



Amazon-Web-Services

Exam Questions SAA-C03

AWS Certified Solutions Architect - Associate (SAA-C03)

NEW QUESTION 1

A company wants to run a gaming application on Amazon EC2 instances that are part of an Auto Scaling group in the AWS Cloud. The application will transmit data by using UDP packets. The company wants to ensure that the application can scale out and in as traffic increases and decreases. What should a solutions architect do to meet these requirements?

- A. Attach a Network Load Balancer to the Auto Scaling group
- B. Attach an Application Load Balancer to the Auto Scaling group.
- C. Deploy an Amazon Route 53 record set with a weighted policy to route traffic appropriately
- D. Deploy a NAT instance that is configured with port forwarding to the EC2 instances in the Auto Scaling group.

Answer: B

NEW QUESTION 2

A company is migrating applications to AWS. The applications are deployed in different accounts. The company manages the accounts centrally by using AWS Organizations. The company's security team needs a single sign-on (SSO) solution across all the company's accounts. The company must continue managing the users and groups in its on-premises self-managed Microsoft Active Directory. Which solution will meet these requirements?

- A. Enable AWS Single Sign-On (AWS SSO) from the AWS SSO console
- B. Create a one-way forest trust or a one-way domain trust to connect the company's self-managed Microsoft Active Directory with AWS SSO by using AWS Directory Service for Microsoft Active Directory.
- C. Enable AWS Single Sign-On (AWS SSO) from the AWS SSO console
- D. Create a two-way forest trust to connect the company's self-managed Microsoft Active Directory with AWS SSO by using AWS Directory Service for Microsoft Active Directory.
- E. Use AWS Directory Service
- F. Create a two-way trust relationship with the company's self-managed Microsoft Active Directory.
- G. Deploy an identity provider (IdP) on premise
- H. Enable AWS Single Sign-On (AWS SSO) from the AWS SSO console.

Answer: A

NEW QUESTION 3

A bicycle sharing company is developing a multi-tier architecture to track the location of its bicycles during peak operating hours. The company wants to use these data points in its existing analytics platform. A solutions architect must determine the most viable multi-tier option to support this architecture. The data points must be accessible from the REST API. Which action meets these requirements for storing and retrieving location data?

- A. Use Amazon Athena with Amazon S3
- B. Use Amazon API Gateway with AWS Lambda
- C. Use Amazon QuickSight with Amazon Redshift.
- D. Use Amazon API Gateway with Amazon Kinesis Data Analytics

Answer: D

Explanation:

Explanation

<https://aws.amazon.com/solutions/implementations/aws-streaming-data-solution-for-amazon-kinesis/>

NEW QUESTION 4

A company wants to migrate its on-premises data center to AWS. According to the company's compliance requirements, the company can use only the ap-northeast-3 Region. Company administrators are not permitted to connect VPCs to the internet. Which solutions will meet these requirements? (Choose two.)

- A. Use AWS Control Tower to implement data residency guardrails to deny internet access and deny access to all AWS Regions except ap-northeast-3.
- B. Use rules in AWS WAF to prevent internet access
- C. Deny access to all AWS Regions except ap-northeast-3 in the AWS account settings.
- D. Use AWS Organizations to configure service control policies (SCPs) that prevent VPCs from gaining internet access
- E. Deny access to all AWS Regions except ap-northeast-3.
- F. Create an outbound rule for the network ACL in each VPC to deny all traffic from 0.0.0.0/0. Create an IAM policy for each user to prevent the use of any AWS Region other than ap-northeast-3.
- G. Use AWS Config to activate managed rules to detect and alert for internet gateways and to detect and alert for new resources deployed outside of ap-northeast-3.

Answer: AC

NEW QUESTION 5

A company hosts a two-tier application on Amazon EC2 instances and Amazon RDS. The application's demand varies based on the time of day. The load is minimal after work hours and on weekends. The EC2 instances run in an EC2 Auto Scaling group that is configured with a minimum of two instances and a maximum of five instances. The application must be available at all times, but the company is concerned about overall cost. Which solution meets the availability requirement MOST cost-effectively?

- A. Use all EC2 Spot Instances
- B. Stop the RDS database when it is not in use.
- C. Purchase EC2 Instance Savings Plans to cover five EC2 instances
- D. Purchase an RDS Reserved DB Instance
- E. Purchase two EC2 Reserved Instances. Use up to three additional EC2 Spot Instances as needed
- F. Stop the RDS database when it is not in use.

- G. Purchase EC2 Instance Savings Plans to cover two EC2 instance
- H. Use up to three additional EC2 On-Demand Instances as needed
- I. Purchase an RDS Reserved DB Instance.

Answer: D

NEW QUESTION 6

A company hosts an application on multiple Amazon EC2 instances. The application processes messages from an Amazon SQS queue, writes to an Amazon RDS table, and deletes the message from the queue. Occasional duplicate records are found in the RDS table. The SQS queue does not contain any duplicate messages.

What should a solutions architect do to ensure messages are being processed once only?

- A. Use the CreateQueue API call to create a new queue
- B. Use the AddPermission API call to add appropriate permissions
- C. Use the ReceiveMessage API call to set an appropriate wait time
- D. Use the ChangeMessageVisibility API call to increase the visibility timeout

Answer: D

Explanation:

Explanation

The visibility timeout begins when Amazon SQS returns a message. During this time, the consumer processes and deletes the message. However, if the consumer fails before deleting the message and your system doesn't call the DeleteMessage action for that message before the visibility timeout expires, the message becomes visible to other consumers and the message is received again. If a message must be received only once, your consumer should delete it within the duration of the visibility timeout. <https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-visibility-timeout.html>

Keyword: SQS queue writes to an Amazon RDS. From this, Option D is the best suite & other Options ruled out [Option A - You can't introduce one more Queue in the existing one; Option B - only Permission & Option C - Only Retrieves Messages] FIFO queues are designed to never introduce duplicate messages. However, your message producer might introduce duplicates in certain scenarios: for example, if the producer sends a message, does not receive a response, and then resends the same message. Amazon SQS APIs provide deduplication functionality that prevents your message producer from sending duplicates. Any duplicates introduced by the message producer are removed within a 5-minute deduplication interval. For standard queues, you might occasionally receive a duplicate copy of a message (at-least- once delivery). If you use a standard queue, you must design your applications to be idempotent (that is, they must not be affected adversely when processing the same message more than once).

NEW QUESTION 7

A company is implementing a shared storage solution for a media application that is hosted in the AWS Cloud. The company needs the ability to use SMB clients to access data. The solution must be fully managed.

Which AWS solution meets these requirements?

- A. Create an AWS Storage Gateway volume gateway
- B. Create a file share that uses the required client protocol. Connect the application server to the file share.
- C. Create an AWS Storage Gateway tape gateway. Configure it to use Amazon S3. Connect the application server to the tape gateway.
- D. Create an Amazon EC2 Windows instance. Install and configure a Windows file share role on the instance.
- E. Connect the application server to the file share.
- F. Create an Amazon FSx for Windows File System. Attach the file system to the origin server. Connect the application server to the file system.

Answer: D

NEW QUESTION 8

A company is hosting a web application on AWS using a single Amazon EC2 instance that stores user-uploaded documents in an Amazon EBS volume. For better scalability and availability, the company

duplicated the architecture and created a second EC2 instance and EBS volume in another Availability

Zone, placing both behind an Application Load Balancer. After completing this change, users reported

that, each time they refreshed the website, they could see one subset of their documents or the

other, but never all of the documents at the same time.

What should a solutions architect propose to ensure users see all of their documents at once?

- A. Copy the data so both EBS volumes contain all the documents.
- B. Configure the Application Load Balancer to direct a user to the server with the documents.
- C. Copy the data from both EBS volumes to Amazon EFS. Modify the application to save new documents to Amazon EFS.
- D. Configure the Application Load Balancer to send the request to both servers. Return each document from the correct server.

Answer: C

Explanation:

Explanation

Amazon EFS provides file storage in the AWS Cloud. With Amazon EFS, you can create a file system, mount the file system on an Amazon EC2 instance, and then read and write data to and from your file system.

You can mount an Amazon EFS file system in your VPC, through the Network File System versions 4.0 and 4.1 (NFSv4) protocol. We recommend using a current generation Linux NFSv4.1 client, such as those found in the latest Amazon Linux, Redhat, and Ubuntu

AMIs, in conjunction with the Amazon EFS Mount Helper. For instructions, see [Using the amazon-efsutils Tools](#).

For a list of Amazon EC2 Linux Amazon Machine Images (AMIs) that support this protocol, see [NFS Support](#). For some AMIs, you'll need to install an NFS client to mount your file system on your Amazon EC2 instance. For instructions, see [Installing the NFS Client](#).

You can access your Amazon EFS file system concurrently from multiple NFS clients, so applications that scale beyond a single connection can access a file system. Amazon EC2 instances running in multiple Availability Zones within the same AWS Region can access the file system, so that many users can access and share a common data source.

NEW QUESTION 9

A company observes an increase in Amazon EC2 costs in its most recent bill

The billing team notices unwanted vertical scaling of instance types for a couple of EC2 instances

A solutions architect needs to create a graph comparing the last 2 months of EC2 costs and perform an in-depth analysis to identify the root cause of the vertical scaling

How should the solutions architect generate the information with the LEAST operational overhead?

- A. Use AWS Budgets to create a budget report and compare EC2 costs based on instance types
- B. Use Cost Explorer's granular filtering feature to perform an in-depth analysis of EC2 costs based on instance types
- C. Use graphs from the AWS Billing and Cost Management dashboard to compare EC2 costs based on instance types for the last 2 months
- D. Use AWS Cost and Usage Reports to create a report and send it to an Amazon S3 bucket Use Amazon QuickSight with Amazon S3 as a source to generate an interactive graph based on instance types.

Answer: B

Explanation:

Explanation

AWS Cost Explorer is a tool that enables you to view and analyze your costs and usage. You can explore your usage and costs using the main graph, the Cost Explorer cost and usage reports, or the Cost Explorer RI reports. You can view data for up to the last 12 months, forecast how much you're likely to spend for the next 12 months, and get recommendations for what Reserved Instances to purchase. You can use Cost Explorer to identify areas that need further inquiry and see trends that you can use to understand your costs. <https://docs.aws.amazon.com/costmanagement/latest/userguide/ce-what-is.html>

NEW QUESTION 10

A company provides a Voice over Internet Protocol (VoIP) service that uses UDP connections. The service consists of Amazon EC2 instances that run in an Auto Scaling group. The company has deployments across multiple AWS Regions.

The company needs to route users to the Region with the lowest latency. The company also needs automated failover between Regions.

Which solution will meet these requirements?

- A. Deploy a Network Load Balancer (NLB) and an associated target group
- B. Associate the target group with the Auto Scaling group
- C. Use the NLB as an AWS Global Accelerator endpoint in each Region.
- D. Deploy an Application Load Balancer (ALB) and an associated target group
- E. Associate the target group with the Auto Scaling group
- F. Use the ALB as an AWS Global Accelerator endpoint in each Region.
- G. Deploy a Network Load Balancer (NLB) and an associated target group
- H. Associate the target group with the Auto Scaling group
- I. Create an Amazon Route 53 latency record that points to aliases for each NL
- J. Create an AmazonCloudFront distribution that uses the latency record as an origin.
- K. Deploy an Application Load Balancer (ALB) and an associated target group
- L. Associate the target group with the Auto Scaling group
- M. Create an Amazon Route 53 weighted record that points to aliases for each AL
- N. Deploy an AmazonCloudFront distribution that uses the weighted record as an origin.

Answer: C

NEW QUESTION 10

A company hosts its multi-tier applications on AWS. For compliance, governance, auditing, and security, the company must track configuration changes on its AWS resources and record a history of API calls made to these resources.

What should a solutions architect do to meet these requirements?

- A. Use AWS CloudTrail to track configuration changes and AWS Config to record API calls
- B. Use AWS Config to track configuration changes and AWS CloudTrail to record API calls
- C. Use AWS Config to track configuration changes and Amazon CloudWatch to record API calls
- D. Use AWS CloudTrail to track configuration changes and Amazon CloudWatch to record API calls

Answer: B

NEW QUESTION 13

A company's application integrates with multiple software-as-a-service (SaaS) sources for data collection. The company runs Amazon EC2 instances to receive the data and to upload the data to an Amazon S3 bucket for analysis. The same EC2 instance that receives and uploads the data also sends a notification to the user when an upload is complete. The company has noticed slow application performance and wants to improve the performance as much as possible.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Create an Auto Scaling group so that EC2 instances can scale out
- B. Configure an S3 event notification to send events to an Amazon Simple Notification Service (Amazon SNS) topic when the upload to the S3 bucket is complete.
- C. Create an Amazon AppFlow flow to transfer data between each SaaS source and the S3 bucket. Configure an S3 event notification to send events to an Amazon Simple Notification Service (Amazon SNS) topic when the upload to the S3 bucket is complete.
- D. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for each SaaS source to send output data
- E. Configure the S3 bucket as the rule's target
- F. Create a second EventBridge (CloudWatch Events) rule to send events when the upload to the S3 bucket is complete
- G. Configure an Amazon Simple Notification Service (Amazon SNS) topic as the second rule's target.
- H. Create a Docker container to use instead of an EC2 instance
- I. Host the containerized application on Amazon Elastic Container Service (Amazon ECS). Configure Amazon CloudWatch Container Insights to send events to an Amazon Simple Notification Service (Amazon SNS) topic when the upload to the S3 bucket is complete.

Answer: B

NEW QUESTION 17

A company runs a highly available image-processing application on Amazon EC2 instances in a single VPC. The EC2 instances run inside several subnets across

multiple Availability Zones. The EC2 instances do not communicate with each other. However, the EC2 instances download images from Amazon S3 and upload images to Amazon S3 through a single NAT gateway. The company is concerned about data transfer charges. What is the MOST cost-effective way for the company to avoid Regional data transfer charges?

- A. Launch the NAT gateway in each Availability Zone
- B. Replace the NAT gateway with a NAT instance
- C. Deploy a gateway VPC endpoint for Amazon S3
- D. Provision an EC2 Dedicated Host to run the EC2 instances

Answer: C

NEW QUESTION 19

A company has an on-premises application that generates a large amount of time-sensitive data that is backed up to Amazon S3. The application has grown and there are user complaints about internet bandwidth limitations. A solutions architect needs to design a long-term solution that allows for both timely backups to Amazon S3 and with minimal impact on internet connectivity for internal users. Which solution meets these requirements?

- A. Establish AWS VPN connections and proxy all traffic through a VPC gateway endpoint
- B. Establish a new AWS Direct Connect connection and direct backup traffic through this new connection.
- C. Order daily AWS Snowball devices. Load the data onto the Snowball devices and return the devices to AWS each day.
- D. Submit a support ticket through the AWS Management Console. Request the removal of S3 service limits from the account.

Answer: B

NEW QUESTION 23

A company has an Amazon S3 bucket that contains critical data. The company must protect the data from accidental deletion. Which combination of steps should a solutions architect take to meet these requirements? (Choose two.)

- A. Enable versioning on the S3 bucket.
- B. Enable MFA Delete on the S3 bucket.
- C. Create a bucket policy on the S3 bucket.
- D. Enable default encryption on the S3 bucket.
- E. Create a lifecycle policy for the objects in the S3 bucket.

Answer: AB

NEW QUESTION 24

A company has a data ingestion workflow that consists of the following:

An Amazon Simple Notification Service (Amazon SNS) topic for notifications about new data deliveries. An AWS Lambda function to process the data and record metadata. The company observes that the ingestion workflow fails occasionally because of network connectivity issues. When such a failure occurs, the Lambda function does not ingest the corresponding data unless the company manually reruns the job.

Which combination of actions should a solutions architect take to ensure that the Lambda function ingests all data in the future? (Select TWO.)

- A. Configure the Lambda function in multiple Availability Zones.
- B. Create an Amazon Simple Queue Service (Amazon SQS) queue, and subscribe it to the SNS topic.
- C. Increase the CPU and memory that are allocated to the Lambda function.
- D. Increase provisioned throughput for the Lambda function.
- E. Modify the Lambda function to read from an Amazon Simple Queue Service (Amazon SQS) queue.

Answer: BE

NEW QUESTION 28

A company is developing an application that provides order shipping statistics for retrieval by a REST API. The company wants to extract the shipping statistics, organize the data into an easy-to-read HTML format, and send the report to several email addresses at the same time every morning.

Which combination of steps should a solutions architect take to meet these requirements? (Choose two.)

- A. Configure the application to send the data to Amazon Kinesis Data Firehose.
- B. Use Amazon Simple Email Service (Amazon SES) to format the data and to send the report by email.
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that invokes an AWS Glue job to query the application's API for the data.
- D. Create an Amazon EventBridge (Amazon CloudWatch Events) scheduled event that invokes an AWS Lambda function to query the application's API for the data.
- E. Store the application data in Amazon S3. Create an Amazon Simple Notification Service (Amazon SNS) topic as an S3 event destination to send the report by

Answer: DE

NEW QUESTION 33

A company wants to migrate its on-premises application to AWS. The application produces output files that vary in size from tens of gigabytes to hundreds of terabytes. The application data must be stored in a standard file system structure.

The company wants a solution that scales automatically, is highly available, and requires minimum operational overhead.

Which solution will meet these requirements?

- A. Migrate the application to run as containers on Amazon Elastic Container Service (Amazon ECS). Use Amazon S3 for storage.
- B. Migrate the application to run as containers on Amazon Elastic Kubernetes Service (Amazon EKS). Use Amazon Elastic Block Store (Amazon EBS) for storage.
- C. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
- D. Use Amazon Elastic File System (Amazon EFS) for storage.
- E. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
- F. Use Amazon Elastic Block Store (Amazon EBS) for storage.

Answer: C

NEW QUESTION 37

A company is preparing to store confidential data in Amazon S3. For compliance reasons, the data must be encrypted at rest. Encryption key usage must be logged for auditing purposes. Keys must be rotated every year.

Which solution meets these requirements and «the MOST operationally efficient?»

- A. Server-side encryption with customer-provided keys (SSE-C)
- B. Server-side encryption with Amazon S3 managed keys (SSE-S3)
- C. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs) with manual rotation
- D. Server-side encryption with AWS KMS (SSE-KMS) customer master keys (CMKs) with automatic rotation

Answer: D

Explanation:

<https://docs.aws.amazon.com/kms/latest/developerguide/rotate-keys.html>

When you enable automatic key rotation for a customer managed key, AWS KMS generates new cryptographic material for the KMS key every year. AWS KMS also saves the KMS key's older cryptographic material in perpetuity so it can be used to decrypt data that the KMS key encrypted.

Key rotation in AWS KMS is a cryptographic best practice that is designed to be transparent and easy to use.

AWS KMS supports optional automatic key rotation only for customer managed CMKs. Enable and disable key rotation. Automatic key rotation is disabled by default on customer managed CMKs. When you enable (or re-enable) key rotation, AWS KMS automatically rotates the CMK 365 days after the enable date and every 365 days thereafter.

NEW QUESTION 40

A company has more than 5 TB of file data on Windows file servers that run on premises. Users and applications interact with the data each day.

The company is moving its Windows workloads to AWS. As the company continues this process, the company requires access to AWS and on-premises file storage with minimum latency. The company needs a solution that minimizes operational overhead and requires no significant changes to the existing file access patterns. The company uses an AWS Site-to-Site VPN connection for connectivity to AWS.

What should a solutions architect do to meet these requirements?

- A. Deploy and configure Amazon FSx for Windows File Server on AWS.
- B. Move the on-premises file data to FSx for Windows File Server.
- C. Reconfigure the workloads to use FSx for Windows File Server on AWS.
- D. Deploy and configure an Amazon S3 File Gateway on premises. Move the on-premises file data to the S3 File Gateway. Reconfigure the on-premises workloads and the cloud workloads to use the S3 File Gateway.
- E. Deploy and configure an Amazon S3 File Gateway on premises. Move the on-premises file data to Amazon S3. Reconfigure the workloads to use either Amazon S3 directly or the S3 File Gateway, depending on each workload's location.
- F. Deploy and configure Amazon FSx for Windows File Server on AWS. Deploy and configure an Amazon FSx File Gateway on premises. Move the on-premises file data to the FSx File Gateway. Configure the cloud workloads to use FSx for Windows File Server on AWS. Configure the on-premises workloads to use the FSx File Gateway.

Answer: D

NEW QUESTION 44

A solutions architect is designing the cloud architecture for a new application being deployed on AWS. The process should run in parallel while adding and removing application nodes as needed based on the number of jobs to be processed. The application is stateless. The solutions architect must ensure that the application is loosely coupled and the job items are durably stored.

Which design should the solutions architect use?

- A. Create an Amazon SNS topic to send the jobs that need to be processed. Create an Amazon Machine Image (AMI) that consists of the processor application. Create a launch configuration that uses the AMI. Create an Auto Scaling group using the launch configuration. Set the scaling policy for the Auto Scaling group to add and remove nodes based on CPU usage.
- B. Create an Amazon SQS queue to hold the jobs that need to be processed. Create an Amazon Machine Image (AMI) that consists of the processor application. Create a launch configuration that uses the AMI. Create an Auto Scaling group using the launch configuration. Set the scaling policy for the Auto Scaling group to add and remove nodes based on network usage.
- C. Create an Amazon SQS queue to hold the jobs that need to be processed. Create an Amazon Machine Image (AMI) that consists of the processor application. Create a launch template that uses the AMI. Create an Auto Scaling group using the launch template. Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of items in the SQS queue.
- D. Create an Amazon SNS topic to send the jobs that need to be processed. Create an Amazon Machine Image (AMI) that consists of the processor application. Create a launch template that uses the AMI. Create an Auto Scaling group using the launch template. Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of messages published to the SNS topic.

Answer: C

Explanation:

"Create an Amazon SQS queue to hold the jobs that need to be processed. Create an Amazon EC2 Auto Scaling group for the compute application. Set the scaling policy for the Auto Scaling group to add and remove nodes based on the number of items in the SQS queue."

In this case, we need to find a durable and loosely coupled solution for storing jobs. Amazon SQS is ideal for this use case and can be configured to use dynamic scaling based on the number of jobs waiting in the queue. To configure this scaling, you can use the backlog per instance metric with the target value being the acceptable backlog per instance to maintain. You can calculate these numbers as follows: Backlog per instance: To calculate your backlog per instance, start with the `ApproximateNumberOfMessages` queue attribute to determine the length of the SQS queue.

NEW QUESTION 46

A company is running a high performance computing (HPC) workload on AWS across many Linux-based Amazon EC2 instances. The company needs a shared storage system that is capable of sub-millisecond latencies, hundreds of Gbps of throughput, and millions of IOPS. Users will store millions of small files.

Which solution meets these requirements?

- A. Create an Amazon Elastic File System (Amazon EFS) file system. Mount the file system on each of the EC2 instances.
- B. Create an Amazon S3 bucket. Mount the S3 bucket on each of the EC2 instances.

- C. Ensure that the EC2 instances ate Amazon Elastic Block Store (Amazon EBS) optimized Mount Provisioned IOPS SSD (io2) EBS volumes with Multi-Attach on each instance
- D. Create an Amazon FSx for Lustre file syste
- E. Mount the file system on each of the EC2 instances

Answer: D

NEW QUESTION 47

A rapidly growing ecommerce company is running its workloads in a single AWS Region. A solutions architect must create a disaster recovery (DR) strategy that includes a different AWS Region. The company wants its database to be up to date in the DR Region with the least possible latency. The remaining infrastructure in the DR Region needs to run at reduced capacity and must be able to scale up if necessary. Which solution will meet these requirements with the LOWEST recovery time objective (RTO)?

- A. Use an Amazon Aurora global database with a pilot light deployment.
- B. Use an Amazon Aurora global database with a warm standby deployment.
- C. Use an Amazon RDS Multi-AZ DB instance with a pilot light deployment.
- D. Use an Amazon RDS Multi-AZ DB instance with a warm standby deployment.

Answer: B

NEW QUESTION 52

A company hosts a serverless application on AWS. The application uses Amazon API Gateway, AWS Lambda, and an Amazon RDS for PostgreSQL database. The company notices an increase in application errors that result from database connection timeouts during times of peak traffic or unpredictable traffic. The company needs a solution that reduces the application failures with the least amount of change to the code. What should a solutions architect do to meet these requirements?

- A. Reduce the Lambda concurrency rate.
- B. Enable RDS Proxy on the RDS DB instance.
- C. Resize the ROS DB instance class to accept more connections.
- D. Migrate the database to Amazon DynamoDB with on-demand scaling

Answer: B

NEW QUESTION 55

A public-facing web application queries a database hosted on a Amazon EC2 instance in a private subnet. A large number of queries involve multiple table joins, and the application performance has been degrading due to an increase in complex queries. The application team will be performing updates to improve performance. What should a solutions architect recommend to the application team? (Select TWO.)

- A. Cache query data in Amazon SQS
- B. Create a read replica to offload queries
- C. Migrate the database to Amazon Athena
- D. Implement Amazon DynamoDB Accelerator to cache data.
- E. Migrate the database to Amazon RDS

Answer: BE

NEW QUESTION 58

An image hosting company uploads its large assets to Amazon S3 Standard buckets. The company uses multipart upload in parallel by using S3 APIs and overwrites if the same object is uploaded again. For the first 30 days after upload, the objects will be accessed frequently. The objects will be used less frequently after 30 days, but the access patterns for each object will be inconsistent. The company must optimize its S3 storage costs while maintaining high availability and resiliency of stored assets. Which combination of actions should a solutions architect recommend to meet these requirements? (Select TWO.)

- A. Move assets to S3 Intelligent-Tiering after 30 days.
- B. Configure an S3 Lifecycle policy to clean up incomplete multipart uploads.
- C. Configure an S3 Lifecycle policy to clean up expired object delete markers.
- D. Move assets to S3 Standard-Infrequent Access (S3 Standard-IA) after 30 days.
- E. Move assets to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 30 days.

Answer: CD

NEW QUESTION 59

A solution architect is creating a new Amazon CloudFront distribution for an application Some of lne information submitted by users is sensitive. The application uses HTTPS but needs another layer" of security The sensitive information should be protected throughout the entire application stack end access to the information should be restricted to certain applications Which action should the solutions architect take?

- A. Configure a CloudFront signed URL
- B. Configure a CloudFront signed cookie.
- C. Configure a CloudFront field-level encryption profile
- D. Configure CloudFront and set the Origin Protocol Policy setting to HTTPS Only for the Viewer Protocol Policy

Answer: C

NEW QUESTION 63

A company has migrated a two-tier application from its on-premises data center to the AWS Cloud The data tier is a Multi-AZ deployment of Amazon RDS for

Oracle with 12 TB of General Purpose SSD Amazon Elastic Block Store (Amazon EBS) storage. The application is designed to process and store documents in the database as binary large objects (blobs) with an average document size of 6 MB. The database size has grown over time, reducing the performance and increasing the cost of storage. The company must improve the database performance and needs a solution that is highly available and resilient. Which solution will meet these requirements MOST cost-effectively?

- A. Reduce the RDS DB instance size. Increase the storage capacity to 24 TiB. Change the storage type to Magnetic.
- B. Increase the RDS DB instance size.
- C. Increase the storage capacity to 24 TiB. Change the storage type to Provisioned IOPS.
- D. Create an Amazon S3 bucket.
- E. Update the application to store documents in the S3 bucket. Store the object metadata in the existing database.
- F. Create an Amazon DynamoDB table.
- G. Update the application to use DynamoDB.
- H. Use AWS Database Migration Service (AWS DMS) to migrate data from the Oracle database to DynamoDB.

Answer: C

NEW QUESTION 65

A company's e-commerce website has unpredictable traffic and uses AWS Lambda functions to directly access a private Amazon RDS for PostgreSQL DB instance. The company wants to maintain predictable database performance and ensure that the Lambda invocations do not overload the database with too many connections.

What should a solutions architect do to meet these requirements?

- A. Point the client driver at an RDS custom endpoint. Deploy the Lambda functions inside a VPC.
- B. Point the client driver at an RDS proxy endpoint. Deploy the Lambda functions inside a VPC.
- C. Point the client driver at an RDS custom endpoint. Deploy the Lambda functions outside a VPC.
- D. Point the client driver at an RDS proxy endpoint. Deploy the Lambda functions outside a VPC.

Answer: B

NEW QUESTION 69

A company is running a critical business application on Amazon EC2 instances behind an Application Load Balancer. The EC2 instances run in an Auto Scaling group and access an Amazon RDS DB instance.

The design did not pass an operational review because the EC2 instances and the DB instance are all located in a single Availability Zone. A solutions architect must update the design to use a second Availability Zone.

Which solution will make the application highly available?

- A. Provision a subnet in each Availability Zone. Configure the Auto Scaling group to distribute the EC2 instances across both Availability Zones. Configure the DB instance with connections to each network.
- B. Provision two subnets that extend across both Availability Zones. Configure the Auto Scaling group to distribute the EC2 instances across both Availability Zones. Configure the DB instance with connections to each network.
- C. Provision a subnet in each Availability Zone. Configure the Auto Scaling group to distribute the EC2 instances across both Availability Zones. Configure the DB instance for Multi-AZ deployment.
- D. Provision a subnet that extends across both Availability Zones. Configure the Auto Scaling group to distribute the EC2 instances across both Availability Zones. Configure the DB instance for Multi-AZ deployment.

Answer: C

NEW QUESTION 72

A company's order system sends requests from clients to Amazon EC2 instances. The EC2 instances process the orders and then store the orders in a database on Amazon RDS. Users report that they must reprocess orders when the system fails. The company wants a resilient solution that can process orders automatically if a system outage occurs.

What should a solutions architect do to meet these requirements?

- A. Move the EC2 instances into an Auto Scaling group.
- B. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to target an Amazon Elastic Container Service (Amazon ECS) task.
- C. Move the EC2 instances into an Auto Scaling group behind an Application Load Balancer (ALB). Update the order system to send messages to the ALB endpoint.
- D. Move the EC2 instances into an Auto Scaling group.
- E. Configure the order system to send messages to an Amazon Simple Queue Service (Amazon SQS) queue.
- F. Configure the EC2 instances to consume messages from the queue.
- G. Create an Amazon Simple Notification Service (Amazon SNS) topic.
- H. Create an AWS Lambda function, and subscribe the function to the SNS topic. Configure the order system to send messages to the SNS topic.
- I. Send a command to the EC2 instances to process the messages by using AWS Systems Manager Run Command.

Answer: C

NEW QUESTION 73

A company is using a SQL database to store movie data that is publicly accessible. The database runs on an Amazon RDS Single-AZ DB instance. A script runs queries at random intervals each day to record the number of new movies that have been added to the database. The script must report a final total during business hours. The company's development team notices that the database performance is inadequate for development tasks when the script is running. A solutions architect must recommend a solution to resolve this issue. Which solution will meet this requirement with the LEAST operational overhead?

- A. Modify the DB instance to be a Multi-AZ deployment.
- B. Create a read replica of the database. Configure the script to query only the read replica.
- C. Instruct the development team to manually export the entries in the database at the end of each day.
- D. Use Amazon ElastiCache to cache the common queries that the script runs against the database.

Answer: B

NEW QUESTION 78

A company has five organizational units (OUS) as part of its organization in AWS Organization. Each OU correlate to the five business that the company owns. The company research and development R&D business is separating from the company and will need its own organization. A solutions architect creates a separate new management account for this purpose.

- A. Have the R&D AWS account be part of both organizations during the transition.
- B. Invite the R&D AWS account to be part of the new organization after the R&D AWS account has left the prior organization.
- C. Create a new R&D AWS account in the new organization
- D. Migrate resources from the period R&D AWS account to the new R&D AWS account
- E. Have the R&D AWS account into the new organization
- F. Make the new management account a member of the prior organization

Answer: B

NEW QUESTION 80

A company needs to store data in Amazon S3 and must prevent the data from being changed. The company wants new objects that are uploaded to Amazon S3 to remain unchangeable for a nonspecific amount of time until the company decides to modify the objects. Only specific users in the company's AWS account can have the ability to delete the objects. What should a solutions architect do to meet these requirements?

- A. Create an S3 Glacier vault Apply a write-once, read-many (WORM) vault lock policy to the objects
- B. Create an S3 bucket with S3 Object Lock enabled Enable versioning Set a retention period of 100 years Use governance mode as the S3 bucket's default retention mode for new objects
- C. Create an S3 bucket Use AWS CloudTrail to track any S3 API events that modify the objects Upon notification, restore the modified objects from any backup versions that the company has
- D. Create an S3 bucket with S3 Object Lock enabled Enable versioning Add a legal hold to the objects Add the s3 PutObjectLegalHold permission to the IAM policies of users who need to delete the objects

Answer: D

NEW QUESTION 81

A company has a web application that is based on Java and PHP. The company wants to move the application from on-premises to AWS. The company needs the ability to test new site features frequently. The company also needs a highly available and managed solution that requires minimum operational overhead. Which solution will meet these requirements?

- A. Create an Amazon S3 bucket Enable static web hosting on the S3 bucket Upload the static content to the S3 bucket Use AWS Lambda to process all dynamic content
- B. Deploy the web application to an AWS Elastic Beanstalk environment Use URL swapping to switch between multiple Elastic Beanstalk environments for feature testing
- C. Deploy the web application to Amazon EC2 instances that are configured with Java and PHP Use Auto Scaling groups and an Application Load Balancer to manage the website's availability.
- D. Containerize the web application Deploy the web application to Amazon EC2 instances Use the AWS Load Balancer Controller to dynamically route traffic between containers that contain the new site features for testing

Answer: D

NEW QUESTION 82

A company is building an ecommerce application and needs to store sensitive customer information. The company needs to give customers the ability to complete purchase transactions on the website. The company also needs to ensure that sensitive customer data is protected, even from database administrators. Which solution meets these requirements?

- A. Store sensitive data in an Amazon Elastic Block Store (Amazon EBS) volume
- B. Use EBS encryption to encrypt the data
- C. Use an IAM instance role to restrict access.
- D. Store sensitive data in Amazon RDS for MySQL
- E. Use AWS Key Management Service (AWS KMS) client-side encryption to encrypt the data.
- F. Store sensitive data in Amazon S3. Use AWS Key Management Service (AWS KMS) service-side encryption the data
- G. Use S3 bucket policies to restrict access.
- H. Store sensitive data in Amazon FSx for Windows Server
- I. Mount the file share on application servers. Use Windows file permissions to restrict access.

Answer: C

NEW QUESTION 87

A company has an application that runs on Amazon EC2 instances and uses an Amazon Aurora database. The EC2 instances connect to the database by using user names and passwords that are stored locally in a file. The company wants to minimize the operational overhead of credential management. What should a solutions architect do to accomplish this goal?

- A. Use AWS Secrets Manager
- B. Turn on automatic rotation.
- C. Use AWS Systems Manager Parameter Store
- D. Turn on automatic rotation
- E. • Create an Amazon S3 bucket to store objects that are encrypted with an AWS Key Management Service (AWS KMS) encryption key
- G. Migrate the credential file to the S3 bucket
- H. Point the application to the S3 bucket.
- I. Create an encrypted Amazon Elastic Block Store (Amazon EBS) volume (on each EC2 instance)
- J. Attach the new EBS volume to each EC2 instance
- K. Migrate the credential file to the new EBS volume
- L. Point the application to the new EBS volume.

Answer: C

NEW QUESTION 91

A hospital recently deployed a RESTful API with Amazon API Gateway and AWS Lambda. The hospital uses API Gateway and Lambda to upload reports that are in PDF format and JPEG format. The hospital needs to modify the Lambda code to identify protected health information (PHI) in the reports. Which solution will meet these requirements with the LEAST operational overhead?

- A. Use existing Python libraries to extract the text from the reports and to identify the PHI from the extracted text.
- B. Use Amazon Textract to extract the text from the reports. Use Amazon SageMaker to identify the PHI from the extracted text.
- C. Use Amazon Textract to extract the text from the reports. Use Amazon Comprehend Medical to identify the PHI from the extracted text.
- D. Use Amazon Rekognition to extract the text from the reports. Use Amazon Comprehend Medical to identify the PHI from the extracted text.

Answer: C

NEW QUESTION 94

A company has an application that loads documents into an Amazon S3 bucket and converts the documents into another format. The application stores the converted documents in another S3 bucket and saves the document name and URLs in an Amazon DynamoDB table. The DynamoDB entries are used during subsequent days to access the documents. The company uses a DynamoDB Accelerator (DAX) cluster in front of the table. Recently, traffic to the application has increased. Document processing tasks are timing out during the scheduled DAX maintenance window. A solutions architect must ensure that the documents continue to load during the maintenance window. What should the solutions architect do to accomplish this goal?

- A. Modify the application to write to the DAX cluster. Configure the DAX cluster to write to the DynamoDB table when the maintenance window is complete.
- B. Enable Amazon DynamoDB Streams for the DynamoDB table.
- C. Modify the application to write to the stream. Configure the stream to load the data when the maintenance window is complete.
- D. Convert the application to an AWS Lambda function. Configure the Lambda function runtime to be longer than the maintenance window. Create an Amazon CloudWatch alarm to monitor Lambda timeouts.
- E. Modify the application to write the document name and URLs to an Amazon Simple Queue Service (Amazon SQS) queue. Create an AWS Lambda function to read the SQS queue and write to DynamoDB.

Answer: C

NEW QUESTION 96

A gaming company hosts a browser-based application on AWS. The users of the application consume a large number of videos and images that are stored in Amazon S3. This content is the same for all users. The application has increased in popularity, and millions of users worldwide are accessing these media files. The company wants to provide the files to the users while reducing the load on the origin. Which solution meets these requirements MOST cost-effectively?

- A. Deploy an AWS Global Accelerator accelerator in front of the web servers.
- B. Deploy an Amazon CloudFront web distribution in front of the S3 bucket.
- C. Deploy an Amazon ElastiCache for Redis instance in front of the web servers.
- D. Deploy an Amazon ElastiCache for Memcached instance in front of the web servers.

Answer: B

Explanation:

CloudFront uses Edge Locations to cache content while Global Accelerator uses Edge Locations to find an optimal pathway to the nearest regional endpoint.

NEW QUESTION 99

A company is running an ASP.NET MVC application on a single Amazon EC2 instance. A recent increase in application traffic is causing slow response times for users during lunch hours. The company needs to resolve this concern with the least amount of configuration. What should a solutions architect recommend to meet these requirements?

- A. Move the application to AWS Elastic Beanstalk.
- B. Configure load-based auto scaling and time-based scaling to handle scaling during lunch hours.
- C. Move the application to Amazon Elastic Container Service (Amazon ECS). Create an AWS Lambda function to handle scaling during lunch hours.
- D. Move the application to Amazon Elastic Container Service (Amazon ECS). Configure scheduled scaling for AWS Application Auto Scaling during lunch hours.
- E. Move the application to AWS Elastic Beanstalk.
- F. Configure load-based auto scaling, and create an AWS Lambda function to handle scaling during lunch hours.

Answer: A

Explanation:

- Scheduled scaling is the solution here, while "using the least amount of settings possible" - Beanstalk vs moving to ECS - ECS requires MORE CONFIGURATION / SETTINGS (task and service definitions, configuring ECS container agent) than Beanstalk (upload application code).
<https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/environments-cfg-autoscaling-scheduledactions.html> Elastic Beanstalk supports time based scaling, since we are aware that the application performance slows down during the lunch hours.
<https://aws.amazon.com/about-aws/whats-new/2015/05/aws-elastic-beanstalk-supports-time-based-scaling/>

NEW QUESTION 100

A company has a web application that runs on Amazon EC2 instances. The company wants end users to authenticate themselves before they use the web application. The web application accesses AWS resources, such as Amazon S3 buckets, on behalf of users who are logged on. Which combination of actions must a solutions architect take to meet these requirements? (Select TWO).

- A. Configure AWS App Mesh to log on users.
- B. Enable and configure AWS Single Sign-On in AWS Identity and Access Management (IAM).
- C. Define a default IAM role for authenticated users.

- D. Use AWS Identity and Access Management (IAM) for user authentication.
- E. Use Amazon Cognito for user authentication.

Answer: BE

NEW QUESTION 103

A company's reporting system delivers hundreds of csv files to an Amazon S3 bucket each day. The company must convert these files to Apache Parquet format and must store the files in a transformed data bucket. Which solution will meet these requirements with the LEAST development effort?

- A. Create an Amazon EMR cluster with Apache Spark installed. Write a Spark application to transform the data. Use EMR File System (EMRFS) to write files to the transformed data bucket.
- B. Create an AWS Glue crawler to discover the data. Create an AWS Glue extract, transform, and load (ETL) job to transform the data. Specify the transformed data bucket in the output step.
- C. Use AWS Batch to create a job definition with Bash syntax to transform the data and output the data to the transformed data bucket. Use the job definition to submit a job. Specify an array job as the job type.
- D. Create an AWS Lambda function to transform the data and output the data to the transformed data bucket.
- E. Configure an event notification for the S3 bucket.
- F. Specify the Lambda function as the destination for the event notification.

Answer: D

NEW QUESTION 104

An ecommerce company has an order-processing application that uses Amazon API Gateway and an AWS Lambda function. The application stores data in an Amazon Aurora PostgreSQL database. During a recent sales event, a sudden surge in customer orders occurred. Some customers experienced timeouts and the application did not process the orders of those customers. A solutions architect determined that the CPU utilization and memory utilization were high on the database because of a large number of open connections. The solutions architect needs to prevent the timeout errors while making the least possible changes to the application. Which solution will meet these requirements?

- A. Configure provisioned concurrency for the Lambda function. Modify the database to be a global database in multiple AWS Regions.
- B. Use Amazon RDS Proxy to create a proxy for the database. Modify the Lambda function to use the RDS Proxy endpoint instead of the database endpoint.
- C. Create a read replica for the database in a different AWS Region. Use query string parameters in API Gateway to route traffic to the read replica.
- D. Migrate the data from Aurora PostgreSQL to Amazon DynamoDB by using AWS Database Migration Service (AWS DMS). Modify the Lambda function to use the DynamoDB table.

Answer: C

NEW QUESTION 108

A company is running several business applications in three separate VPCs within the us-east-1 Region. The applications must be able to communicate between VPCs. The applications also must be able to consistently send hundreds of gigabytes of data each day to a latency-sensitive application that runs in a single on-premises data center. A solutions architect needs to design a network connectivity solution that maximizes cost-effectiveness. Which solution meets those requirements?

- A. Configure three AWS Site-to-Site VPN connections from the data center to AWS. Establish connectivity by configuring one VPN connection for each VPC.
- B. Launch a third-party virtual network appliance in each VPC. Establish an IPsec VPN tunnel between the Data center and each virtual appliance.
- C. Set up three AWS Direct Connect connections from the data center to a Direct Connect gateway in us-east-1. Establish connectivity by configuring each VPC to use one of the Direct Connect connections.
- D. Set up one AWS Direct Connect connection from the data center to AWS.
- E. Create a transit gateway, and attach each VPC to the transit gateway.
- F. Establish connectivity between the Direct Connect connection and the transit gateway.

Answer: C

NEW QUESTION 109

A company has enabled AWS CloudTrail logs to deliver log files to an Amazon S3 bucket for each of its developer accounts. The company has created a central AWS account for streamlining management and audit reviews. An internal auditor needs to access the CloudTrail logs, yet access needs to be restricted for all developer account users. The solution must be secure and optimized. How should a solutions architect meet these requirements?

- A. Configure an AWS Lambda function in each developer account to copy the log files to the central account. Create an IAM role in the central account for the auditor. Attach an IAM policy providing read-only permissions to the bucket.
- B. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account. Create an IAM user in the central account for the auditor. Attach an IAM policy providing full permissions to the bucket.
- C. Configure CloudTrail from each developer account to deliver the log files to an S3 bucket in the central account. Create an IAM role in the central account for the auditor. Attach an IAM policy providing read-only permissions to the bucket.
- D. Configure an AWS Lambda function in the central account to copy the log files from the S3 bucket in each developer account. Create an IAM user in the central account for the auditor. Attach an IAM policy providing full permissions to the bucket.

Answer: C

Explanation:

<https://docs.aws.amazon.com/awsccloudtrail/latest/userguide/cloudtrail-sharing-logs.html>

NEW QUESTION 110

A company hosts an application on AWS. The application uses AWS Lambda functions and stores data in Amazon DynamoDB tables. The Lambda functions are connected to a VPC that does not have internet access. The traffic to access DynamoDB must not travel across the internet. The application must have write access to only specific DynamoDB tables.

Which combination of steps should a solutions architect take to meet these requirements? (Select TWO.)

- A. Attach a VPC endpoint policy for DynamoDB to allow write access to only the specific DynamoDB tables.
- B. Attach a security group to the interface VPC endpoint to allow write access to only the specific DynamoDB tables.
- C. Create a resource-based IAM policy to grant write access to only the specific DynamoDB table
- D. Attach the policy to the DynamoDB tables.
- E. Create a gateway VPC endpoint for DynamoDB that is associated with the Lambda VP
- F. Ensure that the Lambda execution role can access the gateway VPC endpoint.
- G. Create an interface VPC endpoint for DynamoDB that is associated with the Lambda VP
- H. Ensure that the Lambda execution role can access the interface VPC endpoint.

Answer: AD

NEW QUESTION 114

An image-processing company has a web application that users use to upload images. The application uploads the images into an Amazon S3 bucket. The company has set up S3 event notifications to publish the object creation events to an Amazon SQS queue. The SQS queue serves as the event source for an AWS Lambda function that processes the images and sends the results to users through email.

Users report that they are receiving multiple email messages for every uploaded image. A solutions architect determines that SQS messages are invoking the Lambda function more than once, resulting in multiple email messages.

What should the solutions architect do to resolve this issue with the LEAST operational overhead?

- A. Set up long polling in the SQS queue by increasing the ReceiveMessage wait time to 30 seconds.
- B. Change the SQS standard queue to an SQS FIFO queue
- C. Use the message deduplication ID to discard duplicate messages.
- D. Increase the visibility timeout in the SQS queue to a value that is greater than the total of the function timeout and the batch window timeout.
- E. Modify the Lambda function to delete each message from the SQS queue immediately after the message is read before processing.

Answer: B

NEW QUESTION 115

A company needs to move data from an Amazon EC2 instance to an Amazon S3 bucket. The company must ensure that no API calls and no data are routed through public internet routes. Only the EC2 instance can have access to upload data to the S3 bucket.

Which solution will meet these requirements?

- A. Create an interface VPC endpoint for Amazon S3 in the subnet where the EC2 instance is located. Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.
- B. Create a gateway VPC endpoint for Amazon S3 in the Availability Zone where the EC2 instance is located. Attach appropriate security groups to the endpoint. Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.
- C. Run the nslookup tool from inside the EC2 instance to obtain the private IP address of the S3 bucket's service API endpoint. Create a route in the VPC route table to provide the EC2 instance with access to the S3 bucket. Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.
- D. Use the AWS provided publicly available IP ranges JSON file to obtain the private IP address of the S3 bucket's service API endpoint. Create a route in the VPC route table to provide the EC2 instance with access to the S3 bucket. Attach a resource policy to the S3 bucket to only allow the EC2 instance's IAM role for access.

Answer: B

NEW QUESTION 116

A company has chosen to rehost its application on Amazon EC2 instances. The application occasionally experiences errors that affect parts of its functionality. The company was unaware of this issue until users reported the errors. The company wants to address this problem during the migration and reduce the time it takes to detect issues with the application. Log files for the application are stored on the local disk.

A solutions architect needs to design a solution that will alert staff if there are errors in the application after the application is migrated to AWS. The solution must not require additional changes to the application code.

What is the MOST operationally efficient solution that meets these requirements?

- A. Configure the application to generate custom metrics for the errors. Send these metric data points to Amazon CloudWatch by using the PutMetricData API call. Create a CloudWatch alarm that is based on the custom metrics.
- B. CloudWatch by using the PutMetricData API call. Create a CloudWatch alarm that is based on the custom metrics.
- C. Create an hourly cron job on the instances to copy the application log data to an Amazon S3 bucket. Configure an AWS Lambda function to scan the log file and publish a message to an Amazon Simple Notification Service (Amazon SNS) topic to alert staff if errors are detected.
- D. Install the Amazon CloudWatch agent on the instances. Configure the CloudWatch agent to stream the application log file to Amazon CloudWatch Logs. Run a CloudWatch Logs insights query to search for the relevant pattern in the log file. Create a CloudWatch alarm that is based on the query output.
- E. Install the Amazon CloudWatch agent on the instances. Configure the CloudWatch agent to stream the application log file to Amazon CloudWatch Log.
- F. Create a metric filter for the relevant log group.
- G. Define the filter pattern that is required to determine that there are errors in the application. Create a CloudWatch alarm that is based on the resulting metric.

Answer: B

NEW QUESTION 120

A company runs an application that receives data from thousands of geographically dispersed remote devices that use UDP. The application processes the data immediately and sends a message back to the device if necessary. No data is stored.

The company needs a solution that minimizes latency for the data transmission from the devices. The solution also must provide rapid failover to another AWS Region.

Which solution will meet these requirements?

- A. Configure an Amazon Route 53 failover routing policy. Create a Network Load Balancer (NLB) in each of the two Regions. Configure the NLB to invoke an AWS Lambda function to process the data.
- B. Use AWS Global Accelerator. Create a Network Load Balancer (NLB) in each of the two Regions as an endpoint.
- C. Create an Amazon Elastic Container Service (Amazon ECS) cluster with the Fargate launch type. Create an ECS service on the cluster. Set the ECS service as the target for the NLB. Process the data in Amazon ECS.
- D. Use AWS Global Accelerator. Create an Application Load Balancer (ALB) in each of the two Regions as an endpoint. Create an Amazon Elastic Container

Service (Amazon ECS) cluster with the Fargate launch type Create an ECS service on the cluste
E. Set the ECS service as the target for the ALB Process the data in Amazon ECS
F. Configure an Amazon Route 53 failover routing policy Create an Application Load Balancer (ALB) in each of the two Regions Create an Amazon Elastic Container Service (Amazon ECS) cluster with the Fargate launch type Create an ECS service on the cluster Set the ECS service as the target for the ALB Process the data in Amazon ECS

Answer: C

NEW QUESTION 125

A company hosts its web application on AWS using seven Amazon EC2 instances. The company requires that the IP addresses of all healthy EC2 instances be returned in response to DNS queries.
Which policy should be used to meet this requirement?

- A. Simple routing policy
- B. Latency routing policy
- C. Multivalue routing policy
- D. Geolocation routing policy

Answer: C

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/multivalue-versus-simple-policies/>

"Use a multivalue answer routing policy to help distribute DNS responses across multiple resources. For example, use multivalue answer routing when you want to associate your routing records with a Route 53 health check."

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy.html#routing-policy-multivalue>

NEW QUESTION 127

A company wants to build a data lake on AWS from data that is stored in an onpremises Oracle relational database. The data lake must receive ongoing updates from the on-premises database.

Which solution will meet these requirements with the LEAST operational overhead?

- A. Use AWS DataSync to transfer the data to Amazon S3. Use AWS Glue to transform the data and integrate the data into a data lake.
- B. Use AWS Snowball to transfer the data to Amazon S3. Use AWS Batch to transform the data and integrate the data into a data lake.
- C. Use AWS Database Migration Service (AWS DMS) to transfer the data to Amazon S3 Use AWS Glue to transform the data and integrate the data into a data lake.
- D. Use an Amazon EC2 instance to transfer the data to Amazon S3. Configure the EC2 instance to transform the data and integrate the data into a data lake.

Answer: C

NEW QUESTION 130

A gaming company wants to launch a new internet-facing application in multiple AWS Regions. The application will use the TCP and UDP protocols for communication. The company needs to provide high availability and minimum latency for global users.

Which combination of actions should a solutions architect take to meet these requirements? (Select TWO.)

- A. Create internal Network Load Balancers in front of the application in each Region
- B. Create external Application Load Balancers in front of the application in each Region
- C. Create an AWS Global Accelerator accelerator to route traffic to the load balancers in each Region
- D. Configure Amazon Route 53 to use a geolocation routing policy to distribute the traffic
- E. Configure Amazon CloudFront to handle the traffic and route requests to the application in each Region

Answer: AC

NEW QUESTION 135

An online photo application lets users upload photos and perform image editing operations The application offers two classes of service free and paid Photos submitted by paid users are processed before those submitted by free users Photos are uploaded to Amazon S3 and the job information is sent to Amazon SQS. Which configuration should a solutions architect recommend?

- A. Use one SQS FIFO queue Assign a higher priority to the paid photos so they are processed first
- B. Use two SQS FIFO queues: one for paid and one for free Set the free queue to use short polling and the paid queue to use long polling
- C. Use two SQS standard queues one for paid and one for free Configure Amazon EC2 instances to prioritize polling for the paid queue over the free queue.
- D. Use one SQS standard queue
- E. Set the visibility timeout of the paid photos to zero Configure Amazon EC2 instances to prioritize visibility settings so paid photos are processed first

Answer: C

Explanation:

<https://acloud.guru/forums/guru-of-the-week/discussion/-L7Be8rOao3lnQxdQcXj/> <https://aws.amazon.com/sqs/features/>

Priority: Use separate queues to provide prioritization of work. <https://aws.amazon.com/sqs/features/>

<https://aws.amazon.com/sqs/features/#:~:text=Priority%3A%20Use%20separate%20queues%20to%20provide%20>

<https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-short-and-long-polling>.

NEW QUESTION 140

A company is running an application in a private subnet in a VPC win an attached internet gateway The company needs to provide the application access to the internet while restricting public access to the application The company does not want to manage additional infrastructure and wants a solution that is highly available and scalable

Which solution meets these requirements?

- A. Create a NAT gateway in the private subne

- B. Create a route table entry from the private subnet to the internet gateway
- C. Create a NAT gateway in a public subnet Create a route table entry from the private subnet to the NAT gateway
- D. Launch a NAT instance in the private subnet Create a route table entry from the private subnet to the internet gateway
- E. Launch a NAT Instance in a public subnet Create a route table entry from the private subnet to the NAT instance.

Answer: A

NEW QUESTION 143

A company wants to migrate its on-premises application to AWS. The application produces output files that vary in size from tens of gigabytes to hundreds of terabytes. The application data must be stored in a standard file system structure. The company wants a solution that scales automatically, is highly available, and requires minimum operational overhead.

Which solution will meet these requirements?

- A. Migrate the application to run as containers on Amazon Elastic Container Service (Amazon ECS). Use Amazon S3 for storage.
- B. Migrate the application to run as containers on Amazon Elastic Kubernetes Service (Amazon EKS). Use Amazon Elastic Block Store (Amazon EBS) for storage.
- C. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
- D. Use Amazon Elastic File System (Amazon EFS) for storage.
- E. Migrate the application to Amazon EC2 instances in a Multi-AZ Auto Scaling group.
- F. Use Amazon Elastic Block Store (Amazon EBS) for storage.

Answer: C

NEW QUESTION 144

A business's backup data totals 700 terabytes (TB) and is kept in network attached storage (NAS) at its data center. This backup data must be available in the event of occasional regulatory inquiries and preserved for a period of seven years. The organization has chosen to relocate its backup data from its on-premises data center to Amazon Web Services (AWS). Within one month, the migration must be completed. The company's public internet connection provides 500 Mbps of dedicated capacity for data transport.

What should a solutions architect do to ensure that data is migrated and stored at the LOWEST possible cost?

- A. Order AWS Snowball devices to transfer the data.
- B. Use a lifecycle policy to transition the files to Amazon S3 Glacier Deep Archive.
- C. Deploy a VPN connection between the data center and Amazon VPC.
- D. Use the AWS CLI to copy the data from on-premises to Amazon S3 Glacier.
- E. Provision a 500 Mbps AWS Direct Connect connection and transfer the data to Amazon S3. Use a lifecycle policy to transition the files to Amazon S3 Glacier Deep Archive.
- F. Use AWS DataSync to transfer the data and deploy a DataSync agent on-premise.
- G. Use the DataSync task to copy files from the on-premises NAS storage to Amazon S3 Glacier.

Answer: A

NEW QUESTION 145

A company has an AWS Glue extract, transform, and load (ETL) job that runs every day at the same time. The job processes XML data that is in an Amazon S3 bucket.

New data is added to the S3 bucket every day. A solutions architect notices that AWS Glue is processing all the data during each run.

What should the solutions architect do to prevent AWS Glue from reprocessing old data?

- A. Edit the job to use job bookmarks.
- B. Edit the job to delete data after the data is processed.
- C. Edit the job by setting the NumberOfWorkers field to 1.
- D. Use a FindMatches machine learning (ML) transform.

Answer: B

NEW QUESTION 149

A startup company is hosting a website for its customers on an Amazon EC2 instance. The website consists of a stateless Python application and a MySQL database. The website serves only a small amount of traffic. The company is concerned about the reliability of the instance and needs to migrate to a highly available architecture. The company cannot modify the application code.

Which combination of actions should a solution architect take to achieve high availability for the website?

(Select TWO.)

- A. Provision an internet gateway in each Availability Zone in use.
- B. Migrate the database to on Amazon RDS for MySQL Multi-AZ DB instance.
- C. Migrate the database to Amazon DynamoDB, and enable DynamoDB auto scaling.
- D. Use AWS DataSync to synchronize the database data across multiple EC2 instances.
- E. Create an Application Load Balancer to distribute traffic to an Auto Scaling group of EC2 instances that are distributed across two Availability Zones.

Answer: BE

NEW QUESTION 154

To meet security requirements, a company needs to encrypt all of its application data in transit while communicating with an Amazon RDS MySQL DB instance. A recent security audit revealed that encryption at rest is enabled using AWS Key Management Service (AWS KMS), but data in transit is not enabled.

What should a solutions architect do to satisfy the security requirements?

- A. Enable IAM database authentication on the database.
- B. Provide self-signed certificates. Use the certificates in all connections to the RDS instance.
- C. Take a snapshot of the RDS instance. Restore the snapshot to a new instance with encryption enabled.
- D. Download AWS-provided root certificates. Provide the certificates in all connections to the RDS instance.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html#Overview.Encryption>.

NEW QUESTION 158

A company runs its ecommerce application on AWS. Every new order is published as a message in a RabbitMQ queue that runs on an Amazon EC2 instance in a single Availability Zone. These messages are processed by a different application that runs on a separate EC2 instance. This application stores the details in a PostgreSQL database on another EC2 instance. All the EC2 instances are in the same Availability Zone.

The company needs to redesign its architecture to provide the highest availability with the least operational overhead.

What should a solutions architect do to meet these requirements?

- A. Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon M
- B. Create a Multi-AZ Auto Scaling group (or EC2 instances that host the applicatio
- C. Create another Multi-AZ Auto Scaling group for EC2 instances that host the PostgreSQL database.
- D. Migrate the queue to a redundant pair (active/standby) of RabbitMQ instances on Amazon M
- E. Create a Multi-AZ Auto Scaling group for EC2 instances that host the applicatio
- F. Migrate the database to run on a Multi-AZ deployment of Amazon RDS for PostgreSQL.
- G. Create a Multi-AZ Auto Scaling group for EC2 instances that host the RabbitMQ queu
- H. Create another Multi-AZ Auto Scaling group for EC2 instances that host the applicatio
- I. Migrate the database to run on a Multi-AZ deployment of Amazon RDS for PostgreSQL.
- J. Create a Multi-AZ Auto Scaling group for EC2 instances that host the RabbitMQ queu
- K. Create another Multi-AZ Auto Scaling group for EC2 instances that host the applicatio
- L. Create a third Multi-AZ Auto Scaling group for EC2 instances that host the PostgreSQL database.

Answer: C

NEW QUESTION 163

A company wants to direct its users to a backup static error page if the company's primary website is unavailable. The primary website's DNS records are hosted in Amazon Route 53. The domain is pointing to an Application Load Balancer (ALB). The company needs a solution that minimizes changes and infrastructure overhead.

Which solution will meet these requirements?

- A. Update the Route 53 records to use a latency routing polic
- B. Add a static error page that is hosted in an Amazon S3 bucket to the records so that the traffic is sent to the most responsive endpoints.
- C. Set up a Route 53 active-passive failover configuratio
- D. Direct traffic to a static error page that is hosted in an Amazon S3 bucket when Route 53 health checks determine that the ALB endpoint is unhealthy.
- E. Set up a Route 53 active-active configuration with the ALB and an Amazon EC2 instance that hosts a static error page as endpoint
- F. Configure Route 53 to send requests to the instance only if the health checks fail for the ALB.
- G. Update the Route 53 records to use a multivalue answer routing polic
- H. Create a health chec
- I. Direct traffic to the website if the health check passe
- J. Direct traffic to a static error page that is hosted in Amazon S3 if the health check does not pass.

Answer: B

NEW QUESTION 166

The DNS provider that hosts a company's domain name records is experiencing outages that cause service disruption for a website running on AWS. The company needs to migrate to a more resilient managed DNS service and wants the service to run on AWS.

What should a solutions architect do to rapidly migrate the DNS hosting service?

- A. Create an Amazon Route 53 public hosted zone for the domain nam
- B. Import the zone file containing the domain records hosted by the previous provider.
- C. Create an Amazon Route 53 private hosted zone for the domain name. Import the zone file containing the domain records hosted by the previous provider
- D. Create a Simple AD directory in AW
- E. Enable zone transfer between the DNS provider and AWS Directory Service for Microsoft Active Directory for the domain records.
- F. Create an Amazon Route 53 Resolver inbound endpoint in the VPC. Specify the IP addresses that the provider's DNS will forward DNS queries to. Configure the provider's DNS to forward DNS queries for the domain to the IP addresses that are specified in the inbound endpoint.

Answer: B

NEW QUESTION 167

A company is migrating a distributed application to AWS. The application serves variable workloads. The legacy platform consists of a primary server that coordinates jobs across multiple compute nodes. The company wants to modernize the application with a solution that maximizes resiliency and scalability. How should a solutions architect design the architecture to meet these requirements?

- A. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a destination for the jobs. Implement the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group.
- B. Configure EC2 Auto Scaling to use scheduled scaling.
- C. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a destination for the jobs. Implement the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group. Configure EC2 Auto Scaling based on the size of the queue.
- D. Implement the primary server and the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group.
- E. Configure AWS CloudTrail as a destination for the jobs. Configure EC2 Auto Scaling based on the load on the primary server.
- F. Implement the primary server and the compute nodes with Amazon EC2 instances that are managed in an Auto Scaling group. Configure Amazon EventBridge (Amazon CloudWatch Events) as a destination for the jobs. Configure EC2 Auto Scaling based on the load on the compute nodes.

Answer: C

NEW QUESTION 168

A company that recently started using AWS establishes a Site-to-Site VPN between its on-premises data center and AWS. The company's security mandate states that traffic originating from on premises should stay within the company's private IP space when communicating with an Amazon Elastic Container Service (Amazon ECS) cluster that is hosting a sample web application.

Which solution meets this requirement?

- A. Configure a gateway endpoint for Amazon EC
- B. Modify the route table to include an entry pointing to the ECS cluster.
- C. Create a Network Load Balancer and AWS PrivateLink endpoint for Amazon ECS in the same VPC that is hosting the ECS cluster.
- D. Create a Network Load Balancer in one VPC and an AWS PrivateLink endpoint for Amazon ECS in another VP
- E. Connect the two by using VPC peering.
- F. Configure an Amazon Route record with Amazon ECS as the target
- G. Apply a server certificate to Route 53 from AWS Certificate Manager (ACM) for SSL offloading.

Answer: A

NEW QUESTION 170

A company wants to manage Amazon Machine Images (AMIs). The company currently copies AMIs to the same AWS Region where the AMIs were created. The company needs to design an application that captures AWS API calls and sends alerts whenever the Amazon EC2 CreateImage API operation is called within the company's account

Which solution will meet these requirements with the LEAST operational overhead?

- A. Create an AWS Lambda function to query AWS CloudTrail logs and to send an alert when a CreateImage API call is detected
- B. Configure AWS CloudTrail with an Amazon Simple Notification Service (Amazon SNS) notification that occurs when updated logs are sent to Amazon S3 Use Amazon Athena to create a new table and to query on CreateImage when an API call is detected
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for the CreateImage API call Configure the target as an Amazon Simple Notification Service (Amazon SNS) topic to send an alert when a CreateImage API call is detected
- D. Configure an Amazon Simple Queue Service (Amazon SQS) FIFO queue as a target for AWS CloudTrail logs Create an AWS Lambda function to send an alert to an Amazon Simple Notification Service (Amazon SNS) topic when a CreateImage API call is detected

Answer: B

NEW QUESTION 172

A company has deployed a server less application that invokes an AWS Lambda function when new documents are uploaded to an Amazon S3 bucket The application uses the Lambda function to process the documents After a recent marketing campaign the company noticed that the application did not process many of The documents

What should a solutions architect do to improve the architecture of this application?

- A. Set the Lambda function's runtime timeout value to 15 minutes
- B. Configure an S3 bucket replication policy Stage the documents in the S3 bucket for later processing
- C. Deploy an additional Lambda function Load balance the processing of the documents across the two Lambda functions
- D. Create an Amazon Simple Queue Service (Amazon SQS) queue Send the requests to the queue Configure the queue as an event source for Lambda.

Answer: B

NEW QUESTION 176

A company uses NFS to store large video files in on-premises network attached storage. Each video file ranges in size from 1MB to 500 GB. The total storage is 70 TB and is no longer growing. The company decides to migrate the video files to Amazon S3. The company must migrate the video files as soon as possible while using the least possible network bandwidth.

Which solution will meet these requirements?

- A. Create an S3 bucket Create an IAM role that has permissions to write to the S3 bucket
- B. Use the AWS CLI to copy all files locally to the S3 bucket.
- C. Create an AWS Snowball Edge job
- D. Receive a Snowball Edge device on premise
- E. Use the Snowball Edge client to transfer data to the device
- F. Return the device so that AWS can import the data into Amazon S3.
- G. Deploy an S3 File Gateway on premise
- H. Create a public service endpoint to connect to the S3 File Gateway Create an S3 bucket Create a new NFS file share on the S3 File Gateway Point the new file share to the S3 bucket
- I. Transfer the data from the existing NFS file share to the S3 File Gateway.
- J. Set up an AWS Direct Connect connection between the on-premises network and AWS
- K. Deploy an S3 File Gateway on premise
- L. Create a public virtual interface (VIF) to connect to the S3 File Gateway
- M. Create an S3 bucket
- N. Create a new NFS file share on the S3 File Gateway
- O. Point the new file share to the S3 bucket
- P. Transfer the data from the existing NFS file share to the S3 File Gateway.

Answer: C

NEW QUESTION 178

A solutions architect needs to design the architecture for an application that a vendor provides as a Docker container image. The container needs 50 GB of storage.

available for temporary files. The infrastructure must be serverless.

Which solution meets these requirements with the LEAST operational overhead?

- A. Create an AWS Lambda function that uses the Docker container image with an Amazon S3 mounted volume that has more than 50 GB of space.
- B. Create an AWS Lambda function that uses the Docker container image with an Amazon Elastic Block Store (Amazon EBS) volume that has more than 50 GB of

space.

- C. Create an Amazon Elastic Container Service (Amazon ECS) cluster that uses the AWS Fargate launch type
- D. Create a task definition for the container image with an Amazon Elastic File System (Amazon EFS) volume
- E. Create a service with that task definition.
- F. Create an Amazon Elastic Container Service (Amazon ECS) cluster that uses the Amazon EC2 launch type with an Amazon Elastic Block Store (Amazon EBS) volume that has more than 50 GB of space
- G. Create a task definition for the container image
- H. Create a service with that task definition.

Answer: C

NEW QUESTION 180

A company is creating a new application that will store a large amount of data. The data will be analyzed hourly and will be modified by several Amazon EC2 Linux instances that are deployed across multiple Availability Zones. The needed amount of storage space will continue to grow for the next 6 Months. Which storage solution should a solutions architect recommend to meet these requirements?

- A. Store the data in Amazon S3 Glacier Update the S3 Glacier vault policy to allow access to the application instances
- B. Store the data in an Amazon Elastic Block Store (Amazon EBS) volume Mount the EBS volume on the application instances.
- C. Store the data in an Amazon Elastic File System (Amazon EFS) file system Mount the file system on the application instances.
- D. Store the data in an Amazon Elastic Block Store (Amazon EBS) Provisioned IOPS volume shared between the application instances.

Answer: C

NEW QUESTION 183

A company is deploying a new application to Amazon Elastic Kubernetes Service (Amazon EKS) with an AWS Fargate cluster The application needs a storage solution for data persistence The solution must be highly available and fault tolerant The solution also must be shared between multiple application containers Which solution will meet these requirements with the LEAST operational overhead?

- A. Create Amazon Elastic Block Store (Amazon EBS) volumes In the same Availability Zones where EKS worker nodes are placed
- B. Register the volumes in a StorageClass object on an EKS cluster Use EBS Multi-Attach to share the data between containers
- C. Create an Amazon Elastic File System (Amazon EFS) file system Register the file system in a StorageClass object on an EKS cluster Use the same file system for all containers
- D. Create an Amazon Elastic Block Store (Amazon EBS) volume Register the volume in a StorageClass object on an EKS cluster Use the same volume for all containers.
- E. Create Amazon Elastic File System (Amazon EFS) file systems In the same Availability Zones where EKS worker nodes are placed Register the file systems in a StorageClass object on an EKS cluster Create an AWS Lambda function to synchronize the data between file systems

Answer: B

NEW QUESTION 185

A company has a document management application that contains PDF documents The company hosts the application on Amazon EC2 instances According to regulations, the instances must not have access to the internet The application must be able to read and write to a persistent storage system that provides native versioning capabilities

A solutions architect needs to design secure storage that maximizes resiliency and facilitates data sharing across instances Which solution meets these requirements?

- A. Place the instances in a public subnet Use Amazon S3 for storage Access S3 objects by using URLs
- B. Place the instances in a private subnet use Amazon S3 for storage Use a VPC endpoint to access S3 objects
- C. Use the instances with a Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volume.
- D. Use Amazon Elastic File System (Amazon EFS) Standard-Infrequent Access (Standard-IA) to store data and provide shared access to the instances

Answer: B

NEW QUESTION 190

A company stores confidential data in an Amazon Aurora PostgreSQL database in the ap-southeast-3 Region The database is encrypted with an AWS Key Management Service (AWS KMS) customer managed key The company was recently acquired and must securely share a backup of the database with the acquiring company's AWS account in ap-southeast-3.

What should a solutions architect do to meet these requirements?

- A. Create a database snapshot Copy the snapshot to a new unencrypted snapshot Share the new snapshot with the acquiring company's AWS account
- B. Create a database snapshot Add the acquiring company's AWS account to the KMS key policy Share the snapshot with the acquiring company's AWS account
- C. Create a database snapshot that uses a different AWS managed KMS key Add the acquiring company's AWS account to the KMS key alias
- D. Share the snapshot with the acquiring company's AWS account.
- E. Create a database snapshot Download the database snapshot Upload the database snapshot to an Amazon S3 bucket Update the S3 bucket policy to allow access from the acquiring company's AWS account

Answer: A

NEW QUESTION 193

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