Vendor: Amazon

Exam Code:SAA-C03

Exam Name:AWS Certified Solutions Architect - Associate (SAA-C03)

Version: Demo

QUESTION 1

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.

Correct Answer: C

https://docs.aws.amazon.com/AWSEC2/latest/WindowsGuide/monitor-ami-events.html#:~:text=For%20example%2C%20you%20can%20create%20an%20EventBrid ge%20rule%20that%20detects%20when%20the%20AMI%20creation% 20process%20has%20completed%20and%20t hen%20invokes%20an%20Amazon%20SNS%20topic%20to%20send%20an%20email%20notification%20to%20you.

QUESTION 2

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.

Correct Answer: A

QUESTION 3

A solutions architect is creating a new VPC design There are two public subnets for the load balancer, two private subnets for web servers and two private subnets for MySQL The web servers use only HTTPS The solutions architect

has already created a security group tor the load balancer allowing port 443 from 0 0 0 0/0 Company policy requires that each resource has the teas! access required to still be able to perform its tasks

Which additional configuration strategy should the solutions architect use to meet these requirements?

A. Create a security group for the web servers and allow port 443 from 0.0.0.0/0 Create a security group for the MySQL servers and allow port 3306 from the web servers security group

B. Create a network ACL for the web servers and allow port 443 from 0.0.0.0/0 Create a network ACL (or the MySQL servers and allow port 3306 from the web servers security group

C. Create a security group for the web servers and allow port 443 from the load balancer Create a security group for the MySQL servers and allow port 3306 from the web servers security group

D. Create a network ACL \'or the web servers and allow port 443 from the load balancer Create a network ACL for the MySQL servers and allow port 3306 from the web servers security group

Correct Answer: C

Load balancer is public facing accepting all traffic coming towards the VPC (0.0.0.0/0). The web server needs to trust traffic originating from the ALB. The DB will only trust traffic originating from the Web server on port 3306 for Mysql

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QUESTION 4

A company is relocating its data center and wants to securely transfer 50 TB of data to AWS within 2 weeks. The existing data center has a Site-to- Site VPN connection to AWS that is 90% utilized. Which AWS service should a solutions architect use to meet these requirements?

A. AWS DataSync with a VPC endpoint

B. AWS Direct Connect

C. AWS Snowball Edge Storage Optimized

D. AWS Storage Gateway

Correct Answer: C

QUESTION 5

A company hosts a frontend application that uses an Amazon API Gateway API backend that is integrated with AWS Lambda When the API receives requests, the Lambda function loads many libranes Then the Lambda function connects to an Amazon RDS database processes the data and returns the data to the frontend application. The company wants to ensure that response latency is as low as possible for all its users with the fewest number of changes to the company\'s operations

Which solution will meet these requirements\'?

A. Establish a connection between the frontend application and the database to make queries faster by bypassing the API

B. Configure provisioned concurrency for the Lambda function that handles the requests

C. Cache the results of the queries in Amazon S3 for faster retneval of similar datasets.

D. Increase the size of the database to increase the number of connections Lambda can establish at one time

Correct Answer: B

Configure provisioned concurrency for the Lambda function that handles the requests. Provisioned concurrency allows you to set the amount of compute resources that are available to the Lambda function, so that it can handle more requests at once and reduce latency. Caching the results of the queries in Amazon S3 could also help to reduce latency, but it would not be as effective as setting up provisioned concurrency. Increasing the size of the database would not help to reduce latency, as this would not increase the number of connections the Lambda function could establish, and establishing a direct connection between the frontend application and the database would bypass the API, which would not be the best solution either.

Using AWS Lambda with Amazon API Gateway-AWS Lambda https://docs.aws.amazon.com/lambda/latest/dg/services-apigateway.html

AWS Lambda FAQs https://aws.amazon.com/lambda/faqs/

QUESTION 6

A company hosts a three-tier web application that includes a PostgreSQL database. The database stores the metadata from documents. The company searches the metadata for key terms to retrieve documents that the company reviews in a report each month. The documents are stored in Amazon S3. The documents are usually written only once, but they are updated frequently.

The reporting process takes a few hours with the use of relational queries. The reporting process must not prevent any document modifications or the addition of new documents. A solutions architect needs to implement a solution to speed up the reporting process.

Which solution will meet these requirements with the LEAST amount of change to the application code?

A. Set up a new Amazon DocumentDB (with MongoDB compatibility) cluster that includes a read replica. Scale the read replica to generate the reports.

B. Set up a new Amazon Aurora PostgreSQL DB cluster that includes an Aurora Replica. Issue queries to the Aurora Replica to generate the reports.

C. Set up a new Amazon RDS for PostgreSQL Multi-AZ DB instance. Configure the reporting module to query the secondary RDS node so that the reporting module does not affect the primary node.

D. Set up a new Amazon DynamoDB table to store the documents. Use a fixed write capacity to support new document entries. Automatically scale the read capacity to support the reports.

Correct Answer: B

Aurora is a relational database, it supports PostgreSQL and with the help of read replicas we can issue the reporting proccess that take several hours to the replica, therefore not affecting the primary node which can handle new writes or document modifications.

QUESTION 7

A company is designing an application where users upload small files into Amazon S3. After a user uploads a file, the

file requires one-time simple processing to transform the data and save the data in JSON format for later analysis.

Each file must be processed as quickly as possible after it is uploaded. Demand will vary. On some days, users will upload a high number of files. On other days, users will upload a few files or no files.

Which solution meets these requirements with the LEAST operational overhead?

A. Configure Amazon EMR to read text files from Amazon S3. Run processing scripts to transform the data. Store the resulting JSON file in an Amazon Aurora DB cluster.

B. Configure Amazon S3 to send an event notification to an Amazon Simple Queue Service (Amazon SQS) queue. Use Amazon EC2 instances to read from the queue and process the data. Store the resulting JSON file in Amazon DynamoDB.

C. Configure Amazon S3 to send an event notification to an Amazon Simple Queue Service (Amazon SQS) queue. Use an AWS Lambda function to read from the queue and process the data. Store the resulting JSON file in Amazon DynamoDB. Most Voted

D. Configure Amazon EventBridge (Amazon CloudWatch Events) to send an event to Amazon Kinesis Data Streams when a new file is uploaded. Use an AWS Lambda function to consume the event from the stream and process the data. Store the resulting JSON file in Amazon Aurora DB cluster.

Correct Answer: C

Amazon S3 sends event notifications about S3 buckets (for example, object created, object removed, or object restored) to an SNS topic in the same Region.

The SNS topic publishes the event to an SQS queue in the central Region. The SQS queue is configured as the event source for your Lambda function and buffers the event messages for the Lambda function.

The Lambda function polls the SQS queue for messages and processes the Amazon S3 event notifications according to your application\\'s requirements.

https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/subscribe-a-lambda-function-to-event-notifications-from-s3-buckets-in-different-aws-regions.html

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QUESTION 8

A company runs a production database on Amazon RDS for MySQL. The company wants to upgrade the database version for security compliance reasons. Because the database contains critical data, the company wants a quick solution to upgrade and test functionality without losing any data. Which solution will meet these requirements with the LEAST operational overhead?

A. Create an RDS manual snapshot. Upgrade to the new version of Amazon RDS for MySQL.

B. Use native backup and restore. Restore the data to the upgraded new version of Amazon RDS for MySQL.

C. Use AWS Database Migration Service (AWS DMS) to replicate the data to the upgraded new version of Amazon RDS for MySQL.

D. Use Amazon RDS Blue/Green Deployments to deploy and test production changes.

Correct Answer: D

QUESTION 9

A company has a production workload that is spread across different AWS accounts in various AWS Regions. The company uses AWS Cost Explorer to continuously monitor costs and usage. The company wants to receive notifications when the cost and usage spending of the workload is unusual.

Which combination of steps will meet these requirements? (Select TWO.)

A. In the AWS accounts where the production workload is running, create a linked account budget by using Cost Explorer in the AWS Cost Management console

B. In ys AWS accounts where the production workload is running, create a linked account monitor by using AWS Cost Anomaly Detection in the AWS Cost Management console

C. In the AWS accounts where the production workload is running, create a Cost and Usage Report by using Cost Anomaly Detection in the AWS Cost Management console.

D. Create a report and send email messages to notify the company on a weekly basis.

E. Create a subscription with the required threshold and notify the company by using weekly summaries.

Correct Answer: BE

AWS Cost Anomaly Detection allows you to create monitors that track the cost and usage of your AWS resources and alert you when there is an unusual spending pattern. You can create monitors based on different dimensions, such as

AWS services, accounts, tags, or cost categories. You can also create alert subscriptions that notify you by email or Amazon SNS when an anomaly is detected. You can specify the threshold and frequency of the alerts, and choose to

receive weekly summaries of your anomalies.

Reference URLs:

1 https://aws.amazon.com/aws-cost-management/aws-cost-anomaly-detection/ 2 https:// docs.aws.amazon.com/cost-management/latest/userguide/getting-started-ad.html 3 https:// docs.aws.amazon.com/cost-management/latest/userguide/

manage-ad.html

QUESTION 10

An application uses an Amazon RDS MySQL DB instance. The RDS database is becoming low on disk space. A solutions architect wants to increase the disk space without downtime. Which solution meets these requirements with the LEAST amount of effort?

A. Enable storage autoscaling in RDS

B. Increase the RDS database instance size

C. Change the RDS database instance storage type to Provisioned IOPS

D. Back up the RDS database, increase the storage capacity, restore the database, and stop the previous instance

Correct Answer: A

Enabling storage autoscaling allows RDS to automatically adjust the storage capacity based on the application\\'s needs. When the storage usage exceeds a predefined threshold, RDS will automatically increase the allocated storage without requiring manual intervention or causing downtime. This ensures that the RDS database has sufficient disk space to handle the increasing storage requirements.

QUESTION 11

A company runs a shopping application that uses Amazon DynamoDB to store customer information. In case of data corruption, a solutions architect needs to design a solution that meets a recovery point objective (RPO) of 15 minutes and a recovery time objective (RTO) of 1 hour.

What should the solutions architect recommend to meet these requirements?

A. Configure DynamoDB global tables. For RPO recovery, point the application to a different AWS Region.

B. Configure DynamoDB point-in-time recovery. For RPO recovery, restore to the desired point in time.

C. Export the DynamoDB data to Amazon S3 Glacier on a daily basis. For RPO recovery, import the data from S3 Glacier to DynamoDB.

D. Schedule Amazon Elastic Block Store (Amazon EBS) snapshots for the DynamoDB table every 15 minutes. For RPO recovery, restore the DynamoDB table by using the EBS snapshot.

Correct Answer: B

https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/PointInTimeRecov ery.html

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QUESTION 12

A company needs to store contract documents. A contract lasts for 5 years. During the 5-year period, the company must ensure that the documents cannot be overwritten or deleted. The company needs to encrypt the documents at rest and rotate the encryption keys automatically every year.

Which combination of steps should a solutions architect take to meet these requirements with the LEAST operational overhead? (Choose two.)

A. Store the documents in Amazon S3. Use S3 Object Lock in governance mode.

B. Store the documents in Amazon S3. Use S3 Object Lock in compliance mode.

C. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3). Configure key rotation.

D. Use server-side encryption with AWS Key Management Service (AWS KMS) customer managed keys. Configure key rotation.

E. Use server-side encryption with AWS Key Management Service (AWS KMS) customer provided (imported) keys. Configure key rotation.

Correct Answer: BD

Consider using the default aws/s3 KMS key if:

You\\'re uploading or accessing S3 objects using AWS Identity and Access Management (IAM) principals that are in the

same AWS account as the AWS KMS key.

You don\\'t want to manage policies for the KMS key.

Consider using a customer managed key if:

You want to create, rotate, disable, or define access controls for the key.

You want to grant cross-account access to your S3 objects. You can configure the policy of a customer managed key to allow access from another account.

https://repost.aws/knowledge-center/s3-object-encryption-keys