



Amazon

Exam Questions AWS-Solution-Architect-Associate

AWS Certified Solutions Architect - Associate

NEW QUESTION 1

In Amazon EC2 Container Service components, what is the name of a logical grouping of container instances on which you can place tasks?

- A. A cluster
- B. A container instance
- C. A container
- D. A task definition

Answer: A

Explanation: Amazon ECS contains the following components:

A Cluster is a logical grouping of container instances that you can place tasks on.

A Container instance is an Amazon EC2 instance that is running the Amazon ECS agent and has been registered into a cluster.

A Task definition is a description of an application that contains one or more container definitions. A Scheduler is the method used for placing tasks on container instances.

A Service is an Amazon ECS service that allows you to run and maintain a specified number of instances of a task definition simultaneously.

A Task is an instantiation of a task definition that is running on a container instance. A Container is a Linux container that was created as part of a task.

Reference: <http://docs.aws.amazon.com/AmazonECS/latest/developerguide/Welcome.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

Amazon EBS provides the ability to create backups of any Amazon EC2 volume into what is known as

- A. snapshots
- B. images
- C. instance backups
- D. mirrors

Answer: A

Explanation: Amazon allows you to make backups of the data stored in your EBS volumes through snapshots that can later be used to create a new EBS volume.

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

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

NEW QUESTION 5

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 6

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 7

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 8

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 9

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 10

You are looking at ways to improve some existing infrastructure as it seems a lot of engineering resources are being taken up with basic management and monitoring tasks and the costs seem to be excessive.

You are thinking of deploying Amazon ElastiCache to help. Which of the following statements is true in regards to ElastiCache?

- A. You can improve load and response times to user actions and queries however the cost associated with scaling web applications will be more.
- B. You can't improve load and response times to user actions and queries but you can reduce the cost associated with scaling web applications.
- C. You can improve load and response times to user actions and queries however the cost associated with scaling web applications will remain the same.
- D. You can improve load and response times to user actions and queries and also reduce the cost associated with scaling web applications.

Answer: D

Explanation: Amazon ElastiCache is a web service that makes it easy to deploy and run Memcached or Redis protocol-compliant server nodes in the cloud. Amazon ElastiCache improves the performance of web applications by allowing you to retrieve information from a fast, managed, in-memory caching system, instead of relying entirely on slower disk-based databases. The service simplifies and offloads the management, monitoring and operation of in-memory cache environments, enabling your engineering resources to focus on developing applications. Using Amazon ElastiCache, you can not only improve load and response times to user actions and queries, but also reduce the cost associated with scaling web applications.
Reference: <https://aws.amazon.com/elasticache/faqs/>

NEW QUESTION 10

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 d

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 14

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 16

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 19

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 22

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 23

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 28

While using the EC2 GET requests as URLs, the is the URL that serves as the entry point for the web service.

- A. token
- B. endpoint
- C. action
- D. None of these

Answer: B

Explanation: The endpoint is the URL that serves as the entry point for the web service.

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

NEW QUESTION 31

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 35

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 37

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 38

Much of your company's data does not need to be accessed often, and can take several hours for retrieval time, so it's stored on Amazon Glacier. However someone within your organization has expressed concerns that his data is more sensitive than the other data, and is wondering whether the high level of encryption that he knows is on S3 is also used on the much cheaper Glacier service. Which of the following statements would be most applicable in regards to this concern?

- A. There is no encryption on Amazon Glacier, that's why it is cheaper.
- B. Amazon Glacier automatically encrypts the data using AES-128 a lesser encryption method than Amazon S3 but you can change it to AES-256 if you are willing to pay more.
- C. Amazon Glacier automatically encrypts the data using AES-256, the same as Amazon S3.
- D. Amazon Glacier automatically encrypts the data using AES-128 a lesser encryption method than Amazon S3.

Answer: C

Explanation: Like Amazon S3, the Amazon Glacier service provides low-cost, secure, and durable storage. But where S3 is designed for rapid retrieval, Glacier is meant to be used as an archival service for data that is not accessed often, and for which retrieval times of several hours are suitable.

Amazon Glacier automatically encrypts the data using AES-256 and stores it durably in an immutable form. Amazon Glacier is designed to provide average annual durability of 99.999999999% for an archive. It stores each archive in multiple facilities and multiple devices. Unlike traditional systems which can require laborious data verification and manual repair, Glacier performs regular, systematic data integrity checks, and is built to be automatically self-healing.

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

NEW QUESTION 41

You've created your first load balancer and have registered your EC2 instances with the load balancer. Elastic Load Balancing routinely performs health checks on all the registered EC2 instances and automatically distributes all incoming requests to the DNS name of your load balancer across your registered, healthy EC2 instances. By default, the load balancer uses the _ protocol for checking the health of your instances.

- A. HTTPS
- B. HTTP
- C. ICMP
- D. IPv6

Answer: B

Explanation: In Elastic Load Balancing a health configuration uses information such as protocol, ping port, ping path (URL), response timeout period, and health check interval to determine the health state of the instances registered with the load balancer.

Currently, HTTP on port 80 is the default health check. Reference:

<http://docs.aws.amazon.com/ElasticLoadBalancing/latest/DeveloperGuide/TerminologyandKeyConcepts.html>

NEW QUESTION 45

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 47

In Amazon EC2 Container Service, are other container types supported?

- A. Yes, EC2 Container Service supports any container service you need.
- B. Yes, EC2 Container Service also supports Microsoft container service.
- C. No, Docker is the only container platform supported by EC2 Container Service presently.
- D. Yes, EC2 Container Service supports Microsoft container service and Openstac

Answer: C

Explanation: In Amazon EC2 Container Service, Docker is the only container platform supported by EC2 Container Service presently.

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

NEW QUESTION 51

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

NEW QUESTION 52

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/DeveloperGuide/AS_Concepts.html

NEW QUESTION 56

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 60

You have been doing a lot of testing of your VPC Network by deliberately failing EC2 instances to test whether instances are failing over properly. Your customer who will be paying the AWS bill for all this asks you if he being charged for all these instances. You try to explain to him how the billing works on EC2 instances to the best of your knowledge. What would be an appropriate response to give to the customer in regards to this?

- A. Billing commences when Amazon EC2 AM instance is completely up and billing ends as soon as the instance starts to shutdown.
- B. Billing only commences only after 1 hour of uptime and billing ends when the instance terminates.
- C. Billing commences when Amazon EC2 initiates the boot sequence of an AM instance and billing ends when the instance shuts down.
- D. Billing commences when Amazon EC2 initiates the boot sequence of an AM instance and billing ends as soon as the instance starts to shutdown.

Answer: C

Explanation: Billing commences when Amazon EC2 initiates the boot sequence of an AM instance. Billing ends when the instance shuts down, which could occur through a web services command, by running "shutdown -h", or through instance failure.
Reference: <http://aws.amazon.com/ec2/faqs/#Billing>

NEW QUESTION 61

You log in to IAM on your AWS console and notice the following message. "Delete your root access keys." Why do you think IAM is requesting this?

- A. Because the root access keys will expire as soon as you log out.
- B. Because the root access keys expire after 1 week.
- C. Because the root access keys are the same for all users.
- D. Because they provide unrestricted access to your AWS resource

Answer: D

Explanation: In AWS an access key is required in order to sign requests that you make using the command-line interface (CLI), using the AWS SDKs, or using direct API calls. Anyone who has the access key for your root account has unrestricted access to all the resources in your account, including billing information. One of the best ways to protect your account is to not have an access key for your root account. We recommend that unless you must have a root access key (this is very rare), that you do not generate one. Instead, AWS best practice is to create one or more AWS Identity and Access Management (IAM) users, give them the necessary permissions, and use IAM users for everyday interaction with AWS.

Reference:

<http://docs.aws.amazon.com/general/latest/gr/aws-access-keys-best-practices.html#root-password>

NEW QUESTION 65

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 operatio

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 receMng 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 indMdual 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 66

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 AML with a partner
- C. Share an AML 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 67

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 72

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 75

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

NEW QUESTION 79

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 limited

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 81

Amazon S3 allows you to set per-file permissions to grant read and/or write access. However you have decided that you want an entire bucket with 100 files already in it to be accessible to the public. You don't want to go through 100 files individually and set permissions. What would be the best way to do this?

- A. Move the bucket to a new region
- B. Add a bucket policy to the bucket.
- C. Move the files to a new bucket.
- D. Use Amazon EBS instead of S3

Answer: B

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.

Reference: <http://aws.amazon.com/s3/details/#security>

NEW QUESTION 83

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 CIDR format.

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

NEW QUESTION 87

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 88

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 IV3 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. IV3 instances are configured with more swap memory than M instances.
- C. IV3 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 Machine 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.

IV3 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 91

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 95

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 96

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

NEW QUESTION 100

You are building a system to distribute confidential documents to employees. Using CloudFront, what method could be used to serve content that is stored in S3, but not publically accessible from S3 directly?

- A. Add the CloudFront account security group "amazon-cf/amazon-cf-sg" to the appropriate S3 bucket policy.
- B. Create a S3 bucket policy that lists the CloudFront distribution ID as the Principal and the target bucket as the Amazon Resource Name (ARN).
- C. Create an Identity and Access Management (IAM) User for CloudFront and grant access to the objects in your S3 bucket to that IAM User.
- D. Create an Origin Access Identity (OAI) for CloudFront and grant access to the objects in your S3 bucket to that OAI.

Answer: D

Explanation: You restrict access to Amazon S3 content by creating an origin access identity, which is a special CloudFront user. You change Amazon S3 permissions to give the origin access identity permission to access your objects, and to remove permissions from everyone else. When your users access your Amazon S3 objects using CloudFront URLs, the CloudFront origin access identity gets the objects on your users' behalf. If your users try to access objects using Amazon S3 URLs, they're denied access. The origin access identity has permission to access objects in your Amazon S3 bucket, but users don't. Reference:

<http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/private-content-restricting-access-to-s3.html>

NEW QUESTION 104

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

NEW QUESTION 106

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 108

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 109

Do you need to shutdown your EC2 instance when you create a snapshot of EBS volumes that serve as root devices?

- A. No, you only need to shutdown an instance before deleting it.
- B. Yes
- C. No, the snapshot would turn off your instance automatically.
- D. No

Answer: B

Explanation: Yes, to create a snapshot for Amazon EBS volumes that serve as root devices, you should stop the instance before taking the snapshot.

Reference: <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html>

NEW QUESTION 114

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 115

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 120

Which IAM role do you use to grant AWS Lambda permission to access a DynamoDB Stream?

- A. Dynamic role
- B. Invocation role
- C. Execution role
- D. Event Source role

Answer: C

Explanation: You grant AWS Lambda permission to access a DynamoDB Stream using an IAM role known as the "execution role".

Reference: <http://docs.aws.amazon.com/lambda/latest/dg/intro-permission-model.html>

NEW QUESTION 122

You are signed in as root user on your account but there is an Amazon S3 bucket under your account that you cannot access. What is a possible reason for this?

- A. An IAM user assigned a bucket policy to an Amazon S3 bucket and didn't specify the root user as a principal
- B. The S3 bucket is full.
- C. The S3 bucket has reached the maximum number of objects allowed.
- D. You are in the wrong availability zone

Answer: A

Explanation: With IAM, you can centrally manage users, security credentials such as access keys, and permissions that control which AWS resources users can access.

In some cases, you might have an IAM user with full access to IAM and Amazon S3. If the IAM user assigns a bucket policy to an Amazon S3 bucket and doesn't specify the root user as a principal, the root user is denied access to that bucket. However, as the root user, you can still access the bucket by modifying the bucket policy to allow root user access.

Reference: <http://docs.aws.amazon.com/IAM/latest/UserGuide/iam-troubleshooting.html#testing2>

NEW QUESTION 127

You have a number of image files to encode. In an Amazon SQS worker queue, you create an Amazon SQS message for each file specifying the command (jpeg-encode) and the location of the file in Amazon S3. Which of the following statements best describes the functionality of Amazon SQS?

- A. Amazon SQS is a distributed queuing system that is optimized for horizontal scalability, not for single-threaded sending or receiving speeds.
- B. Amazon SQS is for single-threaded sending or receiving speeds.

- C. Amazon SQS is a non-distributed queuing system.
D. Amazon SQS is a distributed queuing system that is optimized for vertical scalability and for single-threaded sending or receiving speeds.

Answer: A

Explanation: Amazon SQS is a distributed queuing system that is optimized for horizontal scalability, not for single-threaded sending or receiving speeds. A single client can send or receive Amazon SQS messages at a rate of about 5 to 50 messages per second. Higher receive performance can be achieved by requesting multiple messages (up to 10) in a single call. It may take several seconds before a message that has been to a queue is available to be received.

Reference: http://media.amazonwebservices.com/AWS_Storage_Options.pdf

NEW QUESTION 129

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

NEW QUESTION 130

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

NEW QUESTION 131

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. Yes
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. Yes
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 133

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

NEW QUESTION 137

After setting up an EC2 security group with a cluster of 20 EC2 instances, you find an error in the security group settings. You quickly make changes to the security group settings. When will the changes to the settings be effective?

- A. The settings will be effective immediately for all the instances in the security group.
- B. The settings will be effective only when all the instances are restarted.
- C. The settings will be effective for all the instances only after 30 minutes.
- D. The settings will be effective only for the new instances added to the security group.

Answer: A

Explanation: Amazon Redshift applies changes to a cluster security group immediately. So if you have associated the cluster security group with a cluster, inbound cluster access rules in the updated cluster security group apply immediately.

Reference: <http://docs.aws.amazon.com/redshift/latest/mgmt/working-with-security-groups.htm>

NEW QUESTION 141

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 142

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

NEW QUESTION 143

You receive a bill from AWS but are confused because you see you are incurring different costs for the exact same storage size in different regions on Amazon S3. You ask AWS why this is so. What response would you expect to receive from AWS?

- A. We charge less in different time zones.
- B. We charge less where our costs are less.
- C. This will balance out next bill.
- D. It must be a mistake.

Answer: B

Explanation: Amazon S3 is storage for the internet. It's a simple storage service that offers software developers a highly-scalable, reliable, and low-latency data storage infrastructure at very low costs.

AWS charges less where their costs are less.

For example, their costs are lower in the US Standard Region than in the US West (Northern California) Region.
Reference: <https://aws.amazon.com/s3/faqs/>

NEW QUESTION 148

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 153

How long does an AWS free usage tier EC2 last for?

- A. Forever
- B. 12 Months upon signup
- C. 1 Month upon signup
- D. 6 Months upon signup

Answer: B

Explanation: The AWS free usage tier will expire 12 months from the date you sign up. When your free usage expires or if your application use exceeds the free usage tiers, you simply pay the standard, pay-as-you-go service rates.

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

NEW QUESTION 156

A user is hosting a website in the US West-1 region. The website has the highest client base from the Asia-Pacific (Singapore / Japan) region. The application is accessing data from S3 before serving it to client. Which of the below mentioned regions gives a better performance for S3 objects?

- A. Japan
- B. Singapore
- C. US East
- D. US West-1

Answer: D

Explanation: Access to Amazon S3 from within Amazon EC2 in the same region is fast. In this aspect, though the client base is Singapore, the application is being hosted in the US West-1 region. Thus, it is recommended that S3 objects be stored in the US-West-1 region.

Reference: http://media.amazonwebservices.com/AWS_Storage_Options.pdf

NEW QUESTION 158

You have been asked to tighten up the password policies in your organization after a serious security breach, so you need to consider every possible security measure. Which of the following is not an account password policy for IAM Users that can be set?

- A. Force IAM users to contact an account administrator when the user has allowed his or her password to expue.
- B. A minimum password length.
- C. Force IAM users to contact an account administrator when the user has entered his password incorrectly.
- D. Prevent IAM users from reusing previous password

Answer: C

Explanation: IAM users need passwords in order to access the AWS Management Console. (They do not need passwords if they will access AWS resources programmatically by using the CLI, AWS SDKs, or the APIs.)

You can use a password policy to do these things: Set a minimum password length.

Require specific character types, including uppercase letters, lowercase letters, numbers, and non-alphanumeric characters. Be sure to remind your users that passwords are case sensitive. Allow all IAM users to change their own passwords.

Require IAM users to change their password after a specified period of time (enable password expiration). Prevent IAM users from reusing previous passwords.

Force IAM users to contact an account administrator when the user has allowed his or her password to expue.

Reference: http://docs.aws.amazon.com/IAM/latest/UserGuide/Using_ManagingPasswordPolicies.htm

NEW QUESTION 160

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 syste

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 161

You have three Amazon EC2 instances with Elastic IP addresses in the US East (Virginia) region, and you want to distribute requests across all three IPs evenly for users for whom US East (Virginia) is the appropriate region.

How many EC2 instances would be sufficient to distribute requests in other regions?

- A. 3
- B. 9
- C. 2
- D. 1

Answer: D

Explanation: 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.

For example, suppose you have three Amazon EC2 instances with Elastic IP addresses in the US East (Virginia) region and you want to distribute requests across all three IPs evenly for users for whom US East (Virginia) is the appropriate region. Just one Amazon EC2 instance is sufficient in the other regions, although you can apply the same technique to many regions at once.

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

NEW QUESTION 163

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 166

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 169

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 170

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 175

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 180

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 183

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 184

Mike is appointed as Cloud Consultant in Netcrak Inc. Netcrak has the following VPCs set-up in the US East Region:
A VPC with CIDR block 10.10.0.0/16, a subnet in that VPC with CIDR block 10.10.1.0/24 A VPC with CIDR block 10.40.0.0/16, a subnet in that VPC with CIDR block 10.40.1.0/24
Netcrak Inc is trying to establish network connection between two subnets, a subnet with CIDR block 10.10.1.0/24 and another subnet with CIDR block 10.40.1.0/24. Which one of the following solutions should Mke recommend to Netcrak Inc?

- A. Create 2 Virtual Private Gateways and configure one with each VPC.
- B. Create one EC2 instance in each subnet, assign Elastic IPs to both instances, and configure a set up Site-to-Site VPN connection between both EC2 instances.
- C. Create a VPC Peering connection between both VPCs.
- D. Create 2 Internet Gateways, and attach one to each VP

Answer: C

Explanation: A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them using private IP addresses. EC2 instances in either VPC can communicate with each other as if they are within the same network. You can create a VPC peering connection between your own VPCs, or with a VPC in another AWS account within a single region.
AWS uses the existing infrastructure of a VPC to create a VPC peering connection; it is neither a gateway nor a VPN connection, and does not rely on a separate piece of physical hardware.
Reference: <http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-peering.html>

NEW QUESTION 186

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

NEW QUESTION 187

You're trying to delete an SSL certificate from the IAM certificate store, and you're getting the message "Certificate: <certificate-id> is being used by CloudFront." Which of the following statements is probably the reason why you are getting this error?

- A. Before you can delete an SSL certificate, you need to either rotate SSL certificates or revert from using a custom SSL certificate to using the default CloudFront certificate.
- B. You can't delete SSL certificates . You need to request it from AWS.
- C. Before you can delete an SSL certificate, you need to set up the appropriate access level in IAM
- D. Before you can delete an SSL certificate you need to set up https on your serve

Answer: A

Explanation: CloudFront is a web service that speeds up distribution of your static and dynamic web content, for example, .html, .css, .php, and image files, to end users.
Every CloudFront web distribution must be associated either with the default CloudFront certificate or with a custom SSL certificate. Before you can delete an SSL certificate, you need to either rotate SSL certificates (replace the current custom SSL certificate with another custom SSL certificate) or revert from using a custom SSL certificate to using the default CloudFront certificate.
Reference: <http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/Troubleshooting.html>

NEW QUESTION 189

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

NEW QUESTION 191

A user wants to increase the durability and availability of the EBS volume. Which of the below mentioned actions should he perform?

- A. Take regular snapshots.
- B. Create an AMI.
- C. Create EBS with higher capacity.
- D. Access EBS regularly

Answer: A

Explanation: In Amazon Web Services, Amazon EBS volumes that operate with 20 GB or less of modified data since their most recent snapshot can expect an annual failure rate (AFR) between 0.1% and 0.5%. For this reason, to maximize both durability and availability of their Amazon EBS data, the user should frequently create snapshots of the Amazon EBS volumes.

Reference: http://media.amazonwebservices.com/AWS_Storage_Options.pdf

NEW QUESTION 196

Any person or application that interacts with AWS requires security credentials. AWS uses these credentials to identify who is making the call and whether to allow the requested access. You have just set up a VPC network for a client and you are now thinking about the best way to secure this network. You set up a security group called vpcsecuritygroup. Which following statement is true in respect to the initial settings that will be applied to this security group if you choose to use the default settings for this group?

- A. Allow all inbound traffic and allow no outbound traffic.
- B. Allow no inbound traffic and allow all outbound traffic.
- C. Allow inbound traffic on port 80 only and allow all outbound traffic.
- D. Allow all inbound traffic and allow all outbound traffic

Answer: B

Explanation: Amazon VPC provides advanced security features such as security groups and network access control lists to enable inbound and outbound filtering at the instance level and subnet level.

AWS assigns each security group a unique ID in the form sg-xxxxxxx. The following are the initial settings for a security group that you create:

Allow no inbound traffic Allow all outbound traffic

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

NEW QUESTION 198

You are using Amazon SES as an email solution but are unsure of what its limitations are. Which statement below is correct in regards to that?

- A. New Amazon SES users who have received production access can send up to 1,000 emails per 24-hour period, at a maximum rate of 10 emails per second.
- B. Every Amazon SES sender has a the same set of sending limits
- C. Sending limits are based on messages rather than on recipients
- D. Every Amazon SES sender has a unique set of sending limits

Answer: D

Explanation: Amazon Simple Email Service (Amazon SES) is a highly scalable and cost-effective email-sending

service for businesses and developers. Amazon SES eliminates the complexity and expense of building an in-house email solution or licensing, installing, and operating a third-party email service for this type of email communication.

Every Amazon SES sender has a unique set of sending limits, which are calculated by Amazon SES on an ongoing basis:

Sending quota — the maximum number of emails you can send in a 24-hour period. Maximum send rate — the maximum number of emails you can send per second.

New Amazon SES users who have received production access can send up to 10,000 emails per 24-hour period, at a maximum rate of 5 emails per second.

Amazon SES automatically adjusts these limits upward, as long as you send high-quality email. If your existing quota is not adequate for your needs and the system has not automatically increased your quota, you can submit an SES Sending Quota Increase case at any time.

Sending limits are based on recipients rather than on messages. You can check your sending limits at any time by using the Amazon SES console.

Note that if your email is detected to be of poor or QUESTION able quality (e.g., high complaint rates, high bounce rates, spam, or abusive content), Amazon SES might temporarily or permanently reduce your permitted send volume, or take other action as AWS deems appropriate.

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

NEW QUESTION 203

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 205

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 210

Amazon Elastic Load Balancing is used to manage traffic on a fleet of Amazon EC2 instances, distributing traffic to instances across all availability zones within a region. Elastic Load Balancing has all the advantages of an on-premises load balancer, plus several security benefits.

Which of the following is not an advantage of ELB over an on-premise load balancer?

- A. ELB uses a four-tier, key-based architecture for encryption.
- B. ELB offers clients a single point of contact, and can also serve as the first line of defense against attacks on your network.
- C. ELB takes over the encryption and decryption work from the Amazon EC2 instances and manages it centrally on the load balancer.
- D. ELB supports end-to-end traffic encryption using TLS (previously SSL) on those networks that use secure HTTP (HTTPS) connections.

Answer: A

Explanation: Amazon Elastic Load Balancing is used to manage traffic on a fleet of Amazon EC2 instances, distributing traffic to instances across all availability zones within a region. Elastic Load Balancing has all the advantages of an on-premises load balancer, plus several security benefits:

Takes over the encryption and decryption work from the Amazon EC2 instances and manages it centrally on the load balancer

Offers clients a single point of contact, and can also serve as the first line of defense against attacks on your network

When used in an Amazon VPC, supports creation and management of security groups associated with your Elastic Load Balancing to provide additional networking and security options

Supports end-to-end traffic encryption using TLS (previously SSL) on those networks that use secure HTTP (HTTPS) connections. When TLS is used, the TLS server certificate used to terminate client connections can be managed centrally on the load balancer, rather than on every individual instance. Reference:

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

NEW QUESTION 212

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

NEW QUESTION 215

In Amazon CloudFront, if you use Amazon EC2 instances and other custom origins with CloudFront, it is recommended to .

- A. not use Elastic Load Balancing
- B. restrict Internet communication to private instances while allowing outgoing traffic
- C. enable access key rotation for CloudWatch metrics
- D. specify the URL of the load balancer for the domain name of your origin server

Answer: D

Explanation: In Amazon CloudFront, you should use an Elastic Load Balancing load balancer to handle traffic across multiple Amazon EC2 instances and to

isolate your application from changes to Amazon EC2 instances. When you create your CloudFront distribution, specify the URL of the load balancer for the domain name of your origin server.

Reference: <http://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/CustomOriginBestPractices.html>

NEW QUESTION 216

A government client needs you to set up secure cryptographic key storage for some of their extremely confidential data. You decide that the AWS CloudHSM is the best service for this. However, there seem to be a few pre-requisites before this can happen, one of those being a security group that has certain ports open. Which of the following is correct in regards to those security groups?

- A. A security group that has port 22 (for SSH) or port 3389 (for RDP) open to your network.
- B. A security group that has no ports open to your network.
- C. A security group that has only port 3389 (for RDP) open to your network.
- D. A security group that has only port 22 (for SSH) open to your network.

Answer: A

Explanation: AWS CloudHSM provides secure cryptographic key storage to customers by making hardware security modules (HSMs) available in the AWS cloud. AWS CloudHSM requires the following environment before an HSM appliance can be provisioned. A virtual private cloud (VPC) in the region where you want the AWS CloudHSM service.

One private subnet (a subnet with no Internet gateway) in the VPC. The HSM appliance is provisioned into this subnet.

One public subnet (a subnet with an Internet gateway attached). The control instances are attached to this subnet.

An AWS Identity and Access Management (IAM) role that delegates access to your AWS resources to AWS CloudHSM.

An EC2 instance, in the same VPC as the HSM appliance, that has the SafeNet client software installed. This instance is referred to as the control instance and is used to connect to and manage the HSM appliance.

A security group that has port 22 (for SSH) or port 3389 (for RDP) open to your network. This security group is attached to your control instances so you can access them remotely.

NEW QUESTION 218

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 220

Are penetration tests allowed as long as they are limited to the customer's instances?

- A. Yes, they are allowed but only for selected regions.
- B. No, they are never allowed.
- C. Yes, they are allowed without any permission.
- D. Yes, they are allowed but only with approval.

Answer: D

Explanation: Penetration tests are allowed after obtaining permission from AWS to perform them. Reference: <http://aws.amazon.com/security/penetration-testing/>

NEW QUESTION 222

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 227

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 DKIMI 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 230

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 234

Content and Media 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

NEW QUESTION 237

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 238

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 239

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 244

A company wants to review the security requirements of Glacier. Which of the below mentioned statements is true with respect to the AWS Glacier data security?

- A. All data stored on Glacier is protected with AES-256 serverside encryption.
- B. All data stored on Glacier is protected with AES-128 serverside encryption.
- C. The user can set the serverside encryption flag to encrypt the data stored on Glacier.
- D. The data stored on Glacier is not encrypted by default

Answer: A

Explanation: For Amazon Web Services, all the data stored on Amazon Glacier is protected using serverside encryption. AWS generates separate unique encryption keys for each Amazon Glacier archive, and encrypts it using AES-256. The encryption key then encrypts itself using AES-256 with a master key that is stored in a secure location.

Reference: http://media.amazonwebservices.com/AWS_Security_Best_Practices.pdf

NEW QUESTION 249

A friend wants you to set up a small BitTorrent storage area for him on Amazon S3. You tell him it is highly unlikely that AWS would allow such a thing in their infrastructure. However you decide to investigate. Which of the following statements best describes using BitTorrent with Amazon S3?

- A. Amazon S3 does not support the BitTorrent protocol because it is used for pirated software.
- B. You can use the BitTorrent protocol but only for objects that are less than 100 GB in size.
- C. You can use the BitTorrent protocol but you need to ask AWS for specific permissions first.
- D. You can use the BitTorrent protocol but only for objects that are less than 5 GB in size

Answer: D

Explanation: BitTorrent is an open, peer-to-peer protocol for distributing files. You can use the BitTorrent protocol to retrieve any publicly-accessible object in Amazon S3.

Amazon S3 supports the BitTorrent protocol so that developers can save costs when distributing content at high scale. Amazon S3 is useful for simple, reliable storage of any data. The default distribution mechanism for Amazon S3 data is via client/server download. In client/server distribution, the entire object is

transferred point-to-point from Amazon S3 to every authorized user who requests that object. While client/server delivery is appropriate for a wide variety of use cases, it is not optimal for everybody. Specifically, the costs of client/server distribution increase linearly as the number of users downloading objects increases. This can make it expensive to distribute popular objects.

BitTorrent addresses this problem by recruiting the very clients that are downloading the object as distributors themselves: Each client downloads some pieces of the object from Amazon S3 and some from other clients, while simultaneously uploading pieces of the same object to other interested "peers." The benefit for publishers is that for large, popular files the amount of data actually supplied by Amazon S3 can be substantially lower than what it would have been serving the same clients via client/server download. Less data transferred means lower costs for the publisher of the object.

Reference: <http://docs.aws.amazon.com/AmazonS3/latest/dev/S3Torrent.html>

NEW QUESTION 254

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 hour

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 256

In the most recent company meeting, your CEO focused on the fact that everyone in the organization needs to make sure that all of the infrastructure that is built is truly scalable. Which of the following statements is incorrect in reference to scalable architecture?

- A. A scalable service is capable of handling heterogeneity.
- B. A scalable service is resilient.
- C. A scalable architecture won't be cost effective as it grows.
- D. Increasing resources results in a proportional increase in performance

Answer: C

Explanation: In AWS it is critical to build a scalable architecture in order to take advantage of a scalable infrastructure. The cloud is designed to provide conceptually infinite scalability. However, you cannot leverage all that scalability in infrastructure if your architecture is not scalable. Both have to work together. You will have to identify the monolithic components and bottlenecks in your architecture, identify the areas where you cannot leverage the on-demand provisioning capabilities in your architecture, and work to refactor your application, in order to leverage the scalable infrastructure and take advantage of the cloud.

Characteristics of a truly scalable application:

Increasing resources results in a proportional increase in performance A scalable service is capable of handling heterogeneity

A scalable service is operationally efficient A scalable service is resilient

A scalable service should become more cost effective when it grows (Cost per unit reduces as the number of units increases)

Reference: http://media.amazonwebservices.com/AWS_Cloud_Best_Practices.pdf

NEW QUESTION 260

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 265

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

- A. You can change the outbound rules for EC2-Classic
- B. Also, you can add and remove rules to a group at any time.
- C. You can modify an existing rule in a group
- 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 time

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 266

Which DNS name can only be resolved within Amazon EC2?

- A. Public DNS name
- B. Internal DNS name
- C. External DNS name
- D. Global DNS name

Answer: B

Explanation: Only Internal DNS name can be resolved within Amazon EC2. Reference:

<http://docs.amazonwebservices.com/AWSEC2/latest/UserGuide/using-instance-addressing.html>

NEW QUESTION 270

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 stopped
- 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-appliances-in-your-vpc>

NEW QUESTION 271

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

NEW QUESTION 276

You can seamlessly join an EC2 instance to your directory domain. What connectMty do you need to be able to connect remotely to this instance?

- A. You must have IP connectMty to the instance from the network you are connecting from.
- B. You must have the correct encryption keys to connect to the instance remotely.
- C. You must have enough bandwidth to connect to the instance.
- D. You must use MFA authentication to be able to connect to the instance remotel

Answer: A

Explanation: You can seamlessly join an EC2 instance to your directory domain when the instance is launched using the Amazon EC2 Simple Systems Manager. If you need to manuallyjoin an EC2 instance to your domain, you must launch the instance in the proper region and security group or subnet, then join the instance to the domain. To be able to connect remotely to these instances, you must have IP connectMty to the instances from the network you are connecting from. In most cases, this requires that an Internet gateway be attached to your VPC and that the instance has a public IP address.

Reference: http://docs.aws.amazon.com/directoryservice/latest/admin-guide/join_a_directory.html

NEW QUESTION 278

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 283

Can you encrypt EBS volumes?

- A. Yes, you can enable encryption when you create a new EBS volume using the AWS Management Console, API, or CLI.
- B. No, you should use a third-party software to perform raw block-level encryption of an EBS volume.
- C. Yes, but you must use a third-party API for encrypting data before it's loaded on EBS.
- D. Yes, you can encrypt with the special "ebs_encrypt" command through Amazon API

Answer: A

Explanation: With Amazon EBS encryption, you can now create an encrypted EBS volume and attach it to a supported instance type. Data on the volume, disk I/O, and snapshots created from the volume are then all encrypted. The encryption occurs on the servers that host the EC2 instances, providing encryption of data as it moves between EC2 instances and EBS storage. EBS encryption is based on the industry standard AES-256 cryptographic algorithm.

To get started, simply enable encryption when you create a new EBS volume using the AWS Management Console, API, or CLI. Amazon EBS encryption is available for all the latest EC2 instances in all commercially available AWS regions.

Reference:

<https://aws.amazon.com/about-aws/whats-new/2014/05/21/Amazon-EBS-encryption-now-available/>

NEW QUESTION 288

A user is running a webserver on EC2. The user wants to receive the SMS when the EC2 instance utilization is above the threshold limit. Which AWS services should the user configure in this case?

- A. AWS CloudWatch + AWS SQS.
- B. AWS CloudWatch + AWS SNS.
- C. AWS CloudWatch + AWS SES.
- D. AWS EC2 + AWS Cloudwatc

Answer: B

Explanation: 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. In this case, the user can configure that Cloudwatch sends an alarm on when the threshold is crossed to SNS which will trigger an SMS.

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

NEW QUESTION 289

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 291

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

NEW QUESTION 295

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 296

You have been asked to set up monitoring of your network and you have decided that Cloudwatch would be the best service to use. Amazon CloudWatch monitors your Amazon Web Services (AWS) resources and the applications you run on AWS in real-time. You can use CloudWatch to collect and track metrics, which are the variables you want to measure for your resources and applications. Which of the following items listed can AWS Cloudwatch monitor?

- A. Log files your applications generate.
- B. All of the items listed on this page.
- C. System-wide visibility into resource utilization, application performance, and operational health.
- D. Custom metrics generated by your applications and services .

Answer: B

Explanation: Amazon CloudWatch can monitor AWS resources such as Amazon EC2 instances, Amazon DynamoDB tables, and Amazon RDS DB instances, as well as custom metrics generated by your applications and services, and any log files your applications generate. You can use Amazon CloudWatch to gain system-wide visibility into resource utilization, application performance, and operational health. You can use these insights to react and keep your application running smoothly.

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

NEW QUESTION 298

You need to quickly set up an email-sending service because a client needs to start using it in the next hour. Amazon Simple Email Service (Amazon SES) seems to be the logical choice but there are several options available to set it up. Which of the following options to set up SES would best meet the needs of the client?

- A. Amazon SES console
- B. AWS CloudFormation
- C. SMTP Interface
- D. AWS Elastic Beanstalk

Answer: A

Explanation: Amazon SES is an outbound-only email-sending service that provides an easy, cost-effective way for you to send email.

There are several ways that you can send an email by using Amazon SES. You can use the Amazon SES console, the Simple Mail Transfer Protocol (SMTP) interface, or you can call the Amazon SES API. Amazon SES console—This method is the quickest way to set up your system
Reference: <http://docs.aws.amazon.com/ses/latest/DeveloperGuide/Welcome.html>

NEW QUESTION 302

After deciding that EMR will be useful in analysing vast amounts of data for a gaming website that you are architecting you have just deployed an Amazon EMR Cluster and wish to monitor the cluster performance. Which of the following tools cannot be used to monitor the cluster performance?

- A. Kinesis
- B. Ganglia
- C. CloudWatch Metrics
- D. Hadoop Web Interfaces

Answer: A

Explanation: Amazon EMR provides several tools to monitor the performance of your cluster. Hadoop Web Interfaces

Every cluster publishes a set of web interfaces on the master node that contain information about the cluster. You can access these web pages by using an SSH tunnel to connect them on the master node. For more information, see [View Web Interfaces Hosted on Amazon EMR Clusters](#).

CloudWatch Metrics

Every cluster reports metrics to CloudWatch. CloudWatch is a web service that tracks metrics, and which you can use to set alarms on those metrics. For more information, see [Monitor Metrics with CloudWatch](#).

Ganglia

Ganglia is a cluster monitoring tool. To have this available, you have to install Ganglia on the cluster when you launch it. After you've done so, you can monitor the cluster as it runs by using an SSH tunnel to connect to the Ganglia UI running on the master node. For more information, see [Monitor Performance with Ganglia](#).

Reference:

<http://docs.aws.amazon.com/ElasticMapReduce/latest/DeveloperGuide/emr-troubleshoot-tools.html>

NEW QUESTION 305

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 307

You need to develop and run some new applications on AWS and you know that Elastic Beanstalk and CloudFormation can both help as a deployment mechanism for a broad range of AWS resources. Which of the following statements best describes the differences between Elastic Beanstalk and CloudFormation?

- A. Elastic Beanstalk uses Elastic load balancing and CloudFormation doesn't.
- B. CloudFormation is faster in deploying applications than Elastic Beanstalk.
- C. Elastic Beanstalk is faster in deploying applications than CloudFormation.
- D. CloudFormation is much more powerful than Elastic Beanstalk, because you can actually design and script custom resources

Answer: D

Explanation: These services are designed to complement each other. AWS Elastic Beanstalk provides an environment to easily develop and run applications in the cloud. It is integrated with developer tools and provides a one-stop experience for you to manage the lifecycle of your applications. AWS CloudFormation is a convenient deployment mechanism for a broad range of AWS resources. It supports the infrastructure needs of many different types of applications such as existing enterprise applications, legacy applications, applications built using a variety of AWS resources and container-based solutions (including those built using AWS Elastic Beanstalk).

AWS CloudFormation introduces two new concepts: The template, a JSON-format, text-based file that describes all the AWS resources you need to deploy to run your application and the stack, the set of AWS resources that are created and managed as a single unit when AWS CloudFormation instantiates a template.

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

NEW QUESTION 308

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 individual 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 AMIs and supplement with file-level backup to S3 using traditional enterprise backup software to provide file level restore
- B. Backup RDS using a Multi-AZ Deployment Backup the EC2 instances using AMIs, and supplement by copying file system data to S3 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 S3 using Oracle RMAN Backup the EC2 instances using AMIs, and supplement with EBS snapshots for individual 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 311

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 53?

- A. Use an EC2 Instance that is launched with an EC2 role providing access to the Score Data DynamoDB table and the GameState 53 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 53 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 53 bucket.
- D. Use an IAM user with access credentials assigned a role providing access to the Score Data DynamoDB table and the Game State 53 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.

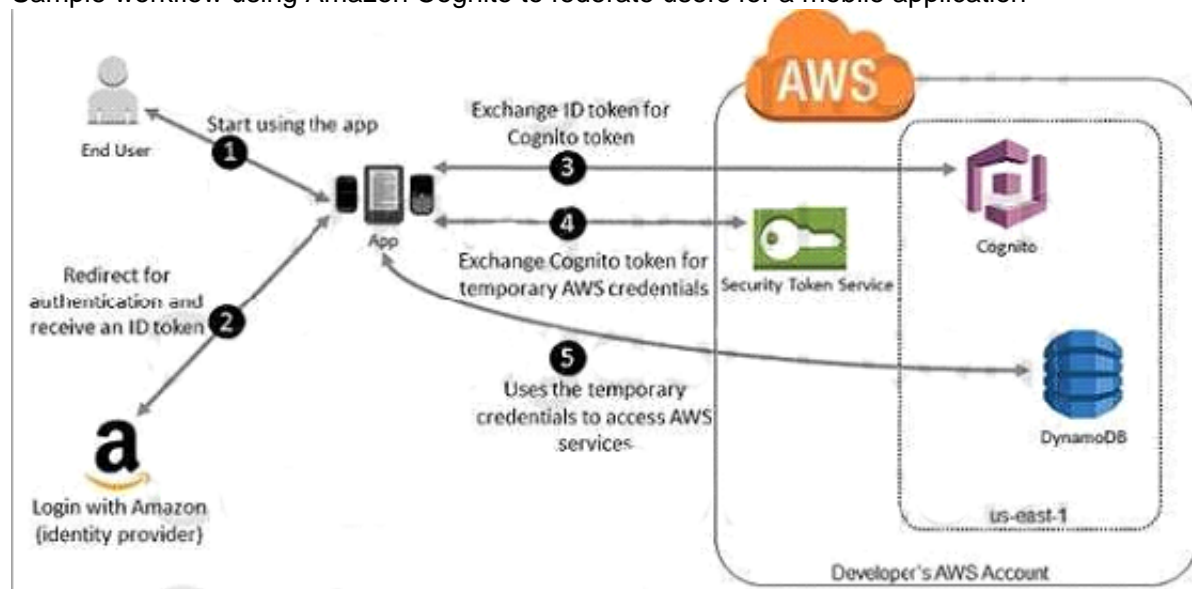
In the app's code, Adele calls the sign-in interface for the IdP that she configured previously. The IdP handles all the details of letting the user sign in, and the app gets an OAuth access token or OIDC ID token from the provider. Adele's app can trade this authentication information for a set of temporary 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 312

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 317

You need a persistent and durable storage to trace call activity of an IVR (Interactive Voice Response) system. Call duration is mostly in the 2-3 minutes timeframe. Each traced call can be either active or terminated. An external application needs to know each minute the list of currently active calls, which are usually a few calls/second. Put once per month there is a periodic peak up to 1000 calls/second for a few hours. The system is open 24/7 and any downtime should be avoided.

Historical data is periodically archived to files. Cost saving is a priority for this project.

What database implementation would better fit this scenario, keeping costs as low as possible?

- A. Use RDS Multi-AZ with two tables, one for "Active calls" and one for "Terminated calls". In this way the "Active calls" table is always small and effective to access.
- B. Use DynamoDB with a "Calls" table and a Global Secondary Index on a "IsActive" attribute that is present for active calls only. In this way the Global Secondary index is sparse and more effective.
- C. Use DynamoDB with a "Calls" table and a Global secondary index on a "State" attribute that can equal to "active" or "terminated" in this way the Global Secondary index can be used for all items in the table.
- D. Use RDS Multi-AZ with a "CALLS" table and an Indexed "STATE" field that can be equal to "ACTIVE" or "TERMINATED". In this way the SQL query is optimized by the use of the Index.

Answer: A

NEW QUESTION 321

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 S3 as part of the user Data startup script on each Instance.
- F. Create a single S3 bucket with Requester Pays 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.

Answer: A

NEW QUESTION 323

You are responsible for a legacy web application whose server environment is approaching end of life. You would like to migrate this application to AWS as quickly as possible, since the application environment currently has the following limitations:

The VM's single 10GB VMDK is almost full. The virtual network interface still uses the 10Mbps driver, which leaves your 100Mbps WAN connection completely underutilized.

It is currently running on a highly customized. Windows VM within a VMware environment: You do not have me installation media
 This is a mission critical application with an RTO (Recovery Time Objective) of 8 hours. RPO (Recovery Point Objective) of 1 hour. How could you best migrate this application to AWS while meeting your business continuity requirements?

- A. Use the EC2 VM Import Connector for vCenter to import the VM into EC2.
- B. Use Import/Export to import the VM as an ESS snapshot and attach to EC2.
- C. Use 53 to create a backup of the VM and restore the data into EC2.
- D. Use me ec2-bundle-instance API to Import an Image of the VM into EC2

Answer: A

NEW QUESTION 328

An International company has deployed a multi-tier web application that relies on DynamoDB in a single region For regulatory reasons they need disaster recovery capability In a separate region with a Recovery Time Objective of 2 hours and a Recovery Point Objective of 24 hours They should synchronize their data on a regular basis and be able to provision me web application rapidly using CloudFormation.

The objective is to minimize changes to the existing web application, control the throughput of DynamoDB used for the synchronization of data and synchronize only the modified elements.

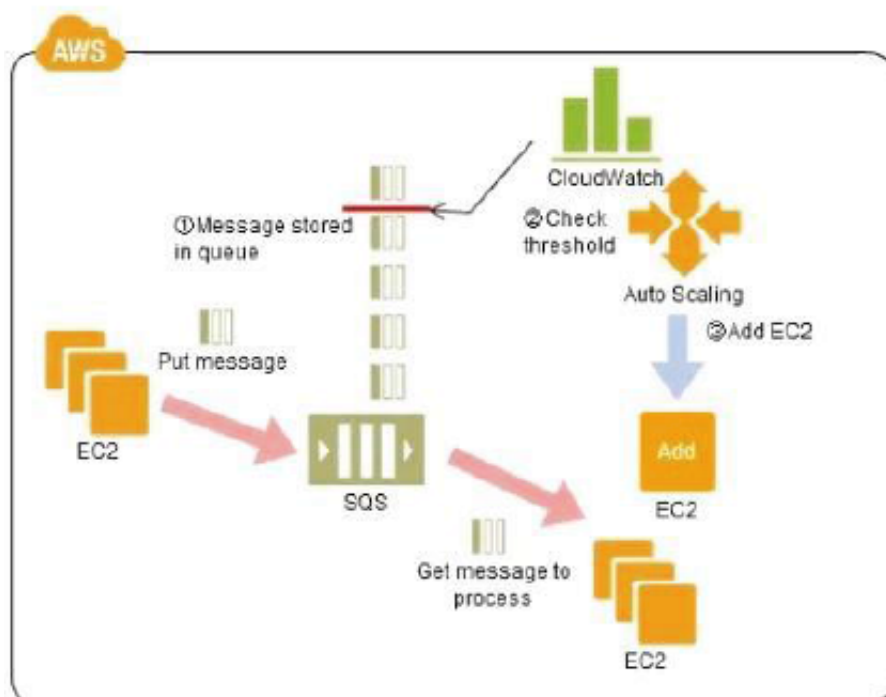
Which design would you choose to meet these requirements?

- A. Use AWS data Pipeline to schedule a DynamoDB cross region copy once a da
- B. create a Last updated' attribute in your DynamoDB table that would represent the timestamp of the last update and use it as a filter.
- C. Use EMR and write a custom script to retrieve data from DynamoDB in the current region using a SCAN operation and push it to Dynamo DB in the second region.
- D. Use AWS data Pipeline to schedule an export of the DynamoDB table to 53 in the current region once a day then schedule another task immediately after it that will import data from 53 to DynamoDB in the other region.
- E. Send also each Ante into an SOS queue in me second region; use an auto-scaling group behind the SOS queue to replay the write in the second region.

Answer: A

NEW QUESTION 333

Refer to the architecture diagram above of a batch processing solution using Simple Queue Service (SQS) to set up a message queue between EC2 instances which are used as batch processors Cloud Watch monitors the number of Job requests (queued messages) and an Auto Scaling group adds or deletes batch sewers automatically based on parameters set in Cloud Watch alarms. You can use this architecture to implement which of the following features in a cost effective and efficient manner?



- A. Reduce the overall lime for executing jobs through parallel processing by allowing a busy EC2 instance that receives a message to pass it to the next instance in a daisy-chain setup.
- B. Implement fault tolerance against EC2 instance failure since messages would remain in SQS and worn can continue with recovery of EC2 instances implement fault tolerance against SQS failure by backing up messages to 53.
- C. Implement message passing between EC2 instances within a batch by exchanging messages through SQS.
- D. Coordinate number of EC2 instances with number of job requests automatically thus Improving cost effectiveness.
- E. Handle high priority jobs before lower priority jobs by assigning a priority metadata fie Id to SQS messages.

Answer: D

Explanation: Reference:

There are cases where a large number of batch jobs may need processing, and where the jobs may need to be re-prioritized.

For example, one such case is one where there are differences between different levels of services for unpaid users versus subscriber users (such as the time until publication) in services enabling, for example, presentation fi les to be uploaded for publication from a web browser. When the user uploads a presentation file, the conversion processes, for example, for publication are performed as batch

processes on the system side, and the file is published after the conversion. Is it then necessary to be able to assign the level of priority to the batch processes for each type of subscriber.

Explanation of the Cloud Solution/Pattern

A queue is used in controlling batch jobs. The queue need only be provided with priority numbers. Job requests are controlled by the queue, and the job requests in the queue are processed by a batch server. In Cloud computing, a highly reliable queue is provided as a service, which you can use to structure a highly reliable batch system with ease. You may prepare multiple queues depending on priority levels, with job requests put into the queues depending on their priority levels, to apply prioritization to batch processes. The performance (number) of batch servers corresponding to a queue must be in accordance with the priority level thereof.

Implementation

In AWS, the queue service is the Simple Queue Service (SQS). Multiple SQS queues may be prepared to prepare queues for indMdual priority levels (with a

priority queue and a secondary queue).

Moreover, you may also use the message Delayed Send function to delay process execution. Use SQS to prepare multiple queues for the individual priority levels. Place those processes to be executed immediately (job requests) in the high priority queue. Prepare numbers of batch servers, for processing the job requests of the queues, depending on the priority levels.

Queues have a message "Delayed Send" function. You can use this to delay the time for starting a process.

Configuration

Benefits

You can increase or decrease the number of servers for processing jobs to change automatically the processing speeds of the priority queues and secondary queues.

You can handle performance and service requirements through merely increasing or decreasing the number of EC2 instances used in job processing.

Even if an EC2 were to fail, the messages (jobs) would remain in the queue service, enabling processing to be continued immediately upon recovery of the EC2 instance, producing a system that is robust to failure.

Cautions

Depending on the balance between the number of EC2 instances for performing the processes and the number of messages that are queued, there may be cases where processing in the secondary queue may be completed first, so you need to monitor the processing speeds in the primary queue and the secondary queue.

NEW QUESTION 335

Your company currently has a 2-tier web application running in an on-premises data center. You have experienced several infrastructure failures in the past two months resulting in significant financial losses. Your CIO is strongly agreeing to move the application to AWS. While working on achieving buy-in from the other company executives, he asks you to develop a disaster recovery plan to help improve Business continuity in the short term. He specifies a target Recovery Time Objective (RTO) of 4 hours and a Recovery Point Objective (RPO) of 1 hour or less. He also asks you to implement the solution within 2 weeks. Your database is 200GB in size and you have a 20Mbps Internet connection.

How would you do this while minimizing costs?

- A. Create an EBS backed private AMI which includes a fresh install of your application
- B. Develop a CloudFormation template which includes your AMI and the required EC2, AutoScaling, and ELB resources to support deploying the application across Multiple- Availability-Zone
- C. Asynchronously replicate transactions from your on-premises database to a database instance in AWS across a secure VPN connection.
- D. Deploy your application on EC2 instances within an Auto Scaling group across multiple availability zone
- E. Asynchronously replicate transactions from your on-premises database to a database instance in AWS across a secure VPN connection.
- F. Create an EBS backed private AMI which includes a fresh install of your application
- G. Setup a script in your data center to backup the local database every 1 hour and to encrypt and copy the resulting file to an S3 bucket using multi-part upload.
- H. Install your application on a compute-optimized EC2 instance capable of supporting the application's average load
- I. Synchronously replicate transactions from your on-premises database to a database instance in AWS across a secure Direct Connect connection.

Answer: A

Explanation: Overview of Creating Amazon EBS-Backed AMIs

First, launch an instance from an AMI that's similar to the AMI that you'd like to create. You can connect to your instance and customize it. When the instance is configured correctly, ensure data integrity by

stopping the instance before you create an AMI, then create the image. When you create an Amazon EBS-backed AMI, we automatically register it for you.

Amazon EC2 powers down the instance before creating the AMI to ensure that everything on the instance is stopped and in a consistent state during the creation process. If you're confident that your instance is in a consistent state appropriate for AMI creation, you can tell Amazon EC2 not to power down and reboot the instance. Some file systems, such as XFS, can freeze and unfreeze automatically, making it safe to create the image without rebooting the instance.

During the AMI-creation process, Amazon EC2 creates snapshots of your instance's root volume and any other EBS volumes attached to your instance. If any volumes attached to the instance are encrypted, the new AMI only launches successfully on instances that support Amazon EBS encryption. For more information, see Amazon EBS Encryption.

Depending on the size of the volumes, it can take several minutes for the AMI-creation process to complete (sometimes up to 24 hours). You may find it more efficient to create snapshots of your volumes prior to creating your AMI. This way, only small, incremental snapshots need to be created when the AMI is created, and the process completes more quickly (the total time for snapshot creation remains the same). For more information, see Creating an Amazon EBS Snapshot. After the process completes, you have a new AMI and snapshot created from the root volume of the instance. When you launch an instance using the new AMI, we create a new EBS volume for its root volume using the snapshot. Both the AMI and the snapshot incur charges to your account until you delete them. For more information, see Deregistering Your AMI.

If you add instance-store volumes or EBS volumes to your instance in addition to the root device volume, the block device mapping for the new AMI contains information for these volumes, and the block device mappings for instances that you launch from the new AMI automatically contain information for these volumes. The instance-store volumes specified in the block device mapping for the new instance are new and don't contain any data from the instance store volumes of the instance you used to create the AMI. The data on EBS volumes persists. For more information, see Block Device Mapping.

NEW QUESTION 336

Your startup wants to implement an order fulfillment process for selling a personalized gadget that needs an average of 3-4 days to produce with some orders taking up to 6 months you expect 10 orders per day on your first day. 1000 orders per day after 6 months and 10,000 orders after 12 months.

Orders coming in are checked for consistency then dispatched to your manufacturing plant for production quality control packaging shipment and payment processing. If the product does not meet the quality standards at any stage of the process employees may force the process to repeat a step. Customers are notified via email about order status and any critical issues with their orders such as payment failure.

Your case architecture includes AWS Elastic Beanstalk for your website with an RDS MySQL instance for customer data and orders.

How can you implement the order fulfillment process while making sure that the emails are delivered reliably?

- A. Add a business process management application to your Elastic Beanstalk app servers and re-use the RDS database for tracking order status use one of the Elastic Beanstalk instances to send emails to customers.
- B. Use SWF with an Auto Scaling group of activity workers and a decider instance in another Auto Scaling group with min/max=1 Use the decider instance to send emails to customers.
- C. Use SWF with an Auto Scaling group of activity workers and a decider instance in another Auto Scaling group with min/max=1 use SES to send emails to customers.
- D. Use an SQS queue to manage all process tasks Use an Auto Scaling group of EC2 Instances that poll the tasks and execute the
- E. Use SES to send emails to customers.

Answer: C

NEW QUESTION 341

Your system recently experienced down time during the troubleshooting process. You found that a new administrator mistakenly terminated several production EC2 instances.

Which of the following strategies will help prevent a similar situation in the future? The administrator still must be able to:

- launch, start stop, and terminate development resources.
- launch and start production instances.

- A. Create an IAM user, which is not allowed to terminate instances by leveraging production EC2 termination protection.
- B. Leverage resource based tagging along with an IAM user, which can prevent specific users from terminating production EC2 resources.
- C. Leverage EC2 termination protection and multi-factor authentication, which together require users to authenticate before terminating EC2 instances
- D. Create an IAM user and apply an IAM role which prevents users from terminating production EC2 instances.

Answer: B

Explanation: Working with volumes

When an API action requires a caller to specify multiple resources, you must create a policy statement that allows users to access all required resources. If you need to use a Condition element with one or more of these resources, you must create multiple statements as shown in this example.

The following policy allows users to attach volumes with the tag "volume_user=iam-user-name" to instances with the tag "department=dev", and to detach those volumes from those instances. If you attach this policy to an IAM group, the aws:username policy variable gives each IAM user in the group permission to attach or detach volumes from the instances with a tag named volume_user that has his or her IAM user name as a value.

```
{
  "Version": "2012-10-17",
  "Statement": [{
    "Effect": "Allow", "Action": [ "ec2:AttachVolume",
    "ec2:DetachVolume" ],
    "Resource": "arn :aws:ec2:us-east-1:123456789012:instance/*", "Condition": {
    "StringEquals": { "ec2:ResourceTag/department": "dev" }
  }
},
{
  "Effect": "Allow", "Action": [ "ec2:AttachVolume", "ec2:DetachVolume" ],
  "Resource": "arn:aws:ec2:us-east-1:123456789012:volume/*", "Condition": {
  "StringEquals": {
    "ec2:ResourceTag/volume_user": "${aws:username}"
  }
}
}]
```

Launching instances (RunInstances)

The RunInstances API action launches one or more instances. RunInstances requires an AMI and creates an instance; and users can specify a key pair and security group in the request. Launching into EC2-VPC requires a subnet, and creates a network interface. Launching from an Amazon EBS-backed AMI creates a volume. Therefore, the user must have permission to use these Amazon EC2 resources. The caller can also configure the instance using optional parameters to Run Instances, such as the instance type and a subnet. You can create a policy statement that requires users to specify an optional parameter, or restricts users to particular values for a parameter. The examples in this section demonstrate some of the many possible ways that you can control the configuration of an instance that a user can launch.

Note that by default, users don't have permission to describe, start, stop, or terminate the resulting instances. One way to grant the users permission to manage the resulting instances is to create a specific tag for each instance, and then create a statement that enables them to manage instances with that tag. For more information, see 2: Working with instances.

a. AMI

The following policy allows users to launch instances using only the AMIs that have the specified tag, "department=dev", associated with them. The users can't launch instances using other AMIs because the Condition element of the first statement requires that users specify an AMI that has this tag. The users also can't launch into a subnet, as the policy does not grant permissions for the subnet and network interface resources. They can, however, launch into EC2-Classic. The second statement uses a wildcard to enable users to create instance resources, and requires users to specify the key pair project_keypair and the security group sg-1a2b3c4d. Users are still able to launch instances without a key pair.

```
{
  "Version": "2012-10-17",
  "Statement": [{
    {
      "Effect": "Allow",
      "Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region::image/ami-*" ],
      "Condition": { "StringEquals": {
        "ec2:ResourceTag/department": "dev" }
      }
    },
    {
      "Effect": "Allow",
      "Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region:account:instance/*", "arn:aws:ec2:region:account:volume/*",
        "arn:aws:ec2:region:account:key-pair/project_keypair",
        "arn :aws :ec2: region: account:security-group/sg-1a 2b3c4d" ]
    }
  ]
}
```

Alternatively, the following policy allows users to launch instances using only the specified AMIs, ami-9e1670f7 and ami-45cf5c3c. The users can't launch an instance using other AMIs (unless another statement grants the users permission to do so), and the users can't launch an instance into a subnet.

```
{
  "Version": "2012-10-17",
  "Statement": [{
    "Effect": "Allow",
    "Action": "ec2:RunInstances", "Resource": [
      "arn:aws:ec2:region::image/ami-9e1670f7", "arn:aws:ec2:region::image/ami-45cf5c3c", "arn:aws:ec2:region:account:instance/*",
      "arn:aws:ec2:region:account:volume/*", "arn:aws:ec2:region:account:key-pair/*", "arn:aws:ec2:region:account:security-group/*"
    ]
  }
}
```

Alternatively, the following policy allows users to launch instances from all AMIs owned by Amazon. The Condition element of the first statement tests whether ec2:Owner is amazon. The users can't launch an instance using other AMIs (unless another statement grants the users permission to do so).

The users are able to launch an instance into a subnet. "Version": "2012-10-17",
"Statement": [{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": ["arn:aws:ec2:region::image/ami-*"],

```
"Condition": { "StringEquals": { "ec2:Owner": "amazon"
}
},
{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region:account:instance/*", "arn:aws:ec2:region:account:subnet/*",
"arn:aws:ec2:region:account:volume/*",
"arn:aws:ec2:region:account:network-interface/*", "arn:aws:ec2:region:account:key-pair/*", "arn:aws:ec2:region:account:security-group/*"
]
}
}
```

b. Instance type

The following policy allows users to launch instances using only the t2.micro or t2.small instance type, which you might do to control costs. The users can't launch larger instances because the Condition element of the first statement tests whether ec2:InstanceType is either t2.micro or t2.small.

```
{
"Version": "2012-10-17",
"Statement": [{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region:account:instance/*" ],
"Condition": { "StringEquals": {
"ec2:InstanceType": ["t2.micro", "t2.small"]
}
}
},
{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region::image/ami-*", "arn:aws:ec2:region:account:subnet/*",
"arn:aws:ec2:region:account:network-interface/*", "arn:aws:ec2:region:account:volume/*", "arn:aws:ec2:region:account:key-pair/*",
"arn:aws:ec2:region:account:security-group/*"
]
}
]
```

Alternatively, you can create a policy that denies users permission to launch any instances except t2.micro and t2.small instance types.

```
{
"Version": "2012-10-17",
"Statement": [{
"Effect": "Deny",
"Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region:account:instance/*" ],
"Condition": { "StringNotEquals": {
"ec2:InstanceType": ["t2.micro", "t2.small"]
}
}
},
{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region::image/ami-*",
"arn:aws:ec2:region:account:network-interface/*", "arn:aws:ec2:region:account:instance/*", "arn:aws:ec2:region:account:subnet/*",
"arn:aws:ec2:region:account:volume/*", "arn:aws:ec2:region:account:key-pair/*", "arn:aws:ec2:region:account:security-group/*"
]
}
}
```

c. Subnet

The following policy allows users to launch instances using only the specified subnet, subnet-12345678. The group can't launch instances into any another subnet (unless another statement grants the users permission to do so). Users are still able to launch instances into EC2-Classic.

```
{
"Version": "2012-10-17",
"Statement": [{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": [
"arn:aws:ec2:region:account:subnet/subnet-12345678",
"arn:aws:ec2:region:account:network-interface/*", "arn:aws:ec2:region:account:instance/*", "arn:aws:ec2:region:account:volume/*",
"arn:aws:ec2:region::image/ami-*", "arn:aws:ec2:region:account:key-pair/*", "arn:aws:ec2:region:account:security-group/*"
]
}
]
```

Alternatively, you could create a policy that denies users permission to launch an instance into any other subnet. The statement does this by denying permission to create a network interface, except where subnet subnet-12345678 is specified. This denial overrides any other policies that are created to allow launching instances into other subnets. Users are still able to launch instances into EC2-Classic.

```
{
"Version": "2012-10-17",
"Statement": [{
"Effect": "Deny",
"Action": "ec2:RunInstances", "Resource": [
"arn:aws:ec2:region:account:network-interface/*" ],
"Condition": { "ArnNotEquals": {
"ec2:Subnet": "arn:aws:ec2:region:account:subnet/subnet-12345678"
}
}
},
{
"Effect": "Allow",
"Action": "ec2:RunInstances", "Resource": [ "arn:aws:ec2:region::image/ami-*",
"arn:aws:ec2:region:account:network-interface/*", "arn:aws:ec2:region:account:instance/*", "arn:aws:ec2:region:account:subnet/*",
"arn:aws:ec2:region:account:volume/*", "arn:aws:ec2:region:account:key-pair/*", "arn:aws:ec2:region:account:security-group/*"
]
}
]
```


}

NEW QUESTION 346

A customer has established an AWS Direct Connect connection to AWS. The link is up and routes are being advertised from the customer's end, however the customer is unable to connect from EC2 instances inside its VPC to servers residing in its datacenter. Which of the following options provide a viable solution to remedy this situation? (Choose 2 answers)

- A. Add a route to the route table with an IPsec VPN connection as the target.
- B. Enable route propagation to the virtual pinnate gateway (VGW).
- C. Enable route propagation to the customer gateway (CGW).
- D. Modify the route table of all Instances using the 'route' command.
- E. Modify the Instances VPC subnet route table by adding a route back to the customer's on-premises environment.

Answer: AC

NEW QUESTION 350

Your company previously configured a heavily used, dynamically routed VPN connection between your on-premises data center and AWS. You recently provisioned a DirectConnect connection and would like to start using the new connection. After configuring DirectConnect settings in the AWS Console, which of the following options win provide the most seamless transition for your users?

- A. Delete your existing VPN connection to avoid routing loops configure your DirectConnect router with the appropriate settings and verity network traffic is leveraging DirectConnect.
- B. Configure your DirectConnect router with a higher 8GP priority man your VPN router, verify network traffic is leveraging Directconnect and then delete your existing VPN connection.
- C. Update your VPC route tables to point to the DirectConnect connection configure your DirectConnect router with the appropriate settings verify network traffic is leveraging DirectConnect and then delete the VPN connection.
- D. Configure your DirectConnect router, update your VPC route tables to point to the DirectConnect connection, configure your VPN connection with a higher BGP point
- E. And verify network traffic is leveraging the DirectConnect connection.

Answer: D

NEW QUESTION 351

You are designing the network infrastructure for an application sewer in Amazon VPC Users will access all the application instances from the Internet as well as from an on-premises network The on-premises network is connected to your VPC over an AWS Direct Connect link. How would you design routing to meet the above requirements?

- A. Configure a single routing Table with a default route via the Internet gateway Propagate a default route via BGP on the AWS Direct Connect customer route
- B. Associate the routing table with all VPC subnets.
- C. Configure a single routing table with a default route via the internet gateway Propagate specific routes for the on-premises networks via BGP on the AWS Direct Connect customer router Associate the routing table with all VPC subnets.
- D. Configure a single routing table with two default routes: one to the inte rnet via an Internet gateway the other to the on-premises network via the VPN gateway use this routing table across all subnets in your VPC,
- E. Configure two routing tables one that has a default route via the Internet gateway and another that has a default route via the VPN gateway Associate both routing tables with each VPC subnet.

Answer: A

NEW QUESTION 352

You've been brought in as solutions architect to assist an enterprise customer with their migration of an e-commerce platform to Amazon Virtual Private Cloud (VPC) The previous architect has already deployed a 3-tier VPC, The configuration is as follows:

VPC: vpc-2f8bc447 IGW: igw-2d8bc445 NACL: ad-208bc448

Subnets and Route Tables: Web sewers: subnet-258bc44d

Application servers: subnet-248bc44c Database sewers: subnet-9189c6f9 Route Tables:

rrb-218bc449 rtb-238bc44b Associations:

subnet-258bc44d : rtb-218bc449 subnet-248bc44c : rtb-238bc44b subnet-9189c6f9 : rtb-238bc44b

You are now ready to begin deploying EC2 instances into the VPC Web servers must have direct access to the internet Application and database sewers cannot have direct access to the internet.

Which configuration below will allow you the ability to remotely administer your application and database servers, as well as allow these sewers to retrieve updates from the Internet?

- A. Create a bastion and NAT instance in subnet-258bc44d, and add a route from rtb- 238bc44b to the NAT instance.
- B. Add a route from rtb-238bc44b to igw-2d8bc445 and add a bastion and NAT instance within subnet-248bc44c.
- C. Create a bastion and NAT instance in subnet-248bc44c, and add a route from rtb- 238bc44b to subneb258bc44d.
- D. Create a bastion and NAT instance in subnet-258bc44d, add a route from rtb-238bc44b to lgw- 2d8bc445, and a new NACL that allows access between subnet-258bc44d and subnet -248bc44c.

Answer: A

NEW QUESTION 357

You are designing Internet connectMty for your VPC. The Web servers must be available on the Internet. The application must have a highly available architecture. Which alternatives should you consider? (Choose 2 answers)

- A. Configure a NAT instance in your VPC Create a default route via the NAT instance and associate it with all subnets Configure a DNS A record that points to the NAT instance public IP address.
- B. Configure a C|oudFront distribution and configure the origin to point to the private IP addresses of your Web sewers Configure a Route53 CNAME record to your Cloud Front distribution.

- C. Place all your web servers behind ELB
- D. Configure a Route53 CNAME to point to the ELB DNS name.
- E. Assign EIPs to all web server
- F. Configure a Route53 record set with all EIP
- G. With health checks and DNS failover.
- H. Configure ELB with an EIP
- I. Place all your Web servers behind ELB
- J. Configure a Route53 A record that points to the EIP.

Answer: CD

NEW QUESTION 359

You are migrating a legacy client-server application to AWS. The application responds to a specific DNS domain (e.g. www.example.com) and has a 2-tier architecture, with multiple application servers and a database server. Remote clients use TCP to connect to the application servers. The application servers need to know the IP address of the clients in order to function properly and are currently taking that information from the TCP socket. A Multi-AZ RDS MySQL instance will be used for the database. During the migration you can change the application code, but you have to file a change request. How would you implement the architecture on AWS in order to maximize scalability and high availability?

- A. File a change request to implement Alias Resource support in the application
- B. Use Route 53 Alias Resource Record to distribute load on two application servers in different AZs.
- C. File a change request to implement Latency Based Routing support in the application
- D. Use Route 53 with Latency Based Routing enabled to distribute load on two application servers in different AZs.
- E. File a change request to implement Cross-Zone support in the application
- F. Use an ELB with a TCP Listener and Cross-Zone Load Balancing enabled, two application servers in different AZs.
- G. File a change request to implement Proxy Protocol support in the application
- H. Use an ELB with a TCP Listener and Proxy Protocol enabled to distribute load on two application servers in different AZs.

Answer: D

NEW QUESTION 361

A newspaper organization has a on-premises application which allows the public to search its back catalogue and retrieve individual newspaper pages via a website written in Java. They have scanned the old newspapers into JPEGs (approx 17TB) and used Optical Character Recognition (OCR) to populate a commercial search product. The hosting platform and software are now end of life and the organization wants to migrate its archive to AWS and produce a cost efficient architecture and still be designed for availability and durability. Which is the most appropriate?

- A. Use S3 with reduced redundancy to store and serve the scanned files, install the commercial search application on EC2 instances and configure with auto-scaling and an Elastic Load Balancer.
- B. Model the environment using CloudFormation, use an EC2 instance running Apache webserver and an open source search application, stripe multiple standard EB5 volumes together to store the JPEGs and search index.
- C. Use S3 with standard redundancy to store and serve the scanned files, use CloudSearch for query processing, and use Elastic Beanstalk to host the website across multiple availability zones.
- D. Use a single-AZ RD5 MySQL instance to store the search index and the JPEG images, use an EC2 instance to serve the website and translate user queries into SQL.
- E. Use a CloudFront download distribution to serve the JPEGs to the end users and install the current commercial search product, along with a Java Container on the website on EC2 instances and use Route53 with DNS round-robin.

Answer: C

Explanation: There is no such thing as "Most appropriate" without knowing all your goals. I find your scenarios very fuzzy, since you can obviously mix-n-match between them. I think you should decide by layers instead: Load Balancer Layer: ELB or just DNS, or roll-your-own. (Using DNS+EIPs is slightly cheaper, but less reliable than ELB.)

Storage Layer for 17TB of Images: This is the perfect use case for S3. Off-load all the web requests directly to the relevant JPEGs in S3. Your EC2 boxes just generate links to them.

If your app already serves its own images (not links to images), you might start with EFS. But more than likely, you can just setup a web server to re-write or re-direct all JPEG links to S3 pretty easily.

If you use S3, don't serve directly from the bucket- Serve via a CNAME in domain you control. That way, you can switch to CloudFront easily.

EBS will be way more expensive, and you'll need 2x the drives if you need 2 boxes. Yuck. Consider a smaller storage format. For example, JPEG200 or WebP or other tools might make for smaller images. There is also the DejaVu format from a while back.

Cache Layer: Adding CloudFront in front of S3 will help people on the other side of the world-- well, possibly. Typical archives follow a power law. The long tail of requests means that most JPEGs won't be requested enough to be in the cache. So you are only speeding up the most popular objects. You can always wait, and switch in CF later after you know your costs better. (In some cases, it can actually lower costs.)

You can also put CloudFront in front of your app, since your archive search results should be fairly static. This will also allow you to run with a smaller instance type, since CF will handle much of the load if you do it right.

Database Layer: A few options:

Use whatever your current server does for now, and replace with something else down the road. Don't under-estimate this approach, sometimes it's better to start now and optimize later.

Use RDS to run MySQL/ Postgres

I'm not as familiar with Elasticsearch or Cloudsearch, but obviously Cloudsearch will be less maintenance+setup.

App Layer:

When creating the app layer from scratch, consider CloudFormation and/or OpsWorks. It's extra stuff to learn, but helps down the road.

Java+ Tomcat is right up the alley of ElasticBeanstalk. (Basically EC2 + Autoscale + ELB).

Preventing Abuse: When you put something in a public S3 bucket, people will hot-link it from their web pages. If you want to prevent that, your app on the EC2 box can generate signed links to S3 that expire in a few hours. Now everyone will be forced to go thru the app, and the app can apply rate limiting, etc. Saving money:

If you don't mind having downtime:

run everything in one AZ (both DBs and EC2s). You can always add servers and AZs down the road, as long as it's architected to be stateless. In fact, you should use multiple regions if you want it to be really robust.

use Reduced Redundancy in S3 to save a few hundred bucks per month (Someone will have to "go fix it" every time it breaks, including having an off-line copy to repair S3.)

Buy Reserved Instances on your EC2 boxes to make them cheaper. (Start with the RI market and buy a partially used one to get started.) It's just a coupon saying "if you run this type of box in this AZ, you will save on the per-hour costs." You can get 1/2 to 1/3 off easily.

Rewrite the application to use less memory and CPU -that way you can run on fewer/ smaller boxes. (May or may not be worth the investment.)

If your app will be used very infrequently, you will save a lot of money by using Lambda. I'd be worried that it would be quite slow if you tried to run a Java application on it though ..

We're missing some information like load, latency expectations from search, indexing speed, size of the search index, etc. But with what you've given us, I would

go with S3 as the storage for the files (S3 rocks. It is really, really awesome). If you're stuck with the commercial search application, then on EC2 instances with autoscaling and an ELB. If you are allowed an alternative search engine, Elasticsearch is probably your best bet. I'd run it on EC2 instead of the AWS Elasticsearch service, as IMHO it's not ready yet. Don't autoscale Elasticsearch automatically though, it'll cause all sorts of issues. I have zero experience with CloudSearch so I can't comment on that. Regardless of which option, I'd use CloudFormation for all of it.

NEW QUESTION 364

A corporate web application is deployed within an Amazon Virtual Private Cloud (VPC) and is connected to the corporate data center via an IPsec VPN. The application must authenticate against the on-premises LDAP server. After authentication, each logged-in user can only access an Amazon Simple Storage Space (S3) keyspace specific to that user.

Which two approaches can satisfy these objectives? (Choose 2 answers)

- A. Develop an identity broker that authenticates against IAM security Token service to assume a Lambda role in order to get temporary AWS security credentials. The application calls the identity broker to get AWS temporary security credentials with access to the appropriate S3 bucket.
- B. The application authenticates against LDAP and retrieves the name of an IAM role associated with the user.
- C. The application then calls the IAM Security Token Service to assume that IAM role. The application can use the temporary credentials to access the appropriate S3 bucket.
- D. Develop an identity broker that authenticates against LDAP and then calls IAM Security Token Service to get IAM federated user credentials. The application calls the identity broker to get IAM federated user credentials with access to the appropriate S3 bucket.
- E. The application authenticates against LDAP. The application then calls the AWS identity and Access Management (IAM) Security service to log in to IAM using the LDAP credentials. The application can use the IAM temporary credentials to access the appropriate S3 bucket.
- F. The application authenticates against IAM Security Token Service using the LDAP credentials. The application uses those temporary AWS security credentials to access the appropriate S3 bucket.

Answer: BC

NEW QUESTION 366

Your company produces customer commissioned one-of-a-kind skiing helmets combining high fashion with custom technical enhancements. Customers can show off their individuality on the ski slopes and have access to head-up-displays, GPS rear-view cams and any other technical innovation they wish to embed in the helmet.

The current manufacturing process is data rich and complex including assessments to ensure that the custom electronics and materials used to assemble the helmets are to the highest standards. Assessments are a mixture of human and automated assessments you need to add a new set of assessment to model the failure modes of the custom electronics using GPUs with CUDA, across a cluster of servers with low latency networking.

What architecture would allow you to automate the existing process using a hybrid approach and ensure that the architecture can support the evolution of processes over time?

- A. Use AWS Data Pipeline to manage movement of data & meta-data and assessments. Use an autoscaling group of G2 instances in a placement group.
- B. Use Amazon Simple Workflow (SWF) to manage assessments, movement of data & meta-data. Use an auto-scaling group of G2 instances in a placement group.
- C. Use Amazon Simple Workflow (SWF) to manage assessments, movement of data & meta-data. Use an auto-scaling group of C3 instances with SR-IOV (Single Root I/O Virtualization).
- D. Use AWS data Pipeline to manage movement of data & meta-data and assessments. Use an autoscaling group of C3 with SR-IOV (Single Root I/O virtualization).

Answer: B

NEW QUESTION 367

An administrator is using Amazon CloudFormation to deploy a three tier web application that consists of a web tier and application tier that will utilize Amazon DynamoDB for storage. When creating the CloudFormation template, which of the following would allow the application instance access to the DynamoDB tables without exposing API credentials?

- A. Create an Identity and Access Management Role that has the required permissions to read and write from the required DynamoDB table and associate the Role to the application instances by referencing an instance profile.
- B. Use the Parameter section in the CloudFormation template to have the user input Access and Secret Keys from an already created IAM user that has the permissions required to read and write from the required DynamoDB table.
- C. Create an Identity and Access Management Role that has the required permissions to read and write from the required DynamoDB table and reference the Role in the instance profile property of the application instance.
- D. Create an identity and Access Management user in the CloudFormation template that has permissions to read and write from the required DynamoDB table, use the GetAtt function to retrieve the Access and secret keys and pass them to the application instance through user-data.

Answer: C

NEW QUESTION 370

Your company has recently extended its datacenter into a VPC on AWS to add burst computing capacity as needed. Members of your Network Operations Center need to be able to go to the AWS Management Console and administer Amazon EC2 instances as necessary. You don't want to create new IAM users for each NOC member and make those users sign in again to the AWS Management Console. Which option below will meet the needs for your NOC members?

- A. Use OAuth 2.0 to retrieve temporary AWS security credentials to enable your NOC members to sign in to the AWS Management Console.
- B. Use web Identity Federation to retrieve AWS temporary security credentials to enable your NOC members to sign in to the AWS Management Console.
- C. Use your on-premises SAML 2.0-compliant identity provider (IDP) to grant the NOC members federated access to the AWS Management Console via the AWS single sign-on (SSO) endpoint.
- D. Use your on-premises SAML 2.0-compliant identity provider (IDP) to retrieve temporary security credentials to enable NOC members to sign in to the AWS Management Console.

Answer: D

NEW QUESTION 373

You are designing a connectivity solution between on-premises infrastructure and Amazon VPC. Your server's on-premises will be communicating with your VPC instances. You will be establishing IPsec tunnels over the internet. You will be using VPN gateways and terminating the IPsec tunnels on AWS supported

customer gateways.

Which of the following objectives would you achieve by implementing an IPSec tunnel as outlined above? (Choose 4 answers)

- A. End-to-end protection of data in transit
- B. End-to-end Identity authentication
- C. Data encryption across the Internet
- D. Protection of data in transit over the Internet
- E. Peer identity authentication between VPN gateway and customer gateway
- F. Data integrity protection across the Internet

Answer: CEF

NEW QUESTION 375

You are designing a photo sharing mobile app the application will store all pictures in a single Amazon S3 bucket.

Users will upload pictures from their mobile device directly to Amazon S3 and will be able to view and download their own pictures directly from Amazon S3.

You want to configure security to handle potentially millions of users in the most secure manner possible. What should your server-side application do when a new user registers on the photo sharing mobile application?

- A. Create a set of long-term credentials using AWS Security Token Service with appropriate permissions Store these credentials in the mobile app and use them to access Amazon S3.
- B. Record the user's Information in Amazon RDS and create a role in IAM with appropriate permission
- C. When the user uses their mobile app create temporary credentials using the AWS Security Token Service 'Assume Role' function Store these credentials in the mobile app's memory and use them to access Amazon S3 Generate new credentials the next time the user runs the mobile app.
- D. Record the user's Information In Amazon DynamoDB
- E. When the user uses their mobile app create temporary credentials using AWS Security Token Service with appropriate permissions Store these credentials in the mobile app's memory and use them to access Amazon S3 Generate new credentials the next time the user runs the mobile app.
- F. Create IAM user
- G. Assign appropriate permissions to the IAM user Generate an access key and secret key for the IAM user, store them in the mobile app and use these credentials to access Amazon S3.
- H. Create an IAM user
- I. Update the bucket policy with appropriate permissions for the IAM user Generate an access Key and secret Key for the IAM user, store them In the mobile app and use these credentials to access Amazon S3.

Answer: B

NEW QUESTION 378

Your fortune 500 company has under taken a TCO analysis evaluating the use of Amazon S3 versus acquiring more hardware The outcome was that all employees would be granted access to use Amazon S3 for storage of their personal documents.

Which of the following will you need to consider so you can set up a solution that incorporates single sign-on from your corporate AD or LDAP directory and restricts access for each user to a designated user folder in a bucket? (Choose 3 Answers)

- A. Setting up a federation proxy or identity provider
- B. Using AWS Security Token Service to generate temporary tokens
- C. Tagging each folder in the bucket
- D. Configuring IAM role
- E. Setting up a matching IAM user for every user in your corporate directory that needs access to a folder in the bucket

Answer: ABD

NEW QUESTION 383

Your company policies require encryption of sensitive data at rest. You are considering the possible options for protecting data while storing it at rest on an EBS data volume, attached to an EC2 instance. Which of these options would allow you to encrypt your data at rest? (Choose 3 answers)

- A. Implement third party volume encryption tools
- B. Do nothing as EBS volumes are encrypted by default
- C. Encrypt data inside your applications before storing it on EBS
- D. Encrypt data using native data encryption drivers at the file system level
- E. Implement SSL/TLS for all services running on the server

Answer: ACD

NEW QUESTION 388

You require the ability to analyze a customer's clickstream data on a website so they can do behavioral analysis. Your customer needs to know what sequence of pages and ads their customer clicked on. This data will be used in real time to modify the page layouts as customers click through the site to increase stickiness and advertising click-through. Which option meets the requirements for capturing and analyzing this data?

- A. Log clicks in weblogs by URL store to Amazon S3, and then analyze with Elastic MapReduce
- B. Push web clicks by session to Amazon Kinesis and analyze behavior using Kinesis workers
- C. Write click events directly to Amazon Redshift and then analyze with SQL
- D. Publish web clicks by session to an Amazon SQS queue then periodically drain these events to Amazon RDS and analyze with SQL

Answer: B

Explanation: Reference: <http://www.slideshare.net/AmazonWebServices/aws-webcast-introduction-to-amazon-kinesis>

NEW QUESTION 393

An AWS customer runs a public blogging website. The site users upload two million blog entries a month. The average blog entry size is 200 KB. The access rate

to blog entries drops to negligible 6 months after publication and users rarely access a blog entry 1 year after publication. Additionally, blog entries have a high update rate during the first 3 months following publication, this drops to no updates after 6 months. The customer wants to use CloudFront to improve his user's load times.

Which of the following recommendations would you make to the customer?

- A. Duplicate entries into two different buckets and create two separate CloudFront distributions where S3 access is restricted only to Cloud Front identity
- B. Create a CloudFront distribution with "US" Europe price class for US/ Europe users and a different CloudFront distribution with All Edge Locations' for the remaining users.
- C. Create a CloudFront distribution with S3 access restricted only to the CloudFront identity and partition the blog entry's location in S3 according to the month it was uploaded to be used with CloudFront behaviors.
- D. Create a CloudFront distribution with Restrict Viewer Access Forward Query string set to true and minimum TTL of 0.

Answer: C

NEW QUESTION 398

Your company is getting ready to do a major public announcement of a social media site on AWS. The website is running on EC2 instances deployed across multiple Availability Zones with a Multi-AZ RDS MySQL Extra Large DB Instance. The site performs a high number of small reads and writes per second and relies on an eventual consistency model. After comprehensive tests you discover that there is read contention on RDS MySQL. Which are the best approaches to meet these requirements? (Choose 2 answers)

- A. Deploy ElasticCache in-memory cache running in each availability zone
- B. Implement sharding to distribute load to multiple RDS MySQL instances
- C. Increase the RDS MySQL Instance size and Implement provisioned IOPS
- D. Add an RDS MySQL read replica in each availability zone

Answer: AC

NEW QUESTION 402

You are implementing a URL whitelisting system for a company that wants to restrict outbound HTTP'S connections to specific domains from their EC2-hosted applications you deploy a single EC2 instance running proxy software and configure it to accept traffic from all subnets and EC2 instances in the VPC. You configure the proxy to only pass through traffic to domains that you define in its whitelist configuration You have a nightly maintenance window of 10 minutes where all instances fetch new software updates. Each update is about 200MB in size and there are 500 instances in the VPC that routinely fetch updates After a few days you notice that some machines are failing to successfully download some, but not all of their updates within the maintenance window. The download URLs used for these updates are correctly listed in the proxy's whitelist configuration and you are able to access them manually using a web browser on the instances. What might be happening? (Choose 2 answers)

- A. You are running the proxy on an undersized EC2 instance type so network throughput is not sufficient for all instances to download their updates in time.
- B. You are running the proxy on a sufficiently-sized EC2 instance in a private subnet and its network throughput is being throttled by a NAT running on an undersized EC2 instance.
- C. The route table for the subnets containing the affected EC2 instances is not configured to direct network traffic for the software update locations to the proxy.
- D. You have not allocated enough storage to the EC2 instance running the proxy so the network buffer is filling up, causing some requests to fail.
- E. You are running the proxy in a public subnet but have not allocated enough EIPs to support the needed network throughput through the Internet Gateway (IGW).

Answer: AB

NEW QUESTION 405

To serve Web traffic for a popular product your chief financial officer and IT director have purchased 10 ml large heavy utilization Reserved Instances (RIs) evenly spread across two availability zones:

Route 53 is used to deliver the traffic to an Elastic Load Balancer (ELB). After several months, the product grows even more popular and you need additional capacity As a result, your company purchases two C3.2xlarge medium utilization RIs You register the two c3 2xlarge instances with your ELB and quickly find that the ml large instances are at 100% of capacity and the c3 2xlarge instances have significant capacity that's unused Which option is the most cost effective and uses EC2 capacity most effectively?

- A. Use a separate ELB for each instance type and distribute load to ELBs with Route 53 weighted round robin
- B. Configure Autoscaling group and Launch Configuration with ELB to add up to 10 more on-demand ml large instances when triggered by Cloudwatch shut off c3 2xlarge instances
- C. Route traffic to EC2 ml large and c3 2xlarge instances directly using Route 53 latency based routing and health checks shut off ELB
- D. Configure ELB with two c3 2xlarge Instances and use on-demand Autoscaling group for up to two additional c3.2xlarge instances Shut on ml .large instances.

Answer: D

NEW QUESTION 409

You are running a news website in the eu-west-1 region that updates every 15 minutes. The website has a world-wide audience it uses an Auto Scaling group behind an Elastic Load Balancer and an

Amazon RDS database Static content resides on Amazon S3, and is distributed through Amazon CloudFront. Your Auto Scaling group is set to trigger a scale up event at 60% CPU utilization, you use an Amazon RDS extra large DB instance with 10,000 Provisioned IOPS its CPU utilization is around 80%. While freeable memory is in the 2GB range.

Web analytics reports show that the average load time of your web pages is around 1.5 to 2 seconds, but your SEO consultant wants to bring down the average load time to under 0.5 seconds.

How would you improve page load times for your users? (Choose 3 answers)

- A. Lower the scale up trigger of your Auto Scaling group to 30% so it scales more aggressively.
- B. Add an Amazon ElastiCache caching layer to your application for storing sessions and frequent DB queries
- C. Configure Amazon CloudFront dynamic content support to enable caching of re-usable content from your site
- D. Switch Amazon RDS database to the high memory extra large Instance type
- E. Set up a second installation in another region, and use the Amazon Route 53 latency-based routing feature to select the right region.

Answer: ABD

NEW QUESTION 411

A company is building a voting system for a popular TV show, viewers will watch the performances then visit the show's website to vote for their favorite performer. It is expected that in a short period of time after the show has finished the site will receive millions of visitors. The visitors will first login to the site using their Amazon.com credentials and then submit their vote. After the voting is completed the page will display the vote totals. The company needs to build the site such that it can handle the rapid influx of traffic while maintaining good performance but also wants to keep costs to a minimum. Which of the design patterns below should they use?

- A. Use CloudFront and an Elastic Load balancer in front of an auto-scaled set of web servers, the web servers will first call the Login With Amazon service to authenticate the user then process the user's vote and store the result into a multi-AZ Relational Database Service instance.
- B. Use CloudFront and the static website hosting feature of S3 with the Javascript SDK to call the Login With Amazon service to authenticate the user, use IAM Roles to gain permissions to a DynamoDB table to store the user's vote.
- C. Use CloudFront and an Elastic Load Balancer in front of an auto-scaled set of web servers, the web servers will first call the Login with Amazon service to authenticate the user, the web servers will process the user's vote and store the result into a DynamoDB table using IAM Roles for EC2 instances to gain permissions to the DynamoDB table.
- D. Use CloudFront and an Elastic Load Balancer in front of an auto-scaled set of web servers, the web servers will first call the Login With Amazon service to authenticate the user, the web servers will process the user's vote and store the result into an SQS queue using IAM Roles for EC2 instances to gain permissions to the SQS queue.
- E. With Amazon service to authenticate the user, the web servers will process the user's vote and store the result into an SQS queue using IAM Roles for EC2 instances to gain permissions to the SQS queue.
- F. A set of application servers will then retrieve the items from the queue and store the result into a DynamoDB table.

Answer: D

NEW QUESTION 412

You are developing a new mobile application and are considering storing user preferences in AWS. This would provide a more uniform cross-device experience to users using multiple mobile devices to access the application. The preference data for each user is estimated to be 50KB in size. Additionally, 5 million customers are expected to use the application on a regular basis. The solution needs to be cost-effective, highly available, scalable and secure, how would you design a solution to meet the above requirements?

- A. Setup an RDS MySQL instance in 2 availability zones to store the user preference data.
- B. Deploy a public-facing application on a server in front of the database to manage security and access credentials.
- C. Setup a DynamoDB table with an item for each user having the necessary attributes to hold the user preference.
- D. The mobile application will query the user preferences directly from the DynamoDB table.
- E. Utilize STS.
- F. Web Identity Federation, and DynamoDB Fine Grained Access Control to authenticate and authorize access.
- G. Setup an RDS MySQL instance with multiple read replicas in 2 availability zones to store the user preference data. The mobile application will query the user preferences from the read replica.
- H. Leverage the MySQL user management and access privilege system to manage security and access credentials.
- I. Store the user preference data in S3. Setup a DynamoDB table with an item for each user and an item attribute pointing to the user's S3 object.
- J. The mobile application will retrieve the S3 URL from DynamoDB and then access the S3 object directly, utilize STS, Web Identity Federation, and S3 ACLs to authenticate and authorize access.

Answer: B

NEW QUESTION 416

Your team has a Tomcat-based Java application you need to deploy into development, test and production environments. After some research, you opt to use Elastic Beanstalk due to its tight integration with your developer tools and RDS due to its ease of management. Your QA team lead points out that you need to roll a sanitized set of production data into your environment on a nightly basis. Similarly, other software teams in your org want access to that same restored data via their EC2 instances in your VPC. The optimal setup for persistence and security that meets the above requirements would be the following.

- A. Create your RDS instance as part of your Elastic Beanstalk definition and alter its security group to allow access to it from hosts in your application subnets.
- B. Create your RDS instance separately and add its IP address to your application's DB connection strings in your code. Alter its security group to allow access to it from hosts within your VPC's IP address block.
- C. Create your RDS instance separately and pass its DNS name to your app's DB connection string as an environment variable.
- D. Create a security group for client machines and add it as a valid source for DB traffic to the security group of the RDS instance itself.
- E. Create your RDS instance separately and pass its DNS name to your app's DB connection string as an environment variable. Alter its security group to allow access to it from hosts in your application subnets.

Answer: A

NEW QUESTION 418

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