a group.
- E. None of the statements are correct.
- F. You can't change the outbound rules for EC2-Classi
- G. However, you can add and remove rules to a group at any tim

**Answer:** D

**Explanation:** When dealing with security groups, bear in mind that you can freely add and remove rules from a group, but you can't change the outbound rules for EC2-Classic. If you're using the Amazon EC2 console, you can modify existing rules, and you can copy the rules from an existing security group to a new security group.

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/using-network-security.html>

#### NEW QUESTION 406

You need to create a management network using network interfaces for a virtual private cloud (VPC) network. Which of the following statements is incorrect pertaining to Best Practices for Configuring Network Interfaces.

- A. You can detach secondary (ethN) network interfaces when the instance is running or stoppe
- B. However, you can't detach the primary (eth0) interface.
- C. Launching an instance with multiple network interfaces automatically configures interfaces, private IP addresses, and route tables on the operating system of the instance.
- D. You can attach a network interface in one subnet to an instance in another subnet in the same VPC, however, both the network interface and the instance must reside in the same Availability Zone.
- E. Attaching another network interface to an instance is a valid method to increase or double the network bandwidth to or from the dual-homed instance

**Answer:** D

**Explanation:** Best Practices for Configuring Network Interfaces

You can attach a network interface to an instance when it's running (hot attach), when it's stopped (warm attach), or when the instance is being launched (cold attach).

You can detach secondary (ethN) network interfaces when the instance is running or stopped. However, you can't detach the primary (eth0) interface.

You can attach a network interface in one subnet to an instance in another subnet in the same VPC, however, both the network interface and the instance must reside in the same Availability Zone.

When launching an instance from the CLI or API, you can specify the network interfaces to attach to the instance for both the primary (eth0) and additional network interfaces.

Launching an instance with multiple network interfaces automatically configures interfaces, private IP addresses, and route tables on the operating system of the instance.

A warm or hot attach of an additional network interface may require you to manually bring up the second interface, configure the private IP address, and modify the route table accordingly. (Instances running Amazon Linux automatically recognize the warm or hot attach and configure themselves.)

Attaching another network interface to an instance is not a method to increase or double the network bandwidth to or from the dual-homed instance.

Reference:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-eni.html#use-network-and-security-applia nces-in-your-vpc>

#### NEW QUESTION 410

All Amazon EC2 instances are assigned two IP addresses at launch. Which are those?

- A. 2 Elastic IP addresses
- B. A private IP address and an Elastic IP address
- C. A public IP address and an Elastic IP address
- D. A private IP address and a public IP address

**Answer:** D

**Explanation:** In Amazon EC2-Classic every instance is given two IP Addresses: a private IP address and a public IP address

Reference:

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-instance-addressing.html#differences>

#### NEW QUESTION 412

Your manager has asked you to set up a public subnet with instances that can send and receive internet traffic, and a private subnet that can't receive traffic directly from the internet, but can initiate traffic to the internet (and receive responses) through a NAT instance in the public subnet. Hence, the following 3 rules



need to be allowed:  
Inbound SSH traffic.

Web servers in the public subnet to read and write to MS SQL servers in the private subnet Inbound RDP traffic from the Microsoft Terminal Services gateway in the public private subnet What are the respective ports that need to be opened for this?

- A. Ports 22,1433,3389
- B. Ports 21,1433,3389
- C. Ports 25,1433,3389
- D. Ports 22,1343,3999

**Answer:** A

**Explanation:** A network access control list (ACL) is an optional layer of security that acts as a firewall for controlling traffic in and out of a subnet. You might set up network ACLs with rules similar to your security groups in order to add an additional layer of security to your VPC.

The following ports are recommended by AWS for a single subnet with instances that can receive and send Internet traffic and a private subnet that can't receive traffic directly from the Internet. However, it can initiate traffic to the Internet (and receive responses) through a NAT instance in the public subnet. Inbound SSH traffic. Port 22

Web servers in the public subnet to read and write to MS SQL servers in the private subnet. Port 1433 Inbound RDP traffic from the Microsoft Terminal Services gateway in the public private subnet. Port 3389 Reference:

[http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\\_Appendix\\_NACLs.html#VPC\\_Appendix\\_NACLs\\_Scenario\\_2](http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC_Appendix_NACLs.html#VPC_Appendix_NACLs_Scenario_2)

#### NEW QUESTION 413

You want to establish a dedicated network connection from your premises to AWS in order to save money by transferring data directly to AWS rather than through your internet service provider. You are sure there must be some other benefits beyond cost savings. Which of the following would not be considered a benefit if you were to establish such a connection?

- A. Elasticity
- B. Compatibility with all AWS services.
- C. Private connectivity to your Amazon VPC.
- D. Everything listed is a benefit

**Answer:** D

**Explanation:** AWS Direct Connect makes it easy to establish a dedicated network connection from your premises to AWS.

Using AWS Direct Connect, you can establish private connectivity between AWS and your datacenter, office, or colocation environment, which in many cases can reduce your network costs, increase bandwidth throughput, and provide a more consistent network experience than internet-based connections.

You could expect the following benefits if you use AWS Direct Connect. Reduced bandwidth costs

Consistent network performance Compatibility with all AWS services Private connectivity to your Amazon VPC Elasticity

Simplicity

Reference: <http://aws.amazon.com/directconnect/>

#### NEW QUESTION 415

George has launched three EC2 instances inside the US-East-1a zone with his AWS account. Ray has launched two EC2 instances in the US-East-1a zone with his AWS account. Which of the below mentioned statements will help George and Ray understand the availability zone (AZ) concept better?

- A. All the instances of George and Ray can communicate over a private IP with a minimal cost
- B. The US-East-1a region of George and Ray can be different availability zones
- C. All the instances of George and Ray can communicate over a private IP without any cost
- D. The instances of George and Ray will be running in the same data centre

**Answer:** B

**Explanation:** Each AWS region has multiple, isolated locations known as Availability Zones. To ensure that the AWS resources are distributed across the Availability Zones for a region, AWS independently maps the Availability Zones to identifiers for each account. In this case the Availability Zone US-East-1a where George's EC2 instances are running might not be the same location as the US-East-1a zone of Ray's EC2 instances. There is no way for the user to coordinate the Availability Zones between accounts.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

#### NEW QUESTION 420

You are in the process of moving your friend's WordPress site onto AWS to try and save him some money, and you have told him that he should probably also move his domain name. He asks why he can't leave his domain name where it is and just have his infrastructure on AWS. What would be an incorrect response to his question ?

- A. Route 53 offers low query latency for your end users.
- B. Route 53 is designed to automatically answer queries from the optimal location depending on network conditions.
- C. The globally distributed nature of AWS's DNS servers helps ensure a consistent ability to route your end users to your application.
- D. Route 53 supports Domain Name System Security Extensions (DNSSEC).

**Answer:** D

**Explanation:** Amazon Route 53 provides highly available and scalable Domain Name System (DNS), domain name registration, and health-checking web services.

Route 53 is built using AWS's highly available and reliable infrastructure. The globally distributed nature of our DNS servers helps ensure a consistent ability to route your end users to your application by circumventing any internet or network related issues. Route 53 is designed to provide the level of dependability required by important applications. Using a global anycast network of DNS servers around the world, Route 53 is designed to automatically answer queries from the optimal location depending on network conditions. As a result, the service offers low query latency for your end users.

Amazon Route 53 does not support Domain Name System Security Extensions (DNSSEC) at this time. Reference: <https://aws.amazon.com/route53/faqs/>

#### NEW QUESTION 424

Just when you thought you knew every possible storage option on AWS you hear someone mention Reduced Redundancy Storage (RRS) within Amazon S3. What is the ideal scenario to use Reduced Redundancy Storage (RRS)?

- A. Huge volumes of data
- B. Sensitive data
- C. Non-critical or reproducible data
- D. Critical data

**Answer:** C

**Explanation:** Reduced Redundancy Storage (RRS) is a new storage option within Amazon S3 that enables customers to reduce their costs by storing non-critical, reproducible data at lower levels of redundancy than Amazon S3's standard storage. RRS provides a lower cost, less durable, highly available storage option that is designed to sustain the loss of data in a single facility.

RRS is ideal for non-critical or reproducible data.

For example, RRS is a cost-effective solution for sharing media content that is durably stored elsewhere. RRS also makes sense if you are storing thumbnails and other resized images that can be easily reproduced from an original image.

Reference: <https://aws.amazon.com/s3/faqs/>

#### NEW QUESTION 428

A user is making a scalable web application with compartmentalization. The user wants the log module to be able to be accessed by all the application functionalities in an asynchronous way. Each module of the application sends data to the log module, and based on the resource availability it will process the logs. Which AWS service helps this functionality?

- A. AWS Simple Queue Service.
- B. AWS Simple Notification Service.
- C. AWS Simple Workflow Service.
- D. AWS Simple Email Service

**Answer:** A

**Explanation:** Amazon Simple Queue Service (SQS) is a highly reliable distributed messaging system for storing messages as they travel between computers. By using Amazon SQS, developers can simply move data between distributed application components. It is used to achieve compartmentalization or loose coupling. In this case all the modules will send a message to the logger queue and the data will be processed by queue as per the resource availability.

Reference: [http://media.amazonwebservices.com/AWS\\_Building\\_Fault\\_Tolerant\\_Applications.pdf](http://media.amazonwebservices.com/AWS_Building_Fault_Tolerant_Applications.pdf)

#### NEW QUESTION 430

You have some very sensitive data stored on AWS S3 and want to try every possible alternative to keeping it secure in regards to access control. What are the mechanisms available for access control on AWS S3?

- A. (IAM) policies, Access Control Lists (ACLs), bucket policies, and query string authentication.
- B. (IAM) policies, Access Control Lists (ACLs) and bucket policies.
- C. Access Control Lists (ACLs), bucket policies, and query string authentication
- D. (IAM) policies, Access Control Lists (ACLs), bucket policies, query string authentication and encryption.

**Answer:** A

**Explanation:** Amazon S3 supports several mechanisms that give you flexibility to control who can access your data as well as how, when, and where they can access it.

Amazon S3 provides four different access control mechanisms:

AWS Identity and Access Management (IAM) policies, Access Control Lists (ACLs), bucket policies, and query string authentication.

IAM enables organizations to create and manage multiple users under a single AWS account. With IAM policies, you can grant IAM users fine-grained control to your Amazon S3 bucket or objects. You can use ACLs to selectively add (grant) certain permissions on individual objects.

Amazon S3 bucket policies can be used to add or deny permissions across some or all of the objects within a single bucket.

With Query string authentication, you have the ability to share Amazon S3 objects through URLs that are valid for a specified period of time.

#### NEW QUESTION 433

Your manager has come to you saying that he is very confused about the bills he is receiving from AWS as he is getting different bills for every user and needs you to look into making it more understandable. Which of the following would be the best solution to meet his request?

- A. AWS Billing Aggregation
- B. Consolidated Billing
- C. Deferred Billing
- D. Aggregated Billing

**Answer:** B

**Explanation:** Consolidated Billing enables you to consolidate payment for multiple AWS accounts within your company by designating a single paying account. Consolidated Billing enables you to see a combined view of AWS costs incurred by all accounts, as well as obtain a detailed cost report for each of the individual AWS accounts associated with your "Paying Account". Consolidated Billing is offered at no additional charge. Reference: <https://aws.amazon.com/billing/faqs/>

#### NEW QUESTION 435

A user is planning to host a mobile game on EC2 which sends notifications to active users on either high score or the addition of new features. The user should get this notification when he is online on his mobile device. Which of the below mentioned AWS services can help achieve this functionality?

- A. AWS Simple Notification Service.
- B. AWS Simple Email Service.
- C. AWS Nmobile Communication Service.
- D. AWS Simple Queue Service.

**Answer:** A

**Explanation:** Amazon Simple Notification Service (Amazon SNS) is a fast, flexible, and fully managed push messaging service. Amazon SNS makes it simple and cost-effective to push to mobile devices, such as iPhone, iPad, Android, Kindle Fire, and internet connected smart devices, as well as pushing to other distributed services.

Reference: <http://aws.amazon.com/sns>

#### NEW QUESTION 436

You have been asked to set up a database in AWS that will require frequent and granular updates. You know that you will require a reasonable amount of storage space but are not sure of the best option. What is the recommended storage option when you run a database on an instance with the above criteria?

- A. Amazon S3
- B. Amazon EBS
- C. AWS Storage Gateway
- D. Amazon Glacier

**Answer:** B

**Explanation:** Amazon EBS provides durable, block-level storage volumes that you can attach to a running Amazon EC2 instance. You can use Amazon EBS as a primary storage device for data that requires frequent and granular updates. For example, Amazon EBS is the recommended storage option when you run a database on an instance.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Storage.html>

#### NEW QUESTION 438

A user has hosted an application on EC2 instances. The EC2 instances are configured with ELB and Auto Scaling. The application server session time out is 2 hours. The user wants to configure connection draining to ensure that all in-flight requests are supported by ELB even though the instance is being deregistered. What time out period should the user specify for connection draining?

- A. 1 hour
- B. 30 minutes
- C. 5 minutes
- D. 2 hours

**Answer:** A

**Explanation:** The Elastic Load Balancer connection draining feature causes the load balancer to stop sending new requests to the back-end instances when the instances are deregistering or become unhealthy, while ensuring that in-flight requests continue to be served. The user can specify a maximum time of 3600 seconds (1 hour) for the load balancer to keep the connections alive before reporting the instance as deregistered. If the user does not specify the maximum timeout period, by default, the load balancer will close the connections to the deregistering instance after 300 seconds.

Reference:

<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/config-conn-drain.html>

#### NEW QUESTION 442

Identify a true statement about the On-Demand instances purchasing option provided by Amazon EC2.

- A. Pay for the instances that you use by the hour, with no long-term commitments or up-front payments.
- B. Make a low, one-time, up-front payment for an instance, reserve it for a one- or three-year term, and pay a significantly lower hourly rate for these instances.
- C. Pay for the instances that you use by the hour, with long-term commitments or up-front payments.
- D. Make a high, one-time, all-front payment for an instance, reserve it for a one- or three-year term, and pay a significantly higher hourly rate for these instance

**Answer:** A

**Explanation:** On-Demand instances allow you to pay for the instances that you use by the hour, with no long-term commitments or up-front payments.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/reserved-instances-offerings.html>

#### NEW QUESTION 443

You have a Business support plan with AWS. One of your EC2 instances is running Microsoft Windows Server 2008 R2 and you are having problems with the software. Can you receive support from AWS for this software?

- A. Yes
- B. No, AWS does not support any third-party software.
- C. No, Microsoft Windows Server 2008 R2 is not supported.
- D. No, you need to be on the enterprise support plan

**Answer:** A

**Explanation:** Third-party software support is available only to AWS Support customers enrolled for Business or Enterprise Support. Third-party support applies only to software running on Amazon EC2 and does not extend to assisting with on-premises software. An exception to this is a VPN tunnel configuration running supported devices for Amazon VPC.  
Reference: <https://aws.amazon.com/premiumsupport/features/>

#### NEW QUESTION 445

A user has launched one EC2 instance in the US West region. The user wants to access the RDS instance launched in the US East region from that EC2 instance. How can the user configure the access for that EC2 instance?

- A. Configure the IP range of the US West region instance as the ingress security rule of RDS
- B. It is not possible to access RDS of the US East region from the US West region
- C. Open the security group of the US West region in the RDS security group's ingress rule
- D. Create an IAM role which has access to RDS and launch an instance in the US West region with it

**Answer:** A

**Explanation:** The user cannot authorize an Amazon EC2 security group if it is in a different AWS Region than the RDS DB instance. The user can authorize an IP range or specify an Amazon EC2 security group in the same region that refers to an IP address in another region.  
Reference: [http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER\\_WorkingWithSecurityGroups.html](http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_WorkingWithSecurityGroups.html)

#### NEW QUESTION 448

You need to create a load balancer in a VPC network that you are building. You can make your load balancer internal (private) or internet-facing (public). When you make your load balancer internal, a DNS name will be created, and it will contain the private IP address of the load balancer. An internal load balancer is not exposed to the internet. When you make your load balancer internet-facing, a DNS name will be created with the public IP address. If you want the Internet-facing load balancer to be connected to the Internet, where must this load balancer reside?

- A. The load balancer must reside in a subnet that is connected to the internet using the internet gateway.
- B. The load balancer must reside in a subnet that is not connected to the internet.
- C. The load balancer must not reside in a subnet that is connected to the internet.
- D. The load balancer must be completely outside of your VP

**Answer:** A

**Explanation:** When you create an internal Elastic Load Balancer in a VPC, you need to select private subnets that are in the same Availability Zone as your instances. If the VPC Elastic Load Balancer is to be public facing, you need to create the Elastic Load Balancer in a public subnet. A subnet is a public subnet if it is attached to an Internet Gateway (IGW) with a defined route to that gateway. Selecting more than one public subnet increases the availability of your Elastic Load Balancer.

NB - Elastic Load Balancers in EC2-Classic are always Internet-facing load balancers. Reference:  
<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/elb-internet-facing-load-balancers.html>

#### NEW QUESTION 453

Can you move a Reserved Instance from one Availability Zone to another?

- A. Yes, but each Reserved Instance is associated with a specific Region that cannot be changed.
- B. Yes, only in US-West-2.
- C. Yes, only in US-East-1.
- D. No

**Answer:** A

**Explanation:** Each Reserved Instance is associated with a specific Region, which is fixed for the lifetime of the reservation and cannot be changed. Each reservation can, however, be used in any of the available AZs within the associated Region.  
Reference: <https://aws.amazon.com/rds/faqs/>

#### NEW QUESTION 458

An application hosted at the EC2 instance receives an HTTP request from ELB. The same request has an X-Forwarded-For header, which has three IP addresses. Which system's IP will be a part of this header?

- A. Previous Request IP address.
- B. Client IP address.
- C. All of the answers listed here.
- D. Load Balancer IP address

**Answer:** C

**Explanation:** When a user sends a request to ELB over HTTP/HTTPS, the request header log at the instance will only receive the IP of ELB. This is because ELB is the interceptor between the EC2 instance and the client request. To get the client IP, use the header X-Forwarded-For in header. The client IP address in the X-Forwarded-For request header is followed by the IP addresses of each successive proxy that passes along the request. The last IP address is the IP address that connects to the back-end application instance. e.g. if the HTTP request already has a header when it reaches the Load Balancer, the IP address from which the request came is appended at the end of the header followed by the IP address of the Load Balancer. In such cases, the X-Forwarded-For request header takes the following form:

X-Forwarded-For: clientIPAddress, previousRequestIPAddress, LoadBalancerIPAddress. Reference:  
<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/TerminologyandKeyConcepts.html>



#### NEW QUESTION 462

You need to set up a security certificate for a client's e-commerce website as it will use the HTTPS protocol. Which of the below AWS services do you need to access to manage your SSL server certificate?

- A. AWS Directory Service
- B. AWS Identity & Access Management
- C. AWS CloudFormation
- D. Amazon Route 53

**Answer:** B

**Explanation:** AWS Identity and Access Management (IAM) is a web service that enables Amazon Web Services (AWS) customers to manage users and user permissions in AWS.

All your SSL server certificates are managed by AWS Identity and Access management (IAM). Reference:  
<http://docs.aws.amazon.com/IAM/latest/UserGuide/ManagingServerCerts.html>

#### NEW QUESTION 464

When controlling access to Amazon EC2 resources, each Amazon EBS Snapshot has a attribute that controls which AWS accounts can use the snapshot.

- A. createVolumePermission
- B. LaunchPermission
- C. SharePermission
- D. RequestPermission

**Answer:** A

**Explanation:** Each Amazon EBS Snapshot has a createVolumePermission attribute that you can set to one or more AWS Account IDs to share the AM with those AWS Accounts. To allow several AWS Accounts to use a particular EBS snapshot, you can use the snapshots's createVolumePermission attribute to include a list of the accounts that can use it.

Reference: <http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/UsingIAM.html>

#### NEW QUESTION 465

Your customer wishes to deploy an enterprise application to AWS which will consist of several web servers, several application servers and a small (50GB) Oracle database information is stored, both in the database and the file systems of the various servers. The backup system must support database recovery whole server and whole disk restores, and indMdual file restores with a recovery time of no more than two hours. They have chosen to use RDS Oracle as the database Which backup architecture will meet these requirements?

- A. Backup RDS using automated daily DB backups Backup the EC2 instances using AMs andsupplement with file-level backup to 53 using traditional enterprise backup software to provide fi le level restore
- B. Backup RDS using a Multi-AZ Deployment Backup the EC2 instances using Amis, and supplement by copying file system data to 53 to provide file level restore.
- C. Backup RDS using automated daily DB backups Backup the EC2 instances using EBS snapshots and supplement with file-level backups to Amazon Glacier using traditional enterprise backup software to provide file level restore
- D. Backup RDS database to 53 using Oracle RMAN Backup the EC2 instances using Amis, and supplement with EBS snapshots for indMdual volume restore.

**Answer:** A

**Explanation:** Point-In-Time Recovery

In addition to the daily automated backup, Amazon RDS archives database change logs. This enables you to recover your database to any point in time during the backup retention period, up to the last five minutes of database usage.

Amazon RDS stores multiple copies of your data, but for Single-AZ DB instances these copies are stored in a single availability zone. If for any reason a Single-AZ DB instance becomes unusable, you can use point-in-time recovery to launch a new DB instance with the latest restorable data. For more information on working with point-in-time recovery, go to Restoring a DB Instance to a Specified Time.

Note

Multi-AZ deployments store copies of your data in different Availability Zones for greater levels of data durability. For more information on Multi-AZ deployments, see High Availability (Multi-AZ).

#### NEW QUESTION 466

A customer has a 10 GB AWS Direct Connect connection to an AWS region where they have a web application hosted on Amazon Elastic Computer Cloud (EC2). The application has dependencies on an on-premises mainframe database that uses a BASE (Basic Available. Sort stale Eventual consistency) rather than an ACID (Atomicity. Consistency isolation. Durability) consistency model.

The application is exhibiting undesirable behavior because the database is not able to handle the volume of writes. How can you reduce the load on your on-premises database resources in the most cost-effective way?

- A. Use an Amazon Elastic Map Reduce (EMR) S3DistCp as a synchronization mechanism between the on-premises database and a Hadoop cluster on AWS.
- B. Modify the application to write to an Amazon SQS queue and develop a worker process to flush the queue to the on-premises database.
- C. Modify the application to use DynamoDB to feed an EMR cluster which uses a map function to write to the on-premises database.
- D. Provision an RDS read-replica database on AWS to handle the writes and synchronize the two databases using Data Pipeline.

**Answer:** A

**Explanation:** Reference: <https://aws.amazon.com/blogs/aws/category/amazon-elastic-map-reduce/>

#### NEW QUESTION 470

Company B is launching a new game app for mobile devices. Users will log into the game using their existing social media account to streamline data capture.

Company B would like to directly save player data and scoring information from the mobile app to a DynamoDB table named Score Data. When a user saves their game the progress data will be stored to the Game state 53 bucket. What is the best approach for storing data to DynamoDB and S3?

- A. Use an EC2 Instance that is launched with an EC2 role providing access to the Score Data DynamoDB table and the GameState S3 bucket that communicates with the mobile app via web services.
- B. Use temporary security credentials that assume a role providing access to the Score Data DynamoDB table and the Game State S3 bucket using web identity federation.
- C. Use Login with Amazon allowing users to sign in with an Amazon account providing the mobile app with access to the Score Data DynamoDB table and the Game State S3 bucket.
- D. Use an IAM user with access credentials assigned a role providing access to the Score Data DynamoDB table and the Game State S3 bucket for distribution with the mobile app.

**Answer: B**

#### Explanation: Web Identity Federation

Imagine that you are creating a mobile app that accesses AWS resources, such as a game that runs on a mobile device and stores player and score information using Amazon S3 and DynamoDB. When you write such an app, you'll make requests to AWS services that must be signed with an AWS access key. However, we strongly recommend that you do not embed or distribute long-term AWS credentials with apps that a user downloads to a device, even in an encrypted store. Instead, build your app so that it requests temporary AWS security credentials dynamically when needed using web identity federation. The supplied temporary credentials map to an AWS role that has only the permissions needed to perform the tasks required by the mobile app.

With web identity federation, you don't need to create custom sign-in code or manage your own user identities. Instead, users of your app can sign in using a well-known identity provider (IdP) - such as Login with Amazon, Facebook, Google, or any other OpenID Connect (OIDC)-compatible IdP, receive an authentication token, and then exchange that token for temporary security credentials in AWS that map to an IAM role with permissions to use the resources in your AWS account. Using an IdP helps you keep your AWS account secure, because you don't have to embed and distribute long-term security credentials with your application.

For most scenarios, we recommend that you use Amazon Cognito because it acts as an identity broker and does much of the federation work for you. For details, see the following section, Using Amazon Cognito for Mobile Apps.

If you don't use Amazon Cognito, then you must write code that interacts with a web IdP (Login with Amazon, Facebook, Google, or any other OIDC-compatible IdP) and then calls the Assume Role With Web Identity API to trade the authentication token you get from those IdPs for AWS temporary security credentials. If you have already used this approach for existing apps, you can continue to use it.

#### Using Amazon Cognito for Mobile Apps

The preferred way to use web identity federation is to use Amazon Cognito. For example, Adele the developer is building a game for a mobile device where user data such as scores and profiles is stored in Amazon S3 and Amazon DynamoDB. Adele could also store this data locally on the device and use Amazon Cognito to keep it synchronized across devices. She knows that for security and maintenance reasons, long-term AWS security credentials should not be distributed with the game. She also knows that the game might have a large number of users. For all of these reasons, she does not want to create new user identities in IAM for each player. Instead, she builds the game so that users can sign in using an identity that they've already established with a well-known identity provider, such as Login with Amazon, Facebook, Google, or any OpenID Connect (OIDC)-compatible identity provider.

Her game can take advantage of the authentication mechanism from one of these providers to validate the user's identity.

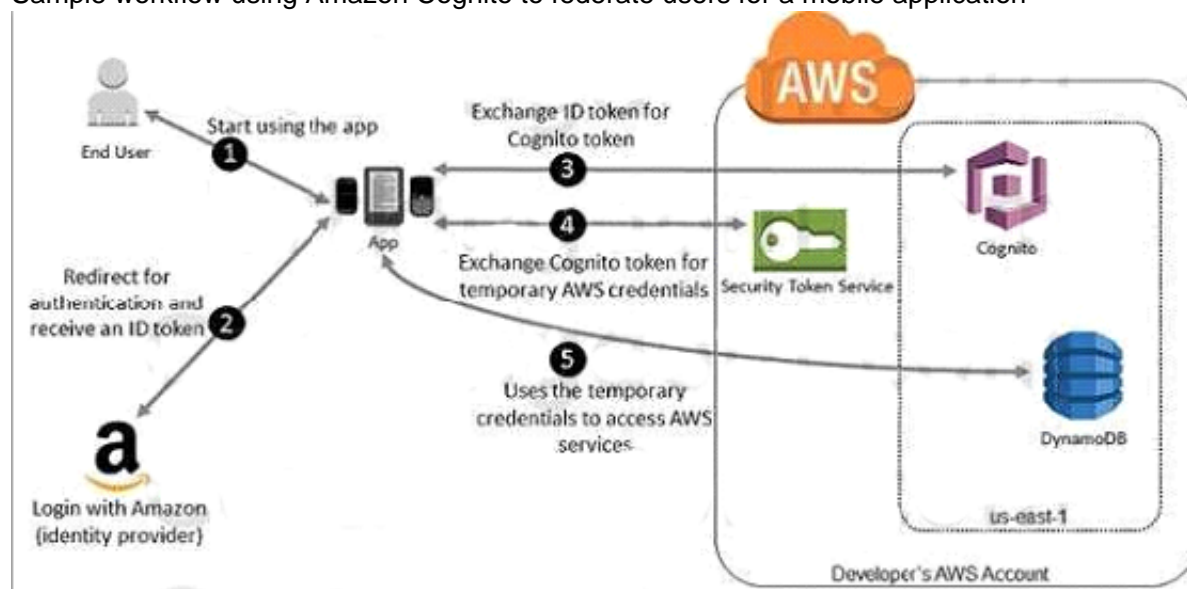
To enable the mobile app to access her AWS resources, Adele first registers for a developer ID with her chosen IdPs. She also configures the application with each of these providers. In her AWS account that contains the Amazon S3 bucket and DynamoDB table for the game, Adele uses Amazon Cognito to create IAM roles that precisely define permissions that the game needs. If she is using an OIDC IdP, she also creates an IAM OIDC identity provider entity to establish trust between her AWS account and the IdP.

In the app's code, Adele calls the sign-in interface for the IdP that she configured previously. The IdP handles all the details of letting the user sign in, and the app gets an OAuth access token or OIDC ID token from the provider. Adele's app can trade this authentication information for a set of temporary security credentials that consist of an AWS access key ID, a secret access key, and a session token.

The app can then use these credentials to access web services offered by AWS. The app is limited to the permissions that are defined in the role that it assumes. The following figure shows a simplified flow for how this might work, using Login with Amazon as the IdP.

For Step 2, the app can also use Facebook, Google, or any OIDC-compatible identity provider, but that's not shown here.

Sample workflow using Amazon Cognito to federate users for a mobile application



A customer starts your app on a mobile device. The app asks the user to sign in. The app uses Login with Amazon resources to accept the user's credentials. The app uses Cognito APIs to exchange the Login with Amazon ID token for a Cognito token. The app requests temporary security credentials from AWS STS, passing the Cognito token.

The temporary security credentials can be used by the app to access any AWS resources required by the app to operate. The role associated with the temporary security credentials and its assigned policies determines what can be accessed.

Use the following process to configure your app to use Amazon Cognito to authenticate users and give your app access to AWS resources. For specific steps to accomplish this scenario, consult the documentation for Amazon Cognito.

(Optional) Sign up as a developer with Login with Amazon, Facebook, Google, or any other OpenID Connect (OIDC)-compatible identity provider and configure one or more apps with the provider. This step is optional because Amazon Cognito also supports unauthenticated (guest) access for your users.

Go to Amazon Cognito in the AWS IAM Management Console. Use the Amazon Cognito wizard to create an identity pool, which is a container that Amazon Cognito uses to keep end user identities organized for your apps. You can share identity pools between apps. When you set up an identity pool, Amazon Cognito creates one or two IAM roles (one for authenticated identities, and one for unauthenticated "guest" identities) that define permissions for Amazon Cognito users.

Download and integrate the AWS SDK for iOS or the AWS SDK for Android with your app, and import the files required to use Amazon Cognito.

Create an instance of the Amazon Cognito credentials provider, passing the identity pool ID, your AWS account number, and the Amazon Resource Name (ARN) of the roles that you associated with the identity pool. The Amazon Cognito wizard in the AWS Management Console provides sample code to help you get started.

When your app accesses an AWS resource, pass the credentials provider instance to the client object, which passes temporary security credentials to the client. The permissions for the credentials are based on the role or roles that you defined earlier.

#### NEW QUESTION 475

Your company plans to host a large donation website on Amazon Web Services (AWS). You anticipate a large and undetermined amount of traffic that will create many database writes. To be certain that you do not drop any writes to a database hosted on AWS. Which service should you use?

- A. Amazon RDS with provisioned IOPS up to the anticipated peak write throughput.
- B. Amazon Simple Queue Service (SQS) for capturing the writes and draining the queue to write to the database.
- C. Amazon ElastiCache to store the writes until the writes are committed to the database.
- D. Amazon DynamoDB with provisioned write throughput up to the anticipated peak write throughput.

**Answer: B**

**Explanation:** Amazon Simple Queue Service (Amazon SQS) offers a reliable, highly scalable hosted queue for storing messages as they travel between computers. By using Amazon SQS, developers can simply move data between distributed application components performing different tasks, without losing messages or requiring each component to be always available. Amazon SQS makes it easy to build a distributed, decoupled application, working in close conjunction with the Amazon Elastic Compute Cloud (Amazon EC2) and the other AWS infrastructure web services.

What can I do with Amazon SQS?

Amazon SQS is a web service that gives you access to a message queue that can be used to store messages while waiting for a computer to process them. This allows you to quickly build message queuing applications that can be run on any computer on the internet. Since Amazon SQS is highly scalable and you only pay for what you use, you can start small and grow your application as you wish, with no compromise on performance or reliability. This lets you focus on building sophisticated message-based applications, without worrying about how the messages are stored and managed.

You can use Amazon SQS with software applications in various ways. For example, you can: Integrate Amazon SQS with other AWS infrastructure web services to make applications more reliable and flexible.

Use Amazon SQS to create a queue of work where each message is a task that needs to be completed by a process. One or many computers can read tasks from the queue and perform them. Build a microservices architecture, using queues to connect your microservices.

Keep notifications of significant events in a business process in an Amazon SQS queue. Each event can have a corresponding message in a queue, and applications that need to be aware of the event can read and process the messages.

#### NEW QUESTION 478

You have launched an EC2 instance with four (4) 500GB EBS Provisioned IOPS volumes attached. The EC2 instance is EBS-Optimized and supports 500 Mbps throughput between EC2 and EBS. The two EBS volumes are configured as a single RAID 0 device, and each Provisioned IOPS volume is provisioned with 4,000 IOPS (4,000 16KB reads or writes) for a total of 16,000 random IOPS on the instance. The EC2 instance initially delivers the expected 16,000 IOPS random read and write performance. Sometime later in order to increase the total random I/O performance of the instance, you add an additional two 500 GB EBS Provisioned IOPS volumes to the RAID. Each volume is provisioned to 4,000 IOPS like the original four for a total of 24,000 IOPS on the EC2 instance. Monitoring shows that the EC2 instance CPU utilization increased from 50% to 70%, but the total random IOPS measured at the instance level does not increase at all. What is the problem and a valid solution?

- A. Larger storage volumes support higher Provisioned IOPS rates: increase the provisioned volume storage of each of the 6 EBS volumes to 1 TB.
- B. The EBS-Optimized throughput limits the total IOPS that can be utilized: use an EBS-Optimized instance that provides larger throughput.
- C. Small block sizes cause performance degradation, limiting the I/O throughput, configure the instance device driver and file system to use 64KB blocks to increase throughput.
- D. RAID 0 only scales linearly to about 4 devices, use RAID 0 with 4 EBS Provisioned IOPS volumes but increase each Provisioned IOPS EBS volume to 6,000 IOPS.
- E. The standard EBS instance root volume limits the total IOPS rate, change the instance root volume to also be a 500GB 4,000 Provisioned IOPS volume.

**Answer: E**

#### NEW QUESTION 482

Your company is in the process of developing a next generation pet collar that collects biometric information to assist families with promoting healthy lifestyles for their pets. Each collar will push 30KB of biometric data in JSON format every 2 seconds to a collection platform that will process and analyze the data providing health trending information back to the pet owners and veterinarians via a web portal. Management has tasked you to architect the collection platform ensuring the following requirements are met.

Provide the ability for real-time analytics of the inbound biometric data. Ensure processing of the biometric data is highly durable, elastic, and parallel. The results of the analytic processing should be persisted for data mining.

Which architecture outlined below will meet the initial requirements for the collection platform?

- A. Utilize S3 to collect the inbound sensor data, analyze the data from S3 with a daily scheduled Data Pipeline and save the results to a Redshift Cluster.
- B. Utilize Amazon Kinesis to collect the inbound sensor data, analyze the data with Kinesis clients and save the results to a Redshift cluster using EMR.
- C. Utilize SQS to collect the inbound sensor data, analyze the data from SQS with Amazon Kinesis and save the results to a Microsoft SQL Server RDS instance.
- D. Utilize EMR to collect the inbound sensor data, analyze the data from S3 with Amazon Kinesis and save the results to DynamoDB.

**Answer: B**

#### NEW QUESTION 484

A web design company currently runs several FTP servers that their 250 customers use to upload and download large graphic files. They wish to move this system to AWS to make it more scalable, but they wish to maintain customer privacy and keep costs to a minimum.

What AWS architecture would you recommend?

- A. Ask their customers to use an S3 client instead of an FTP client.
- B. Create a single S3 bucket. Create an IAM user for each customer. Put the IAM Users in a Group that has an IAM policy that permits access to sub-directories within the bucket via use of the 'username' Policy variable.
- C. Create a single S3 bucket with Reduced Redundancy Storage turned on and ask their customers to use an S3 client instead of an FTP client. Create a bucket for each customer with a Bucket Policy that permits access only to that one customer.
- D. Create an auto-scaling group of FTP servers with a scaling policy to automatically scale-in when minimum network traffic on the auto-scaling group is below a given threshold.



- E. Load a central list of ftp users from 53 as part of the user Data startup script on each Instance.  
F. Create a single 53 bucket with Requester Pays turned on and ask their customers to use an 53 client instead of an FTP client Create a bucket for each customer with a Bucket Policy that permits access only to that one customer.

**Answer:** A

#### NEW QUESTION 487

You have been asked to design the storage layer for an application. The application requires disk performance of at least 100,000 IOPS in addition, the storage layer must be able to survive the loss of an indMdual disk. EC2 instance, or Availability Zone without any data loss. The volume you provide must have a capacity of at least 3 TB. Which of the following designs will meet these objectives'?

- A. Instantiate a c3.8xlarge instance in us-east-1. Provision 4x1TB EBS volumes, attach them to the instance, and configure them as a single RAID 5 volum  
B. Ensure that EBS snapshots are performed every 15 minutes.  
C. Instantiate a c3.8xlarge instance in us-east-1. Provision 3xiTB EBS volumes, attach them to the Instance, and configure them as a single RAID 0 volum  
D. Ensure that EBS snapshots are performed every 15 minutes.  
E. Instantiate an i2.8xlarge instance in us-east-l  
F. Create a RAID 0 volume using the four 800GB SSD ephemeral disks provided with the instanc  
G. Provision 3x1TB EBS volumes, attach them to the instance, and configure them as a second RAID 0 volum  
H. Configure synchronous, block-level replication from the ephemeral-backed volume to the EBS-backed volume.  
I. Instantiate a c3.8xlarge instance in us-east-1. Provision an AWS Storage Gateway and configure it for 3 TB of storage and 100,000 IOP  
J. Attach the volume to the instanc  
K. Instantiate an i2.8xlarge instance in us-east-l  
L. Create a RAID 0 volume using the four 800GB SSD ephemeral disks provided with the instanc  
M. Configure synchronous, block- level replication to an identically configured instance inus-east-l

**Answer:** C

#### NEW QUESTION 491

You would like to create a mirror image of your production environment in another region for disaster recovery purposes. Which of the following AWS resources do not need to be recreated in the second region? (Choose 2 answers)

- A. Route 53 Record Sets  
B. IM Roles  
C. Elastic IP Addresses (EIP)  
D. EC2 Key Pairs  
E. Launch configurations  
F. Security Groups

**Answer:** AC

**Explanation:** Reference:

[http://tech.com/wp-content/themes/optimize/download/AWSDisaster\\_Recovery.pdf](http://tech.com/wp-content/themes/optimize/download/AWSDisaster_Recovery.pdf) (page 6)

#### NEW QUESTION 494

Your company runs a customer facing event registration site This site is built with a 3-tier architecture with web and application tier servers and a MySQL database The application requires 6 web tier servers and 6 application tier servers for normal operation, but can run on a minimum of 65% server capacity and a single MySQL database. When deploying this application in a region with three availability zones (AZs) which architecture provides high availability?

- A. A web tier deployed across 2 AZs with 3 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer), and an application tier deployed across 2 AZs with 3 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB, and one RDS (Relational Database Service) instance deployed with read replicas in the other AZ.  
B. A web tier deployed across 3 AZs with 2 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer) and an application tier deployed across 3 AZs with 2 EC2 instances in each AZ inside an Auto Scaling Group behind an ELB and one RDS (Relational Database Service) Instance deployed with read replicas in the two other AZs.  
C. A web tier deployed across 2 AZs with 3 EC2 (Elastic Compute Cloud) instances in each AZ inside an Auto Scaling Group behind an ELB (elastic load balancer) and an application tier deployed across 2 AZs with 3 EC2 instances m each AZ inside an Auto Scaling Group behind an ELS and a Multi-AZ RDS (Relational Database Service) deployment.  
D. A web tier deployed across 3 AZs with 2 EC2 (Elastic Compute Cloud) instances in each AZ Inside an Auto Scaling Group behind an ELB (elastic load balancer). And an application tier deployed across 3 AZs with 2 EC2 instances in each AZ inside an Auto Scaling Group behind an EL  
E. And a Multi-AZ RDS (Relational Database services) deployment.

**Answer:** D

**Explanation:** Amazon RDS Multi-AZ Deployments

Amazon RDS Multi-AZ deployments provide enhanced availability and durability for Database (DB) Instances, making them a natural fit for production database workloads. When you provision a Multi-AZ DB Instance, Amazon RDS automatically creates a primary DB Instance and synchronously replicates the data to a standby instance in a different Availability Zone (AZ). Each AZ runs on its own physically distinct, independent infrastructure, and is engineered to be highly reliable. In case of an infrastructure failure (for example, instance hardware failure, storage failure, or network disruption), Amazon RDS performs an automatic failover to the standby, so that you can resume database operations as soon as the failover is complete. Since the endpoint for your DB Instance remains the same after a failover, your application can resume database operation without the need for manual administrative intervention.

Enhanced Durability

Multi-AZ deployments for the MySQL, Oracle, and PostgreSQL engines utilize synchronous physical replication to keep data on the standby up-to-date with the primary. Multi-AZ deployments for the SQL Server engine use synchronous logical replication to achieve the same result, employing SQL Server-native Mirroring technology. Both approaches safeguard your data in the event of a DB Instance failure or loss of an Availability Zone.

If a storage volume on your primary fails in a Multi-AZ deployment, Amazon RDS automatically initiates a failover to the up-to-date standby. Compare this to a Single-AZ deployment: in case of a Single-AZ database failure, a user-initiated point-in-time-restore operation will be required. This operation can take several hours to complete, and any data updates that occurred after the latest restorable time (typically within the last five minutes) will not be available.

Amazon Aurora employs a highly durable, SSD-backed virtualized storage layer purpose-built for database workloads. Amazon Aurora automatically replicates your volume six ways, across three Availability Zones. Amazon Aurora storage is fault-tolerant, transparently handling the loss of up to two copies of data without



affecting database write availability and up to three copies without affecting read availability. Amazon Aurora storage is also self-healing. Data blocks and disks are continuously scanned for errors and replaced automatically.

#### Increased Availability

You also benefit from enhanced database availability when running Multi-AZ deployments. If an Availability Zone failure or DB Instance failure occurs, your availability impact is limited to the time automatic failover takes to complete: typically under one minute for Amazon Aurora and one to two minutes for other database engines (see the RDS FAQ for details).

The availability benefits of Multi-AZ deployments also extend to planned maintenance and backups. In the case of system upgrades like QS patching or DB Instance scaling, these operations are applied first on

the standby, prior to the automatic failover. As a result, your availability impact is, again, only the time required for automatic failover to complete.

Unlike Single-AZ deployments, I/O activity is not suspended on your primary during backup for Multi-AZ deployments for the MySQL, Oracle, and PostgreSQL engines, because the backup is taken from the standby. However, note that you may still experience elevated latencies for a few minutes during backups for Multi-AZ deployments.

On instance failure in Amazon Aurora deployments, Amazon RDS uses RDS Multi-AZ technology to automate failover to one of up to 15 Amazon Aurora Replicas you have created in any of three Availability Zones. If no Amazon Aurora Replicas have been provisioned, in the case of a failure, Amazon RDS will attempt to create a new Amazon Aurora DB instance for you automatically.

#### NEW QUESTION 497

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