

Amazon-Web-Services

Exam Questions SAA-C03

AWS Certified Solutions Architect - Associate (SAA-C03)



NEW QUESTION 1

A company uses a popular content management system (CMS) for its corporate website. However, the required patching and maintenance are burdensome. The company is redesigning its website and wants a new solution. The website will be updated four times a year and does not need to have any dynamic content available. The solution must provide high scalability and enhanced security.

Which combination of changes will meet these requirements with the LEAST operational overhead? (Choose two.)

- A. Deploy an AWS WAF web ACL in front of the website to provide HTTPS functionality
- B. Create and deploy an AWS Lambda function to manage and serve the website content
- C. Create the new website and an Amazon S3 bucket. Deploy the website on the S3 bucket with static website hosting enabled
- D. Create the new website
- E. Deploy the website by using an Auto Scaling group of Amazon EC2 instances behind an Application Load Balancer.

Answer: AD

NEW QUESTION 2

A company is developing a file-sharing application that will use an Amazon S3 bucket for storage. The company wants to serve all the files through an Amazon CloudFront distribution. The company does not want the files to be accessible through direct navigation to the S3 URL.

What should a solutions architect do to meet these requirements?

- A. Write individual policies for each S3 bucket to grant read permission for only CloudFront access.
- B. Create an IAM user
- C. Grant the user read permission to objects in the S3 bucket
- D. Assign the user to CloudFront.
- E. Write an S3 bucket policy that assigns the CloudFront distribution ID as the Principal and assigns the target S3 bucket as the Amazon Resource Name (ARN).
- F. Create an origin access identity (OAI). Assign the OAI to the CloudFront distribution
- G. Configure the S3 bucket permissions so that only the OAI has read permission.

Answer: D

Explanation:

Explanation

<https://aws.amazon.com/premiumsupport/knowledge-center/cloudfront-access-to-amazon-s3/>

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

NEW QUESTION 3

A development team runs monthly resource-intensive tests on its general purpose Amazon RDS for MySQL DB instance with Performance Insights enabled. The testing lasts for 48 hours once a month and is the only process that uses the database. The team wants to reduce the cost of running the tests without reducing the compute and memory attributes of the DB instance.

Which solution meets these requirements MOST cost-effectively?

- A. Stop the DB instance when tests are complete
- B. Restart the DB instance when required.
- C. Use an Auto Scaling policy with the DB instance to automatically scale when tests are completed.
- D. Create a snapshot when tests are complete
- E. Terminate the DB instance and restore the snapshot when required.
- F. Modify the DB instance to a low-capacity instance when tests are complete
- G. Modify the DB instance again when required.

Answer: C

NEW QUESTION 4

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 5

A company runs its two-tier e-commerce website on AWS. The web tier consists of a load balancer that sends traffic to Amazon EC2 instances. The database tier uses an Amazon RDS DB instance. The EC2 instances and the RDS DB instance should not be exposed to the public internet. The EC2 instances require internet access to complete payment processing of orders through a third-party web service. The application must be highly available.

Which combination of configuration options will meet these requirements? (Choose two.)

- A. Use an Auto Scaling group to launch the EC2 instances in private subnet
- B. Deploy an RDS Multi-AZ DB instance in private subnets.

- C. Configure a VPC with two private subnets and two NAT gateways across two Availability Zones. Deploy an Application Load Balancer in the private subnets.
- D. Use an Auto Scaling group to launch the EC2 instances in public subnets across two Availability Zones. Deploy an RDS Multi-AZ DB instance in private subnets.
- E. Configure a VPC with one public subnet, one private subnet, and two NAT gateways across two Availability Zone
- F. Deploy an Application Load Balancer in the public subnet.
- G. Configure a VPC with two public subnets, two private subnets, and two NAT gateways across two Availability Zone
- H. Deploy an Application Load Balancer in the public subnets.

Answer: AE

Explanation:

Explanation

Before you begin: Decide which two Availability Zones you will use for your EC2 instances. Configure your virtual private cloud (VPC) with at least one public subnet in each of these Availability Zones. These public subnets are used to configure the load balancer. You can launch your EC2 instances in other subnets of these Availability Zones instead.

NEW QUESTION 6

A company maintains a searchable repository of items on its website. The data is stored in an Amazon RDS for MySQL database table that contains more than 10 million rows. The database has 2 TB of General Purpose SSD storage. There are millions of updates against this data every day through the company's website. The company has noticed that some insert operations are taking 10 seconds or longer. The company has determined that the database storage performance is the problem.

Which solution addresses this performance issue?

- A. Change the storage type to Provisioned IOPS SSD
- B. Change the DB instance to a memory optimized instance class
- C. Change the DB instance to a burstable performance instance class
- D. Enable Multi-AZ RDS read replicas with MySQL native asynchronous replication.

Answer: A

Explanation:

Explanation

<https://aws.amazon.com/ebs/features/>

"Provisioned IOPS volumes are backed by solid-state drives (SSDs) and are the highest performance EBS volumes designed for your critical, I/O intensive database applications. These volumes are ideal for both IOPS-intensive and throughput-intensive workloads that require extremely low latency."

NEW QUESTION 7

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: B

NEW QUESTION 8

A company hosts a marketing website in an on-premises data center. The website consists of static documents and runs on a single server. An administrator updates the website content infrequently and uses an SFTP client to upload new documents.

The company decides to host its website on AWS and to use Amazon CloudFront. The company's solutions architect creates a CloudFront distribution. The solutions architect must design the most cost-effective and resilient architecture for website hosting to serve as the CloudFront origin.

Which solution will meet these requirements?

- A. Create a virtual server by using Amazon Lightsail.
- B. Configure the web server in the Lightsail instance. Upload website content by using an SFTP client.
- C. Create an AWS Auto Scaling group for Amazon EC2 instance.
- D. Use an Application Load Balancer. Upload website content by using an SFTP client.
- E. Create a private Amazon S3 bucket.
- F. Use an S3 bucket policy to allow access from a CloudFront origin access identity (OAI). Upload website content by using the AWS CLI.
- G. Create a public Amazon S3 bucket.
- H. Configure AWS Transfer for SFTP.
- I. Configure the S3 bucket for website hosting.
- J. Upload website content by using the SFTP client.

Answer: D

NEW QUESTION 9

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 log
- E. Create an AWS Lambda function to send an alert to an Amazon Simple NotificationService (Amazon SNS) topic when a CreateImage API call is detected.

Answer: B

NEW QUESTION 10

A solutions architect is designing the architecture of a new application being deployed to the AWS Cloud. The application will run on Amazon EC2 On-Demand Instances and will automatically scale across multiple Availability Zones. The EC2 instances will scale up and down frequently throughout the day. An Application Load Balancer (ALB) will handle the load distribution. The architecture needs to support distributed session data management. The company is willing to make changes to code if needed.

What should the solutions architect do to ensure that the architecture supports distributed session data management?

- A. Use Amazon ElastiCache to manage and store session data.
- B. Use session affinity (sticky sessions) of the ALB to manage session data.
- C. Use Session Manager from AWS Systems Manager to manage the session.
- D. Use the GetSessionToken API operation in AWS Security Token Service (AWS STS) to manage the session

Answer: A

Explanation:

Explanation

<https://aws.amazon.com/vi/caching/session-management/>

In order to address scalability and to provide a shared data storage for sessions that can be accessible from any individual web server, you can abstract the HTTP sessions from the web servers themselves. A common solution to for this is to leverage an In-Memory Key/Value store such as Redis and Memcached.

ElastiCache offerings for In-Memory key/value stores include ElastiCache for Redis, which can support replication, and ElastiCache for Memcached which does not support replication.

NEW QUESTION 10

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 Instance
- B. Stop the RDS database when it is not in use.
- C. Purchase EC2 Instance Savings Plans to cover five EC2 instance
- 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 15

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 18

A company hosts a containerized web application on a fleet of on-premises servers that process incoming requests. The number of requests is growing quickly. The on-premises servers cannot handle the increased number of requests. The company wants to move the application to AWS with minimum code changes and

minimum development effort.

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

- A. Use AWS Fargate on Amazon Elastic Container Service (Amazon ECS) to run the containerized web application with Service Auto Scaling
- B. Use an Application Load Balancer to distribute the incoming requests.
- C. Use two Amazon EC2 instances to host the containerized web application
- D. Use an Application Load Balancer to distribute the incoming requests
- E. Use AWS Lambda with a new code that uses one of the supported languages
- F. Create multiple Lambda functions to support the load
- G. Use Amazon API Gateway as an entry point to the Lambda functions.
- H. Use a high performance computing (HPC) solution such as AWS ParallelCluster to establish an HPC cluster that can process the incoming requests at the appropriate scale.

Answer: A

NEW QUESTION 20

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 Server file system. Attach the file system to the origin server. Connect the application server to the file system.

Answer: D

NEW QUESTION 24

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 29

A company needs to review its AWS Cloud deployment to ensure that its Amazon S3 buckets do not have unauthorized configuration changes.

What should a solutions architect do to accomplish this goal?

- A. Turn on AWS Config with the appropriate rules.
- B. Turn on AWS Trusted Advisor with the appropriate checks.
- C. Turn on Amazon Inspector with the appropriate assessment template.
- D. Turn on Amazon S3 server access logging.
- E. Configure Amazon EventBridge (Amazon CloudWatch Events).

Answer: A

NEW QUESTION 30

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 NLB.
- J. Create an Amazon CloudFront 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 34

A company that hosts its web application on AWS wants to ensure all Amazon EC2 instances, Amazon RDS DB instances, and Amazon Redshift clusters are configured with tags. The company wants to minimize the effort of configuring and operating this check. What should a solutions architect do to accomplish this?

- A. Use AWS Config rules to define and detect resources that are not properly tagged.
- B. Use Cost Explorer to display resources that are not properly tagged
- C. Tag those resources manually.
- D. Write API calls to check all resources for proper tag allocation
- E. Periodically run the code on an EC2 instance.
- F. Write API calls to check all resources for proper tag allocation
- G. Schedule an AWS Lambda function through Amazon CloudWatch to periodically run the code.

Answer: A

NEW QUESTION 38

A company runs an online marketplace web application on AWS. The application serves hundreds of thousands of users during peak hours. The company needs a scalable, near-real-time solution to share the details of millions of financial transactions with several other internal applications. Transactions also need to be processed to remove sensitive data before being stored in a document database for low-latency retrieval. What should a solutions architect recommend to meet these requirements?

- A. Store the transactions data into Amazon DynamoDB. Set up a rule in DynamoDB to remove sensitive data from every transaction upon write. Use DynamoDB Streams to share the transactions data with other applications.
- B. Stream the transactions data into Amazon Kinesis Data Firehose to store data in Amazon DynamoDB and Amazon S3. Use AWS Lambda integration with Kinesis Data Firehose to remove sensitive data.
- C. Other applications can consume the data stored in Amazon S3.
- D. Stream the transactions data into Amazon Kinesis Data Streams. Use AWS Lambda integration to remove sensitive data from every transaction and then store the transactions data in Amazon DynamoDB. Other applications can consume the transactions data off the Kinesis data stream.
- E. Store the batched transactions data in Amazon S3 as files.
- F. Use AWS Lambda to process every file and remove sensitive data before updating the files in Amazon S3. The Lambda function then stores the data in Amazon DynamoDB. Other applications can consume transaction files stored in Amazon S3.

Answer: C

Explanation:

Explanation

The destination of your Kinesis Data Firehose delivery stream. Kinesis Data Firehose can send data records to various destinations, including Amazon Simple Storage Service (Amazon S3), Amazon Redshift, Amazon OpenSearch Service, and any HTTP endpoint that is owned by you or any of your third-party service providers. The following are the supported destinations:

- * Amazon OpenSearch Service
- * Amazon S3
- * Datadog
- * Dynatrace
- * Honeycomb
- * HTTP Endpoint
- * Logic Monitor
- * MongoDB Cloud
- * New Relic
- * Splunk
- * Sumo Logic

<https://docs.aws.amazon.com/firehose/latest/dev/create-name.html>

<https://aws.amazon.com/kinesis/data-streams/>

Amazon Kinesis Data Streams (KDS) is a massively scalable and durable real-time data streaming service. KDS can continuously capture gigabytes of data per second from hundreds of thousands of sources such as website clickstreams, database event streams, financial transactions, social media feeds, IT logs, and location-tracking events.

NEW QUESTION 41

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 45

A company is preparing to launch a public-facing web application in the AWS Cloud. The architecture consists of Amazon EC2 instances within a VPC behind an Elastic Load Balancer (ELB). A third-party service is used for the DNS. The company's solutions architect must recommend a solution to detect and protect against large-scale DDoS attacks.

Which solution meets these requirements?

- A. Enable Amazon GuardDuty on the account.
- B. Enable Amazon Inspector on the EC2 instances.
- C. Enable AWS Shield and assign Amazon Route 53 to it.
- D. Enable AWS Shield Advanced and assign the ELB to it.

Answer: D

NEW QUESTION 49

A company is hosting a static website on Amazon S3 and is using Amazon Route 53 for DNS. The website is experiencing increased demand from around the world. The company must decrease latency for users who access the website.

Which solution meets these requirements MOST cost-effectively?

- A. Replicate the S3 bucket that contains the website to all AWS Region
- B. Add Route 53 geolocation routing entries.
- C. Provision accelerators in AWS Global Accelerator
- D. Associate the supplied IP addresses with the S3 bucket
- E. Edit the Route 53 entries to point to the IP addresses of the accelerators.
- F. Add an Amazon CloudFront distribution in front of the S3 bucket
- G. Edit the Route 53 entries to point to the CloudFront distribution.
- H. Enable S3 Transfer Acceleration on the bucket
- I. Edit the Route 53 entries to point to the new endpoint.

Answer: C

NEW QUESTION 54

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 59

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 62

A company has an application that provides marketing services to stores. The services are based on previous purchases by store customers. The stores upload transaction data to the company through SFTP, and the data is processed and analyzed to generate new marketing offers. Some of the files can exceed 200 GB in size.

Recently, the company discovered that some of the stores have uploaded files that contain personally identifiable information (PII) that should not have been included. The company wants administrators to be alerted if PII is shared again.

The company also wants to automate remediation.

What should a solutions architect do to meet these requirements with the LEAST development effort?

- A. Use an Amazon S3 bucket as a secure transfer point
- B. Use Amazon Inspector to scan the objects in the bucket
- C. If objects contain PII
- D. Trigger an S3 Lifecycle policy to remove the objects that contain PII.
- E. Use an Amazon S3 bucket as a secure transfer point
- F. Use Amazon Macie to scan the objects in the bucket
- G. If objects contain PII
- H. Use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects that contain PII.
- I. Implement custom scanning algorithms in an AWS Lambda function
- J. Trigger the function when objects are loaded into the bucket
- K. If objects contain PII
- L. Use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects that contain PII.
- M. Implement custom scanning algorithms in an AWS Lambda function
- N. Trigger the function when objects are loaded into the bucket
- O. If objects contain PII
- P. Use Amazon Simple Email Service (Amazon SES) to trigger a notification to the administrators and trigger an S3 Lifecycle policy to remove the objects that contain PII.

Answer: B

NEW QUESTION 63

A company's website uses an Amazon EC2 instance store for its catalog of items. The company wants to make sure that the catalog is highly available and that the catalog is stored in a durable location.

What should a solutions architect do to meet these requirements?

- A. Move the catalog to Amazon ElastiCache for Redis.
- B. Deploy a larger EC2 instance with a larger instance store.
- C. Move the catalog from the instance store to Amazon S3 Glacier Deep Archive.
- D. Move the catalog to an Amazon Elastic File System (Amazon EFS) file system.

Answer: A

NEW QUESTION 67

A company needs to store its accounting records in Amazon S3. The records must be immediately accessible for 1 year and then must be archived for an additional 9 years. No one at the company, including administrative users and root users, can be able to delete the records during the entire 10-year period. The records must be stored with maximum resiliency.

Which solution will meet these requirements?

- A. Store the records in S3 Glacier for the entire 10-year period.
- B. Use an access control policy to deny deletion of the records for a period of 10 years.
- C. Store the records by using S3 Intelligent-Tiering.
- D. Use an IAM policy to deny deletion of the records. After 10 years, change the IAM policy to allow deletion.
- E. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 Glacier Deep Archive after 1 year.
- F. Use S3 Object Lock in compliance mode for a period of 10 years.
- G. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 1 year.
- H. Use S3 Object Lock in governance mode for a period of 10 years.

Answer: C

NEW QUESTION 69

A company needs to keep user transaction data in an Amazon DynamoDB table. The company must retain the data for 7 years.

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

- A. Use DynamoDB point-in-time recovery to back up the table continuously.
- B. Use AWS Backup to create backup schedules and retention policies for the table.
- C. Create an on-demand backup of the table by using the DynamoDB console.
- D. Store the backup in an Amazon S3 bucket.
- E. Set an S3 Lifecycle configuration for the S3 bucket.
- F. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to invoke an AWS Lambda function.
- G. Configure the Lambda function to back up the table and to store the backup in an Amazon S3 bucket.
- H. Set an S3 Lifecycle configuration for the S3 bucket.

Answer: C

NEW QUESTION 70

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 71

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 processor 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 needs 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 needs 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 73

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 me 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 76

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 77

A company is planning to build a high performance computing (HPC) workload as a service solution that is hosted on AWS A group of 16 AmazonEC2Linux Instances requires the lowest possible latency for node-to-node communication. The instances also need a shared block device volume for high-performing storage. Which solution will meet these requirements?

- A. Use a duster placement grou
- B. Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon E BS) volume to all the instances by using Amazon EBS Multi-Attach
- C. Use a cluster placement group
- D. Create shared 'lie systems across the instances by using Amazon Elastic File System (Amazon EFS)
- E. Use a partition placement group
- F. Create shared tile systems across the instances by using Amazon Elastic File System (Amazon EFS).
- G. Use a spread placement group
- H. Attach a single Provisioned IOPS SSD Amazon Elastic Block Store (Amazon EBS) volume to all the instances by using Amazon EBS Multi-Attach

Answer: A

NEW QUESTION 79

A company wants to use the AWS Cloud to make an existing application highly available and resilient. The current version of the application resides in the company's data center. The application recently experienced data loss after a database server crashed because of an unexpected power outage. The company needs a solution that avoids any single points of failure. The solution must give the application the ability to scale to meet user demand. Which solution will meet these requirements?

- A. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zone
- B. Use an Amazon RDS DB instance in a Multi-AZ configuration.
- C. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group in a single Availability Zon
- D. Deploy the database on an EC2 instanc
- E. Enable EC2 Auto Recovery.
- F. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zone
- G. Use an Amazon RDS DB instance with a read replica in a single Availability Zon
- H. Promote the read replica to replace the primary DB instance if the primary DB instance fails.
- I. Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones Deploy the primary and secondary database servers on EC2 instances across multiple Availability Zones Use Amazon Elastic Block Store (Amazon EBS) Multi-Attach to create shared storage between the instances.

Answer: A

NEW QUESTION 82

A company is storing sensitive user information in an Amazon S3 bucket. The company wants to provide secure access to this bucket from the application tier running on Amazon EC2 instances inside a VPC.

Which combination of steps should a solutions architect take to accomplish this? (Select TWO.)

- A. Configure a VPC gateway endpoint (or Amazon S3 within the VPC)
- B. Create a bucket policy to make the objects in the S3 bucket public
- C. Create a bucket policy that limits access to only the application tier running in the VPC
- D. Create an IAM user with an S3 access policy and copy the IAM credentials to the EC2 instance
- E. Create a NAT instance and have the EC2 instances use the NAT instance to access the S3 bucket

Answer: BD

NEW QUESTION 83

A company is implementing a new business application. The application runs on two Amazon EC2 instances and uses an Amazon S3 bucket for document storage. A solutions architect needs to ensure that the EC2 instances can access the S3 bucket.

What should the solutions architect do to meet this requirement?

- A. Create an IAM role that grants access to the S3 bucket. Attach the role to the EC2 instances.
- B. Attach the role to the EC2 instances.
- C. Create an IAM policy that grants access to the S3 bucket. Attach the policy to the EC2 instances.
- D. Create an IAM group that grants access to the S3 bucket. Attach the group to the EC2 instances.
- E. Create an IAM user that grants access to the S3 bucket. Attach the user account to the EC2 instances.

Answer: C

NEW QUESTION 86

A solution architect is creating a new Amazon CloudFront distribution for an application. Some of the 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. 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 89

A company uses Amazon EC2 instances to host its internal systems. As part of a deployment operation, an administrator tries to use the AWS CLI to terminate an EC2 instance. However, the administrator receives a 403 (Access Denied) error message.

The administrator is using an IAM role that has the following IAM policy attached:

What is the cause of the unsuccessful request?

- A. The EC2 instance has a resource-based policy with a Deny statement.
- B. The principal has not been specified in the policy statement.
- C. The "Action" field does not grant the actions that are required to terminate the EC2 instance.
- D. The request to terminate the EC2 instance does not originate from the CIDR blocks 192.0.2.0/24 or 203.0.113.0/24.

Answer: B

NEW QUESTION 93

A gaming company has a web application that displays scores. The application runs on Amazon EC2 instances behind an Application Load Balancer. The application stores data in an Amazon RDS for MySQL database. Users are starting to experience long delays and interruptions that are caused by database read performance. The company wants to improve the user experience while minimizing changes to the application's architecture.

What should a solutions architect do to meet these requirements?

- A. Use Amazon ElastiCache in front of the database.
- B. Use RDS Proxy between the application and the database.
- C. Migrate the application from EC2 instances to AWS Lambda.
- D. Migrate the database from Amazon RDS for MySQL to Amazon DynamoDB.

Answer: C

NEW QUESTION 95

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 99

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 103

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 106

A company has a web-based map application that provides status information about ongoing repairs. The application sometimes has millions of users. Repair teams have a mobile app that sends current location and status in a JSON message to a REST-based endpoint. Few repairs occur on most days. The company wants the application to be highly available and to scale when large numbers of repairs occur after natural disasters. Customer use the application most often during these times. The company does not want to pay for idle capacity.

- A. Create a webpage that is based on Amazon S3 to display information.
- B. Use Amazon API Gateway and AWS Lambda to receive the JSON status data. Store the JSON data in Amazon S3.
- C. Use Amazon EC2 instances as web servers across multiple Availability Zones.
- D. Run the EC2 instances in an Auto Scaling group.
- E. Use Amazon API Gateway and AWS Lambda to receive the JSON status data. Store the JSON data in Amazon S3.
- F. Use Amazon EC2 instances as web servers across multiple Availability Zones.
- G. Run the EC2 instances in an Auto Scaling group.
- H. Use a REST endpoint on the EC2 instances to receive the JSON status data.
- I. Store the JSON data in an Amazon RDS Multi-AZ DB instance.
- J. Use Amazon EC2 instances as web servers across multiple Availability Zones. Run the EC2 instances in an Auto Scaling group. Use a REST endpoint on the EC2 instances to receive the JSON status data. Store the JSON data in an Amazon DynamoDB table.

Answer: D

NEW QUESTION 108

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 109

A company runs multiple Windows workloads on AWS. The company's employees use Windows file shares that are hosted on two Amazon EC2 instances. The file shares synchronize data between themselves and maintain duplicate copies. The company wants a highly available and durable storage solution that preserves how users currently access the files.

- A. Migrate all the data to Amazon S3. Set up IAM authentication for users to access files.

- B. Set up an Amazon S3 File Gateway
- C. Mount the S3 File Gateway on the existing EC2 Instances.
- D. Extend the file share environment to Amazon FSx for Windows File Server with a Multi-AZ configuration
- E. Migrate all the data to FSx for Windows File Server.
- F. Extend the file share environment to Amazon Elastic File System (Amazon EFS) with a Multi-AZ configuration
- G. Migrate all the data to Amazon EFS.

Answer: C

NEW QUESTION 112

A company's web application consists of an Amazon API Gateway API in front of an AWS Lambda function and an Amazon DynamoDB database. The Lambda function handles the business logic, and the DynamoDB table hosts the data. The application uses Amazon Cognito user pools to identify the individual users of the application. A solutions architect needs to update the application so that only users who have a subscription can access premium content.

- A. Enable API caching and throttling on the API Gateway API
- B. Set up AWS WAF on the API Gateway API Create a rule to filter users who have a subscription
- C. Apply fine-grained IAM permissions to the premium content in the DynamoDB table
- D. Implement API usage plans and API keys to limit the access of users who do not have a subscription.

Answer: C

NEW QUESTION 114

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 117

A company is experiencing sudden increases in demand. The company needs to provision large Amazon EC2 instances from an Amazon Machine image (AMI). The instances will run in an Auto Scaling group. The company needs a solution that provides minimum initialization latency to meet the demand. Which solution meets these requirements?

- A. Use the `aws ec2 register-image` command to create an AMI from a snapshot Use AWS Step Functions to replace the AMI in the Auto Scaling group
- B. Enable Amazon Elastic Block Store (Amazon EBS) fast snapshot restore on a snapshot Provision an AMI by using the snapshot Replace the AMI in the Auto Scaling group with the new AMI
- C. Enable AMI creation and define lifecycle rules in Amazon Data Lifecycle Manager (Amazon DLM) Create an AWS Lambda function that modifies the AMI in the Auto Scaling group
- D. Use Amazon EventBridge (Amazon CloudWatch Events) to invoke AWS Backup lifecycle policies that provision AMIs Configure Auto Scaling group capacity limits as an event source in EventBridge (CloudWatch Events)

Answer: B

NEW QUESTION 120

A company runs a high performance computing (HPC) workload on AWS. The workload required low-latency network performance and high network throughput with tightly coupled node-to-node communication. The Amazon EC2 instances are properly sized for compute and storage capacity, and are launched using default options.

What should a solutions architect propose to improve the performance of the workload?

- A. Choose a cluster placement group while launching Amazon EC2 instances.
- B. Choose dedicated instance tenancy while launching Amazon EC2 instances.
- C. Choose an Elastic Inference accelerator while launching Amazon EC2 instances.
- D. Choose the required capacity reservation while launching Amazon EC2 instances.

Answer: A

Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-ec2-placementgroup.html> "A cluster placement group is a logical grouping of instances within a single Availability Zone that benefit from low network latency, high network throughput"

NEW QUESTION 124

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
- F. 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 128

A company uses an Amazon Aurora PostgreSQL DB cluster to store its critical data in the us-east-1 Region. The company wants to develop a disaster recovery plan to recover the database in the us-west-1 Region. The company has a recovery time objective (RTO) of 5 minutes and has a recovery point objective (RPO) of 1 minute.

What should a solutions architect do to meet these requirements?

- A. Create a read replica in us-west-1. Set the DB cluster to automatically fail over to the read replica if the primary instance is not responding.
- B. Create an Aurora global database spanning us-west-1 as the secondary Region. Update connections to use the writer and reader endpoints as appropriate.
- C. Set up a second Aurora DB cluster in us-west-1. Use logical replication to keep the databases synchronized. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to change the database endpoint if the primary DB cluster does not respond.
- D. Use Aurora automated snapshots to store data in an Amazon S3 bucket. Enable S3 Versioning.
- E. Configure S3 Cross-Region Replication to us-west-1. Create a second Aurora DB cluster in us-west-1. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to restore the snapshot if the primary DB cluster does not respond.

Answer: B

NEW QUESTION 131

A company has a business-critical application that runs on Amazon EC2 instances. The application stores data in an Amazon DynamoDB table. The company must be able to revert the table to any point within the last 24 hours. Which solution meets these requirements with the LEAST operational overhead?

- A. Configure point-in-time recovery for the table.
- B. Use AWS Backup for the table.
- C. Use an AWS Lambda function to make an on-demand backup of the table every hour.
- D. Turn on streams on the table to capture a log of all changes to the table in the last 24 hours.
- E. Store a copy of the stream in an Amazon S3 bucket.

Answer: A

NEW QUESTION 136

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 141

A company is designing an application to run in a VPC on AWS. The application consists of Amazon EC2 instances that run in private subnets as part of an Auto Scaling group. The application also includes a Network Load Balancer that extends across public subnets. The application stores data in an Amazon RDS Oracle Database instance.

The company has attached a security group that is named "web-servers" to the EC2 instances. The company has attached a security group that is named "database" to the DB instance.

How should a solutions architect configure the communication between the EC2 instances and the DB instance?

- A. Configure the "web-servers" security group to allow access to the DB instance's current IP addresses. Configure the "database" security group to allow access from the current set of IP addresses in use by the EC2 instances.
- B. Configure the "web-servers" security group to allow access to the "database" security group. Configure the "database" security group to allow access from the "web-servers" security group.
- C. Configure the "web-servers" security group to allow access to the DB instance's current IP addresses. Configure the "database" security group to allow access from the Auto Scaling group.
- D. Configure the "web-servers" security group to allow access to the "database" security group. Configure the "database" security group to allow access from the Auto Scaling group.

Answer: C

NEW QUESTION 143

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 144

A hospital wants to create digital copies for its large collection of historical written records. The hospital will continue to add hundreds of new documents each day. The hospital's data team will scan the documents and will upload the documents to the AWS Cloud. A solutions architect must implement a solution to analyze the documents: extract the medical information, and store the documents so that an application can run SQL queries on the data. The solution must maximize scalability and operational efficiency. Which combination of steps should the solutions architect take to meet these requirements? (Select TWO.)

- A. Write the document information to an Amazon EC2 instance that runs a MySQL database
- B. Write the document information to an Amazon S3 bucket. Use Amazon Athena to query the data.
- C. Create an Auto Scaling group of Amazon EC2 instances to run a custom application that processes the scanned files and extracts the medical information.
- D. Create an AWS Lambda function that runs when new documents are uploaded. Use Amazon Rekognition to convert the documents to raw text. Use Amazon Transcribe Medical to detect and extract relevant medical information from the text.
- E. Create an AWS Lambda function that runs when new documents are uploaded. Use Amazon Textract to convert the documents to raw text. Use Amazon Comprehend Medical to detect and extract relevant medical information from the text.

Answer: AE

NEW QUESTION 147

Availability Zone The company wants the application to be highly available with minimum downtime and minimum loss of data. Which solution will meet these requirements with the LEAST operational effort?

- A. Place the EC2 instances in different AWS Regions. Use Amazon Route 53 health checks to redirect traffic. Use Aurora PostgreSQL Cross-Region Replication.
- B. Configure the Auto Scaling group to use multiple Availability Zones. Configure the database as Multi-AZ. Configure an Amazon RDS Proxy instance for the database.
- C. Configure the Auto Scaling group to use one Availability Zone. Generate hourly snapshots of the database. Recover the database from the snapshots in the event of a failure.
- D. Configure the Auto Scaling group to use multiple AWS Regions. Write the data from the application to Amazon S3. Use S3 Event Notifications to launch an AWS Lambda function to write the data to the database.

Answer: B

NEW QUESTION 152

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 156

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 161

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 164

A company is designing a new web application that the company will deploy into a single AWS Region. The application requires a two-tier architecture that will include Amazon EC2 instances and an Amazon RDS DB instance. A solutions architect needs to design the application so that all components are highly available.

- A. Deploy EC2 instances in an additional Region. Create a DB instance with the Multi-AZ option activated.
- B. Deploy all EC2 instances in the same Region and the same Availability Zone.
- C. Create a DB instance with the Multi-AZ option activated.
- D. Deploy the EC2 instances across at least two Availability Zones within the same Region.
- E. Create a DB instance in a single Availability Zone.
- F. Deploy the EC2 instances across at least two Availability Zones within the same Region.
- G. Create a DB instance with the Multi-AZ option activated.

Answer: D

NEW QUESTION 165

A company is running a publicly accessible serverless application that uses Amazon API Gateway and AWS Lambda. The application's traffic recently spiked due to fraudulent requests from botnets.

Which steps should a solutions architect take to block requests from unauthorized users? (Select TWO.)

- A. Create a usage plan with an API key that is shared with genuine users only.
- B. Integrate logic within the Lambda function to ignore the requests from fraudulent IP addresses.
- C. Implement an AWS WAF rule to target malicious requests and trigger actions to filter them out.
- D. Convert the existing public API to a private API. Update the DNS records to redirect users to the new API endpoint.
- E. Create an IAM role for each user attempting to access the API. A user will assume the role when making the API call.

Answer: CD

NEW QUESTION 168

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/awscloudtrail/latest/userguide/cloudtrail-sharing-logs.html>

NEW QUESTION 170

A company is deploying a web portal. The company wants to ensure that only the web portion of the application is publicly accessible. To accomplish this, the VPC was designed with two public subnets and two private subnets. The application will run on several Amazon EC2 instances in an Auto Scaling group. SSL termination must be offloaded from the EC2 instances.

What should a solutions architect do to ensure these requirements are met? Configure a Network Load Balancer in the public subnets. Configure the Auto Scaling

- A. group in the private subnets and associate it with an Application Load Balancer. Configure a Network Load Balancer in the public subnet.
- B. Configure the Auto Scaling
- C. group in the public subnets and associate it with an Application Load Balancer.
- D. Configure an Application Load Balancer in the public subnet.
- E. Configure the Auto Scaling group in the private subnets and associate it with the Application Load
- F. Balancer, Configure an Application Load Balancer in the private subnet.

G. Configure the Auto Scaling group in the private subnets and associate it with the Application Load Balancer.

Answer: C

NEW QUESTION 172

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 175

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 176

A company is planning on deploying a newly built application on AWS in a default VPC. The application will consist of a web layer and database layer. The web server was created in public subnets, and the MySQL database was created in private subnet. All subnets are created with the default network ACL settings, and the default security group in the VPC will be replaced with new custom security groups.

- A. Create a database server security group with inbound and outbound rules for MySQL port 3306 traffic to and from anywhere (0.0.0.0/0).
- B. Create a database server security group with an inbound rule for MySQL port 3300 and specify the source as a web server security group.
- C. Create a web server security group within an inbound allow rule for HTTPS port 443 traffic from anywhere (0.0.0.0/0) and an inbound deny rule for IP range 182. 20.0.0/16
- D. Create a web server security group with an inbound rule for HTTPS port 443 traffic from anywhere (0.0.0.0/0). Create network ACL inbound and outbound deny rules for IP range 182. 20.0.0/16
- E. Create a web server security group with an inbound and outbound rules for HTTPS port 443 traffic to and from anywhere (0.0.0.0/0). Create a network ACL inbound deny rule for IP range 182. 20.0.0/16.

Answer: BD

NEW QUESTION 177

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: D

NEW QUESTION 180

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 181

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/-L7Be8rOao3InQxdQcXj/> <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%](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 186

A company wants to use Amazon S3 for the secondary copy of its dataset. The company would rarely need to access this copy. The storage solution's cost should be minimal. Which storage solution meets these requirements?

- A. S3 Standard
- B. S3 Intelligent-Tiering
- C. S3 Standard-Infrequent Access (S3 Standard-IA)
- D. S3 One Zone-Infrequent Access (S3 One Zone-IA)

Answer: C

NEW QUESTION 189

A company is running an application in a private subnet in a VPC with 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 subnet.
- 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 191

A company that primarily runs its application servers on premises has decided to migrate to AWS. The company wants to minimize its need to scale its Internet Small Computer Systems Interface (iSCSI) storage on premises. The company wants only its recently accessed data to remain stored locally. Which AWS solution should the company use to meet these requirements?

- A. Amazon S3 File Gateway
- B. AWS Storage Gateway Tape Gateway
- C. AWS Storage Gateway Volume Gateway stored volumes
- D. AWS Storage Gateway Volume Gateway cached volumes

Answer: D

NEW QUESTION 192

A company uses a legacy application to produce data in CSV format. The legacy application stores the output data in Amazon S3. The company is deploying a new commercial off-the-shelf (COTS) application that can perform complex SQL queries to analyze data that is stored in Amazon Redshift and Amazon S3 only. However, the COTS application cannot process the CSV files that the legacy application produces. The company cannot update the legacy application to produce data in another format. The company needs to implement a solution so that the COTS application can use the data that the legacy application produces. Which solution will meet these requirements with the LEAST operational overhead?

- A. Create an AWS Glue extract, transform, and load (ETL) job that runs on a schedule.
- B. Configure the ETL job to process the CSV files and store the processed data in Amazon Redshift.
- C. Develop a Python script that runs on Amazon EC2 instances to convert the CSV files to SQL files. Invoke the Python script on a cron schedule to store the output files in Amazon S3.
- D. Create an AWS Lambda function and an Amazon DynamoDB table.
- E. Use an S3 event to invoke the Lambda function.

- G. Configure the Lambda function to perform an extract transform, and load (ETL) job to process the .csv files and store the processed data in the DynamoDB table.
- H. Use Amazon EventBridge (Amazon CloudWatch Events) to launch an Amazon EMR cluster on a weekly schedule.
- I. Configure the EMR cluster to perform an extract, transform, and load (ETL) job to process the .csv files and store the processed data in an Amazon Redshift table.

Answer: C

NEW QUESTION 197

A new employee has joined a company as a deployment engineer. The deployment engineer will be using AWS CloudFormation templates to create multiple AWS resources. A solutions architect wants the deployment engineer to perform job activities while following the principle of least privilege. Which steps should the solutions architect do in conjunction to reach this goal? (Select two.)

- A. Have the deployment engineer use AWS account root user credentials for performing AWS CloudFormation stack operations.
- B. Create a new IAM user for the deployment engineer and add the IAM user to a group that has the PowerUsers IAM policy attached.
- C. Create a new IAM user for the deployment engineer and add the IAM user to a group that has the Administrate/Access IAM policy attached.
- D. Create a new IAM User for the deployment engineer and add the IAM user to a group that has an IAM policy that allows AWS CloudFormation actions only.
- E. Create an IAM role for the deployment engineer to explicitly define the permissions specific to the AWS CloudFormation stack and launch stacks using the IAM role.

Answer: DE

Explanation:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles.html https://docs.aws.amazon.com/IAM/latest/UserGuide/id_users.html

NEW QUESTION 202

A company has an application that processes customer orders. The company hosts the application on an Amazon EC2 instance that saves the orders to an Amazon Aurora database. Occasionally when traffic is high, the workload does not process orders fast enough. What should a solutions architect do to write the orders reliably to the database as quickly as possible?

- A. Increase the instance size of the EC2 instance when traffic is high.
- B. Write orders to Amazon Simple Notification Service (Amazon SNS). Subscribe the database endpoint to the SNS topic.
- C. Write orders to an Amazon Simple Queue Service (Amazon SQS) queue. Use EC2 instances in an Auto Scaling group behind an Application Load Balancer to read from the SQS queue and process orders into the database.
- D. Write orders to Amazon Simple Notification Service (Amazon SNS). Subscribe the database endpoint to the SNS topic.
- E. Use EC2 instances in an Auto Scaling group behind an Application Load Balancer to read from the SNS topic.
- F. Write orders to an Amazon Simple Queue Service (Amazon SQS) queue when the EC2 instance reaches CPU threshold limit.
- G. Use scheduled scaling of EC2 instances in an Auto Scaling group behind an Application Load Balancer to read from the SQS queue and process orders into the database.

Answer: B

NEW QUESTION 203

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 208

A company that primarily runs its application servers on premises has decided to migrate to AWS. The company wants to minimize its need to scale its Internet Small Computer Systems Interface (iSCSI) storage on premises. The company wants only its recently accessed data to remain stored locally. Which AWS solution should the company use to meet these requirements?

- A. Amazon S3 File Gateway
- B. AWS Storage Gateway Tape Gateway
- C. AWS Storage Gateway Volume Gateway stored volumes
- D. AWS Storage Gateway Volume Gateway cached volumes

Answer: D

NEW QUESTION 209

A research company runs experiments that are powered by a simulation application and a visualization application. The simulation application runs on Linux and outputs intermediate data to an NFS share every 5 minutes. The visualization application is a Windows desktop application that displays the simulation output and requires an SMB file system.

The company maintains two synchronized file systems. This strategy is causing data duplication and inefficient resource usage. The company needs to migrate the applications to AWS without making code changes to either application.

Which solution will meet these requirements?

- A. Migrate both applications to AWS Lambda. Create an Amazon S3 bucket to exchange data between the applications.

- B. Migrate both applications to Amazon Elastic Container Service (Amazon ECS). Configure Amazon FSx File Gateway for storage.
- C. Migrate the simulation application to Linux Amazon EC2 instance
- D. Migrate the visualization application to Windows EC2 instance
- E. Configure Amazon Simple Queue Service (Amazon SQS) to exchange data between the applications.
- F. Migrate the simulation application to Linux Amazon EC2 instance
- G. Migrate the visualization application to Windows EC2 instance
- H. Configure Amazon FSx for NetApp ONTAP for storage.
- I. B

Answer: E

NEW QUESTION 210

A solution architect is using an AWS CloudFormation template to deploy a three-tier web application. The web application consists of a web tier and an application that stores and retrieves user data in Amazon DynamoDB tables. The web and application tiers are hosted on Amazon EC2 instances, and the database tier is not publicly accessible. The application EC2 instances need to access the Dynamo tables without exposing API credentials in the template. What should the solution architect do to meet the requirements?

- A. Create an IAM role to read the DynamoDB table
- B. Associate the role with the application instances by referencing an instance profile.
- C. Create an IAM role that has the required permissions to read and write from the DynamoDB table
- D. Add the role to the EC2 instance profile, and associate the instance profile with the application instances.
- E. Use the parameter section in the AWS CloudFormation template to have the user input access and secret keys from an already-created IAM user that has the required permissions to read and write from the DynamoDB tables.
- F. Create an IAM user in the AWS CloudFormation template that has the required permissions to read and write from the DynamoDB table
- G. Use the GetAtt function to retrieve the access secret keys, and pass them to the application instances through the user data.

Answer: B

NEW QUESTION 212

A company has an application with a REST-based interface that allows data to be received in near-real time from a third-party vendor. Once received, the application processes and stores the data for further analysis. The application is running on Amazon EC2 instances. The third-party vendor has received many 503 Service Unavailable Errors when sending data to the application. When the data volume spikes, the compute capacity reaches its maximum limit and the application is unable to process all requests. Which design should a solutions architect recommend to provide a more scalable solution?

- A. Use Amazon Kinesis Data Streams to ingest the data. Process the data using AWS Lambda function.
- B. Use Amazon API Gateway on top of the existing application
- C. Create a usage plan with a quota limit for the third-party vendor
- D. Use Amazon Simple Notification Service (Amazon SNS) to ingest the data. Put the EC2 instances in an Auto Scaling group behind an Application Load Balancer
- E. Repackage the application as a container. Deploy the application using Amazon Elastic Container Service (Amazon ECS) using the EC2 launch type with an Auto Scaling group

Answer: A

NEW QUESTION 213

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 policy
- 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 configuration
- 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 policy
- H. Create a health check
- I. Direct traffic to the website if the health check passes
- 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 215

A company needs to retain application logs files for a critical application for 10 years. The application team regularly accesses logs from the past month for troubleshooting, but logs older than 1 month are rarely accessed. The application generates more than 10 TB of logs per month. Which storage option meets these requirements MOST cost-effectively?

- A. Store the logs in Amazon S3. Use AWS Backup to move logs more than 1 month old to S3 Glacier Deep Archive
- B. Store the logs in Amazon S3. Use S3 Lifecycle policies to move logs more than 1 month old to S3 Glacier Deep Archive
- C. Store the logs in Amazon CloudWatch Logs. Use AWS Backup to move logs more than 1 month old to S3 Glacier Deep Archive
- D. Store the logs in Amazon CloudWatch Logs. Use Amazon S3 Lifecycle policies to move logs more than 1 month old to S3 Glacier Deep Archive

Answer: B

NEW QUESTION 217

A company has deployed a serverless 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 219

A company has two VPCs named Management and Production The Management VPC uses VPNs through a customer gateway to connect to a single device in the data center. The Production VPC uses a virtual private gateway with two attached AWS Direct Connect connections The Management and Production VPCs both use a single VPC peering connection to allow communication between the applications.

What should a solutions architect do to mitigate any single point of failure in this architecture?

- A. Add a set of VPNs between the Management and Production VPCs
- B. Add a second virtual private gateway and attach it to the Management VPC.
- C. Add a second set of VPNs to the Management VPC from a second customer gateway device
- D. Add a second VPC peering connection between the Management VPC and the Production VPC.

Answer: C

Explanation:

https://docs.aws.amazon.com/vpn/latest/s2svpn/images/Multiple_Gateways_diagram.png

"To protect against a loss of connectivity in case your customer gateway device becomes unavailable, you can set up a second Site-to-Site VPN connection to your VPC and virtual private gateway by using a second customer gateway device." <https://docs.aws.amazon.com/vpn/latest/s2svpn/vpn-redundant-connection.html>

NEW QUESTION 221

A company wants to reduce the cost of its existing three-tier web architect. The web, application, and database servers are running on Amazon EC2 instance EC2 instance for the development, test and production environments. The EC2 instances average 30% CPU utilization during peak hours and 10% CPU utilization during non-peak hours.

The production EC2 instance purchasing solution will meet the company's requirements MOST cost-effectively?

- A. Use Spot Instances for the production EC2 instance
- B. Use Reserved Instances for the development and test EC2 instances
- C. Use Reserved Instances for the production EC2 instance
- D. Use On-Demand Instances for the development and test EC2 instances
- E. Use blocks for the production EC2 instances Use Reserved instances for the development and test EC2 instances
- F. Use On-Demand Instances for the production EC2 instance
- G. Use Spot blocks for the development and test EC2 instances

Answer: B

NEW QUESTION 224

A company hosts its web applications in the AWS Cloud. The company configures Elastic Load Balancers to use certificates that are imported into AWS Certificate Manager (ACM). The company's security team must be notified 30 days before the expiration of each certificate.

What should a solutions architect recommend to meet the requirement?

- A. Add a rule in ACM to publish a custom message to an Amazon Simple Notification Service (Amazon SNS) topic every day beginning 30 days before any certificate will expire.
- B. Create an AWS Config rule that checks for certificates that will expire within 30 days
- C. Configure Amazon EventBridge (Amazon CloudWatch Events) to invoke a custom alert by way of Amazon Simple Notification Service (Amazon SNS) when AWS Config reports a noncompliant resource
- D. Use AWS Trusted Advisor to check for certificates that will expire within 30 days
- E. Create an Amazon CloudWatch alarm that is based on Trusted Advisor metrics for check status changes Configure the alarm to send a custom alert by way of Amazon Simple Notification Service (Amazon SNS)
- F. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to detect any certificates that will expire within 30 days
- G. Configure the rule to invoke an AWS Lambda function
- H. Configure the Lambda function to send a custom alert by way of Amazon Simple Notification Service (Amazon SNS).

Answer: B

NEW QUESTION 227

A company runs a global web application on Amazon EC2 instances behind an Application Load Balancer The application stores data in Amazon Aurora. The company needs to create a disaster recovery solution and can tolerate up to 30 minutes of downtime and potential data loss. The solution does not need to handle the load when the primary infrastructure is healthy

What should a solutions architect do to meet these requirements?

- A. Deploy the application with the required infrastructure elements in place Use Amazon Route 53 to configure active-passive failover Create an Aurora Replica in a second AWS Region
- B. Host a scaled-down deployment of the application in a second AWS Region Use Amazon Route 53 to configure active-active failover Create an Aurora Replica in the second Region
- C. Replicate the primary infrastructure in a second AWS Region Use Amazon Route 53 to configure active-active failover Create an Aurora database that is restored from the latest snapshot
- D. Back up data with AWS Backup Use the backup to create the required infrastructure in a second AWS Region Use Amazon Route 53 to configure active-passive failover Create an Aurora second primary instance in the second Region

Answer: C

NEW QUESTION 231

A solutions architect is designing a two-tier web application. The application consists of a public-facing web tier hosted on Amazon EC2 in public subnets. The database tier consists of Microsoft SQL Server running on Amazon EC2 in a private subnet. Security is a high priority for the company. How should security groups be configured in this situation? (Select TWO.)

- A. Configure the security group for the web tier to allow inbound traffic on port 443 from 0.0.0.0/0.
- B. Configure the security group for the web tier to allow outbound traffic on port 443 from 0.0.0.0/0.
- C. Configure the security group for the database tier to allow inbound traffic on port 1433 from the security group for the web tier.
- D. Configure the security group for the database tier to allow outbound traffic on ports 443 and 1433 to the security group for the web tier.
- E. Configure the security group for the database tier to allow inbound traffic on ports 443 and 1433 from the security group for the web tier.

Answer: AC

Explanation:

"Security groups create an outbound rule for every inbound rule." Not completely right. Stateful does NOT mean that if you create an inbound (or outbound) rule, it will create an outbound (or inbound) rule. What it does mean is: suppose you create an inbound rule on port 443 for the X ip. When a request enters on port 443 from X ip, it will allow traffic out for that request in the port 443. However, if you look at the outbound rules, there will not be any outbound rule on port 443 unless explicitly create it. In ACLs, which are stateless, you would have to create an inbound rule to allow incoming requests and an outbound rule to allow your application responds to those incoming requests.

https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html#SecurityGroupRules

NEW QUESTION 234

An ecommerce company wants to launch a one-deal-a-day website on AWS. Each day will feature exactly one product on sale (or a period of 24 hours). The company wants to be able to handle millions of requests each hour with millisecond latency during peak hours. Which solution will meet these requirements with the LEAST operational overhead?

- A. Use Amazon S3 to host the full website in different S3 buckets. Add Amazon CloudFront distributions. Set the S3 buckets as origins for the distributions. Store the order data in Amazon S3.
- B. Deploy the full website on Amazon EC2 instances that run in Auto Scaling groups across multiple Availability Zones. Add an Application Load Balancer (ALB) to distribute the website traffic. Add another ALB for the backend APIs. Store the data in Amazon RDS for MySQL.
- C. Migrate the full application to run in containers. Host the containers on Amazon Elastic Kubernetes Service (Amazon EKS). Use the Kubernetes Cluster Autoscaler to increase and decrease the number of pods to process bursts in traffic. Store the data in Amazon RDS for MySQL.
- D. Use an Amazon S3 bucket to host the website's static content. Deploy an Amazon CloudFront distribution.
- E. Set the S3 bucket as the origin. Use Amazon API Gateway and AWS Lambda functions for the backend APIs. Store the data in Amazon DynamoDB.

Answer: D

NEW QUESTION 237

A company is building a solution that will report Amazon EC2 Auto Scaling events across all the applications in an AWS account. The company needs to use a serverless solution to store the EC2 Auto Scaling status data in Amazon S3. The company then will use the data in Amazon S3 to provide near-real-time updates in a dashboard. The solution must not affect the speed of EC2 instance launches. How should the company move the data to Amazon S3 to meet these requirements?

- A. Use an Amazon CloudWatch metric stream to send the EC2 Auto Scaling status data to Amazon Kinesis Data Firehose. Store the data in Amazon S3.
- B. Launch an Amazon EMR cluster to collect the EC2 Auto Scaling status data and send the data to Amazon Kinesis Data Firehose. Store the data in Amazon S3.
- C. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to invoke an AWS Lambda function on a schedule. Configure the Lambda function to send the EC2 Auto Scaling status data directly to Amazon S3.
- D. Use a bootstrap script during the launch of an EC2 instance to install Amazon Kinesis Agent. Configure Kinesis Agent to collect the EC2 Auto Scaling status data and send the data to Amazon Kinesis Data Firehose. Store the data in Amazon S3.

Answer: B

NEW QUESTION 242

A company hosts an application on AWS Lambda functions that are invoked by an Amazon API Gateway API. The Lambda functions save customer data to an Amazon Aurora MySQL database. Whenever the company upgrades the database, the Lambda functions fail to establish database connections until the upgrade is complete. The result is that customer data is not recorded for some of the event. A solutions architect needs to design a solution that stores customer data that is created during database upgrades. Which solution will meet these requirements?

- A. Provision an Amazon RDS proxy to sit between the Lambda functions and the database. Configure the Lambda functions to connect to the RDS proxy.
- B. Increase the run time of the Lambda functions to the maximum. Create a retry mechanism in the code that stores the customer data in the database.
- C. Persist the customer data to Lambda local storage.
- D. Configure new Lambda functions to scan the local storage to save the customer data to the database.
- E. Store the customer data in an Amazon Simple Queue Service (Amazon SQS) FIFO queue. Create a new Lambda function that polls the queue and stores the customer data in the database.

Answer: C

NEW QUESTION 246

A payment processing company records all voice communication with its customers and stores the audio files in an Amazon S3 bucket. The company needs to capture the text from the audio files. The company must remove from the text any personally identifiable information (PII) that belongs to customers. What should a solutions architect do to meet these requirements?

- A. Process the audio files by using Amazon Kinesis Video Stream.
- B. Use an AWS Lambda function to scan for known PII patterns.
- C. When an audio file is uploaded to the S3 bucket, invoke an AWS Lambda function to start an Amazon Textract task to analyze the call recordings.

- D. Configure an Amazon Transcribe transcription job with PII redaction turned on
- E. When an audio file is uploaded to the S3 bucket, invoke an AWS Lambda function to start the transcription job
- F. Store the output in a separate S3 bucket.
- G. Create an Amazon Connect contact flow that ingests the audio files with transcription turned on
- H. Embed an AWS Lambda function to scan for known PII patterns
- I. Use Amazon EventBridge (Amazon CloudWatch Events) to start the contact flow when an audio file is uploaded to the S3 bucket.

Answer: C

NEW QUESTION 247

A solutions architect is using Amazon S3 to design the storage architecture of a new digital media application. The media files must be resilient to the loss of an Availability Zone. Some files are accessed frequently while other files are rarely accessed in an unpredictable pattern. The solutions architect must minimize the costs of storing and retrieving the media files.

Which storage option meets these requirements?

- A. S3 Standard
- B. S3 Intelligent-Tiering
- C. S3 Standard-Infrequent Access (S3 Standard-IA)
- D. S3 One Zone-Infrequent Access (S3 One Zone-IA)

Answer: B

NEW QUESTION 249

A solutions architect is tasked with transferring 750 TB of data from a network-attached file system located at a branch office to Amazon S3 Glacier. The solution must avoid saturating the branch office's low-bandwidth internet connection.

What is the MOST cost-effective solution?

- A. Create a site-to-site VPN tunnel to an Amazon S3 bucket and transfer the files directly
- B. Create a bucket policy to enforce a VPC endpoint
- C. Order 10 AWS Snowball appliances and select an S3 Glacier vault as the destination
- D. Create a bucket policy to enforce a VPC endpoint
- E. Mount the network-attached file system to Amazon S3 and copy the files directly
- F. Create a lifecycle policy to transition the S3 objects to Amazon S3 Glacier
- G. Order 10 AWS Snowball appliances and select an Amazon S3 bucket as the destination
- H. Create a lifecycle policy to transition the S3 objects to Amazon S3 Glacier

Answer: D

NEW QUESTION 253

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 258

A company wants to migrate a Windows-based application from on-premises to the AWS Cloud. The application has three tiers, a business tier, and a database tier with Microsoft SQL Server. The company wants to use specific features of SQL Server such as native backups and Data Quality Services. The company also needs to share files for processes between the tiers.

How should a solution architect design the architecture to meet these requirements?

- A. Host all three on Amazon instance
- B. Use Amazon FSx File Gateway for file sharing between tiers.
- C. Host all three on Amazon EC2 instance
- D. Use Amazon FSx for Windows file sharing between the tiers.
- E. Host the application tier and the business tier on Amazon EC2 instance
- F. Host the database tier on Amazon RD
- G. Use Amazon Elastic File System (Amazon EFS) for file sharing between the tiers.
- H. Host the application tier and the business tier on Amazon EC2 instance
- I. Host the database tier on Amazon RD
- J. Use a Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volume for file sharing between the tiers.

Answer: B

NEW QUESTION 259

A company's web application resizes uploaded images for users. The application stores the original images and the resized images in Amazon S3. The company

needs to minimize the storage costs for all the images. Original images are viewed frequently, and resized images are viewed infrequently after they are created. Both types of images need to be immediately available.

Which combination of actions should a solutions architect take to meet these requirements? (Select TWO.) A. Store the original images in S3 Standard.

- A. Store the resized images in S3 Standard
- B. Store the original images in S3 Glacier
- C. Store the resized images in S3 Glacier
- D. Store the resized images in S3 One Zone-Infrequent Access (S3 One Zone-IA).

Answer: AD

NEW QUESTION 261

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