

SAA-C03 Dumps

AWS Certified Solutions Architect - Associate (SAA-C03)

<https://www.certleader.com/SAA-C03-dumps.html>



NEW QUESTION 1

- (Exam Topic 1)

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 2

- (Exam Topic 1)

A company is designing an application. The application uses an AWS Lambda function to receive information through Amazon API Gateway and to store the information in an Amazon Aurora PostgreSQL database.

During the proof-of-concept stage, the company has to increase the Lambda quotas significantly to handle the high volumes of data that the company needs to load into the database. A solutions architect must recommend a new design to improve scalability and minimize the configuration effort.

Which solution will meet these requirements?

- A. Refactor the Lambda function code to Apache Tomcat code that runs on Amazon EC2 instances. Connect the database by using native Java Database Connectivity (JDBC) drivers.
- B. Change the platform from Aurora to Amazon DynamoDB
- C. Provision a DynamoDB Accelerator (DAX) cluster
- D. Use the DAX client SDK to point the existing DynamoDB API calls at the DAX cluster.
- E. Set up two Lambda function
- F. Configure one function to receive the information
- G. Configure the other function to load the information into the database
- H. Integrate the Lambda functions by using Amazon Simple Notification Service (Amazon SNS).
- I. Set up two Lambda function
- J. Configure one function to receive the information
- K. Configure the other function to load the information into the database
- L. Integrate the Lambda functions by using an Amazon Simple Queue Service (Amazon SQS) queue.

Answer: B

Explanation:

bottlenecks can be avoided with queues (SQS).

NEW QUESTION 3

- (Exam Topic 1)

A company is building an ecommerce web application on AWS. The application sends information about new orders to an Amazon API Gateway REST API to process. The company wants to ensure that orders are processed in the order that they are received.

Which solution will meet these requirements?

- A. Use an API Gateway integration to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic when the application receives an order
- B. Subscribe an AWS Lambda function to the topic to perform processing.
- C. Use an API Gateway integration to send a message to an Amazon Simple Queue Service (Amazon SQS) FIFO queue when the application receives an order
- D. Configure the SQS FIFO queue to invoke an AWS Lambda function for processing.
- E. Use an API Gateway authorizer to block any requests while the application processes an order.
- F. Use an API Gateway integration to send a message to an Amazon Simple Queue Service (Amazon SQS) standard queue when the application receives an order
- G. Configure the SQS standard queue to invoke an AWS Lambda function for processing.

Answer: B

NEW QUESTION 4

- (Exam Topic 1)

A solutions architect is designing a new hybrid architecture to extend a company's on-premises infrastructure to AWS. The company requires a highly available connection with consistent low latency to an AWS Region. The company needs to minimize costs and is willing to accept slower traffic if the primary connection

fails.

What should the solutions architect do to meet these requirements?

- A. Provision an AWS Direct Connect connection to a Region Provision a VPN connection as a backup if the primary Direct Connect connection fails.
- B. Provision a VPN tunnel connection to a Region for private connectivity
- C. Provision a second VPN tunnel for private connectivity and as a backup if the primary VPN connection fails.
- D. Provision an AWS Direct Connect connection to a Region Provision a second Direct Connect connection to the same Region as a backup if the primary Direct Connect connection fails.
- E. Provision an AWS Direct Connect connection to a Region Use the Direct Connect failover attribute from the AWS CLI to automatically create a backup connection if the primary Direct Connect connection fails.

Answer: A

Explanation:

"In some cases, this connection alone is not enough. It is always better to guarantee a fallback connection as the backup of DX. There are several options, but implementing it with an AWS Site-To-Site VPN is a real cost-effective solution that can be exploited to reduce costs or, in the meantime, wait for the setup of a second DX."

<https://www.proud2becloud.com/hybrid-cloud-networking-backup-aws-direct-connect-network-connection-with>

NEW QUESTION 5

- (Exam Topic 1)

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

Explanation:

<https://aws.amazon.com/fsx/lustre/>

Amazon FSx has native support for Windows file system features and for the industry-standard Server Message Block (SMB) protocol to access file storage over a network. <https://docs.aws.amazon.com/fsx/latest/WindowsGuide/what-is.html>

NEW QUESTION 6

- (Exam Topic 1)

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 7

- (Exam Topic 1)

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

Explanation:

"The Object Lock legal hold operation enables you to place a legal hold on an object version. Like setting a retention period, a legal hold prevents an object version from being overwritten or deleted. However, a legal hold doesn't have an associated retention period and remains in effect until removed."

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/batch-ops-legal-hold.html>

NEW QUESTION 8

- (Exam Topic 1)

A survey company has gathered data for several years from areas in the United States. The company hosts the data in an Amazon S3 bucket that is 3 TB in size and growing. The company has started to share the data with a European marketing firm that has S3 buckets. The company wants to ensure that its data transfer costs remain as low as possible.

Which solution will meet these requirements?

- A. Configure the Requester Pays feature on the company's S3 bucket
- B. Configure S3 Cross-Region Replication from the company's S3 bucket to one of the marketing firm's S3 buckets.
- C. Configure cross-account access for the marketing firm so that the marketing firm has access to the company's S3 bucket.
- D. Configure the company's S3 bucket to use S3 Intelligent-Tiering Sync the S3 bucket to one of the marketing firm's S3 buckets

Answer: A

Explanation:

"Typically, you configure buckets to be Requester Pays buckets when you want to share data but not incur charges associated with others accessing the data. For example, you might use Requester Pays buckets when making available large datasets, such as zip code directories, reference data, geospatial information, or web crawling data." <https://docs.aws.amazon.com/AmazonS3/latest/userguide/RequesterPaysBuckets.html>

NEW QUESTION 9

- (Exam Topic 1)

A company is running a popular social media website. The website gives users the ability to upload images to share with other users. The company wants to make sure that the images do not contain inappropriate content. The company needs a solution that minimizes development effort. What should a solutions architect do to meet these requirements?

- A. Use Amazon Comprehend to detect inappropriate conten
- B. Use human review for low-confidence predictions.
- C. Use Amazon Rekognition to detect inappropriate conten
- D. Use human review for low-confidence predictions.
- E. Use Amazon SageMaker to detect inappropriate conten
- F. Use ground truth to label low-confidence predictions.
- G. Use AWS Fargate to deploy a custom machine learning model to detect inappropriate conten
- H. Use ground truth to label low-confidence predictions.

Answer: B

Explanation:

<https://docs.aws.amazon.com/rekognition/latest/dg/moderation.html?pg=ln&sec=ft> <https://docs.aws.amazon.com/rekognition/latest/dg/a2i-rekognition.html>

NEW QUESTION 10

- (Exam Topic 1)

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 10

- (Exam Topic 1)

A company wants to reduce the cost of its existing three-tier web architecture. The web, application, and database servers are running on Amazon EC2 instances 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 instances run 24 hours a day. The development and test EC2 instances run for at least 8 hours each day. The company plans to implement automation to stop the development and test EC2 instances when they are not in use.

Which 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 Spot blocks for the production EC2 instance
- F. Use Reserved Instances for the development and test EC2 instances.
- G. Use On-Demand Instances for the production EC2 instance
- H. Use Spot blocks for the development and test EC2 instances.

Answer: B

NEW QUESTION 13

- (Exam Topic 1)

A company's HTTP application is behind a Network Load Balancer (NLB). The NLB's target group is configured to use an Amazon EC2 Auto Scaling group with multiple EC2 instances that run the web service.

The company notices that the NLB is not detecting HTTP errors for the application. These errors require a manual restart of the EC2 instances that run the web service. The company needs to improve the application's availability without writing custom scripts or code.

What should a solutions architect do to meet these requirements?

- A. Enable HTTP health checks on the NL
- B. supplying the URL of the company's application.
- C. Add a cron job to the EC2 instances to check the local application's logs once each minut
- D. If HTTP errors are detected, the application will restart.
- E. Replace the NLB with an Application Load Balance

- F. Enable HTTP health checks by supplying the URL of the company's application
- G. Configure an Auto Scaling action to replace unhealthy instances.
- H. Create an Amazon Cloud Watch alarm that monitors the UnhealthyHostCount metric for the NL
- I. Configure an Auto Scaling action to replace unhealthy instances when the alarm is in the ALARM state.

Answer: C

NEW QUESTION 14

- (Exam Topic 1)

A company's containerized application runs on an Amazon EC2 instance. The application needs to download security certificates before it can communicate with other business applications. The company wants a highly secure solution to encrypt and decrypt the certificates in near real time. The solution also needs to store data in highly available storage after the data is encrypted.

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

- A. Create AWS Secrets Manager secrets for encrypted certificate
- B. Manually update the certificates as needed
- C. Control access to the data by using fine-grained IAM access.
- D. Create an AWS Lambda function that uses the Python cryptography library to receive and perform encryption operation
- E. Store the function in an Amazon S3 bucket.
- F. Create an AWS Key Management Service (AWS KMS) customer managed key
- G. Allow the EC2 role to use the KMS key for encryption operation
- H. Store the encrypted data on Amazon S3.
- I. Create an AWS Key Management Service (AWS KMS) customer managed key
- J. Allow the EC2 role to use the KMS key for encryption operation
- K. Store the encrypted data on Amazon Elastic Block Store (Amazon EBS) volumes.

Answer: D

NEW QUESTION 19

- (Exam Topic 1)

A company runs its Infrastructure on AWS and has a registered base of 700,000 users for a document management application. The company intends to create a product that converts large PDF files to JPG image files. The PDF files average 5 MB in size. The company needs to store the original files and the converted files. A solutions architect must design a scalable solution to accommodate demand that will grow rapidly over time.

Which solution meets these requirements MOST cost-effectively?

- A. Save the PDF files to Amazon S3. Configure an S3 PUT event to invoke an AWS Lambda function to convert the files to JPG format and store them back in Amazon S3.
- B. Save the PDF files to Amazon DynamoDB.
- C. Use the DynamoDB Streams feature to invoke an AWS Lambda function to convert the files to JPG format and store them back in DynamoDB.
- D. Upload the PDF files to an AWS Elastic Beanstalk application that includes Amazon EC2 instances, Amazon Elastic Block Store (Amazon EBS) storage, and an Auto Scaling group.
- E. Use a program in the EC2 instances to convert the files to JPG format. Save the PDF files and the JPG files in the EBS store.
- F. Upload the PDF files to an AWS Elastic Beanstalk application that includes Amazon EC2 instances, Amazon Elastic File System (Amazon EFS) storage, and an Auto Scaling group.
- G. Use a program in the EC2 instances to convert the file to JPG format. Save the PDF files and the JPG files in the EBS store.

Answer: A

Explanation:

Elastic Beanstalk is expensive, and DocumentDB has a 400KB max to upload files. So Lambda and S3 should be the one.

NEW QUESTION 24

- (Exam Topic 1)

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: D

Explanation:

<https://www.learnaws.org/2020/12/13/aws-rds-proxy-deep-dive/>

RDS proxy can improve application availability in such a situation by waiting for the new database instance to be functional and maintaining any requests received from the application during this time. The end result is that the application is more resilient to issues with the underlying database.

This will enable solution to hold data till the time DB comes back to normal. RDS proxy is to optimally utilize the connection between Lambda and DB. Lambda can open multiple connection concurrently which can be taxing on DB compute resources, hence RDS proxy was introduced to manage and leverage these connections efficiently.

NEW QUESTION 28

- (Exam Topic 1)

A company needs guaranteed Amazon EC2 capacity in three specific Availability Zones in a specific AWS Region for an upcoming event that will last 1 week.

What should the company do to guarantee the EC2 capacity?

- A. Purchase Reserved instances that specify the Region needed
- B. Create an On Demand Capacity Reservation that specifies the Region needed
- C. Purchase Reserved instances that specify the Region and three Availability Zones needed
- D. Create an On-Demand Capacity Reservation that specifies the Region and three Availability Zones needed

Answer: D

Explanation:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-capacity-reservations.html>

Reserve instances: You will have to pay for the whole term (1 year or 3years) which is not cost effective

NEW QUESTION 33

- (Exam Topic 1)

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 34

- (Exam Topic 1)

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 36

- (Exam Topic 1)

A company is running an SMB file server in its data center. The file server stores large files that are accessed frequently for the first few days after the files are created. After 7 days the files are rarely accessed.

The total data size is increasing and is close to the company's total storage capacity. A solutions architect must increase the company's available storage space without losing low-latency access to the most recently accessed files. The solutions architect must also provide file lifecycle management to avoid future storage issues.

Which solution will meet these requirements?

- A. Use AWS DataSync to copy data that is older than 7 days from the SMB file server to AWS.
- B. Create an Amazon S3 File Gateway to extend the company's storage space
- C. Create an S3 Lifecycle policy to transition the data to S3 Glacier Deep Archive after 7 days.
- D. Create an Amazon FSx for Windows File Server file system to extend the company's storage space.
- E. Install a utility on each user's computer to access Amazon S3. Create an S3 Lifecycle policy to transition the data to S3 Glacier Flexible Retrieval after 7 days.

Answer: A

NEW QUESTION 40

- (Exam Topic 1)

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: A

NEW QUESTION 44

- (Exam Topic 1)

A company uses 50 TB of data for reporting. The company wants to move this data from on premises to AWS. A custom application in the company's data center runs a weekly data transformation job. The company plans to pause the application until the data transfer is complete and needs to begin the transfer process as soon as possible.

The data center does not have any available network bandwidth for additional workloads. A solutions architect must transfer the data and must configure the transformation job to continue to run in the AWS Cloud.

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

- A. Use AWS DataSync to move the data. Create a custom transformation job by using AWS Glue.
- B. Order an AWS Snowcone device to move the data. Deploy the transformation application to the device.
- C. Order an AWS Snowball Edge Storage Optimized device.
- D. Copy the data to the device.
- E. Create a custom transformation job by using AWS Glue.
- F. Order an AWS
- G. Snowball Edge Storage Optimized device that includes Amazon EC2 compute. Copy the data to the device. Create a new EC2 instance on AWS to run the transformation application.

Answer: C

NEW QUESTION 48

- (Exam Topic 1)

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 Simple Queue Service (Amazon SQS) standard 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: C

NEW QUESTION 50

- (Exam Topic 1)

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 51

- (Exam Topic 1)

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: A

NEW QUESTION 54

- (Exam Topic 1)

A company hosts a data lake on AWS. The data lake consists of data in Amazon S3 and Amazon RDS for PostgreSQL. The company needs a reporting solution that provides data visualization and includes all the data sources within the data lake. Only the company's management team should have full access to all the visualizations. The rest of the company should have only limited access.

Which solution will meet these requirements?

- A. Create an analysis in Amazon QuickSight
- B. Connect all the data sources and create new dataset
- C. Publish dashboards to visualize the data
- D. Share the dashboards with the appropriate IAM roles.
- E. Create an analysis in Amazon QuickSight
- F. Connect all the data sources and create new dataset
- G. Publish dashboards to visualize the data
- H. Share the dashboards with the appropriate users and groups.
- I. Create an AWS Glue table and crawler for the data in Amazon S3. Create an AWS Glue extract, transform, and load (ETL) job to produce report
- J. Publish the reports to Amazon S3. Use S3 bucket policies to limit access to the reports.
- K. Create an AWS Glue table and crawler for the data in Amazon S3. Use Amazon Athena Federated Query to access data within Amazon RDS for PostgreSQL
- L. Generate reports by using Amazon Athena
- M. Publish the reports to Amazon S3. Use S3 bucket policies to limit access to the reports.

Answer: A

NEW QUESTION 57

- (Exam Topic 1)

A social media company allows users to upload images to its website. The website runs on Amazon EC2 instances. During upload requests, the website resizes the images to a standard size and stores the resized images in Amazon S3. Users are experiencing slow upload requests to the website. The company needs to reduce coupling within the application and improve website performance. A solutions architect must design the most operationally efficient process for image uploads.

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

- A. Configure the application to upload images to S3 Glacier.
- B. Configure the web server to upload the original images to Amazon S3.
- C. Configure the application to upload images directly from each user's browser to Amazon S3 through the use of a presigned URL.
- D. Configure S3 Event Notifications to invoke an AWS Lambda function when an image is uploaded
- E. Use the function to resize the image
- F. Create an Amazon EventBridge (Amazon CloudWatch Events) rule that invokes an AWS Lambda function on a schedule to resize uploaded images.

Answer: BD

NEW QUESTION 59

- (Exam Topic 1)

A solutions architect must design a highly available infrastructure for a website. The website is powered by Windows web servers that run on Amazon EC2 instances. The solutions architect must implement a solution that can mitigate a large-scale DDoS attack that originates from thousands of IP addresses. Downtime is not acceptable for the website.

Which actions should the solutions architect take to protect the website from such an attack? (Select TWO.)

- A. Use AWS Shield Advanced to stop the DDoS attack.
- B. Configure Amazon GuardDuty to automatically block the attackers.
- C. Configure the website to use Amazon CloudFront for both static and dynamic content.
- D. Use an AWS Lambda function to automatically add attacker IP addresses to VPC network ACLs.
- E. Use EC2 Spot Instances in an Auto Scaling group with a target tracking scaling policy that is set to 80% CPU utilization

Answer: AC

Explanation:

(<https://aws.amazon.com/cloudfront>)

NEW QUESTION 61

- (Exam Topic 1)

A company recently migrated a message processing system to AWS. The system receives messages into an ActiveMQ queue running on an Amazon EC2 instance. Messages are processed by a consumer application running on Amazon EC2. The consumer application processes the messages and writes results to a MySQL database running on Amazon EC2. The company wants this application to be highly available with low operational complexity

Which architecture offers the HIGHEST availability?

- A. Add a second ActiveMQ server to another Availability Zone Add an additional consumer EC2 instance in another Availability Zone
- B. Replicate the MySQL database to another Availability Zone.
- C. Use Amazon MQ with active/standby brokers configured across two Availability Zones Add an additional consumer EC2 instance in another Availability Zone
- D. Replicate the MySQL database to another Availability Zone.
- E. Use Amazon MQ with active/standby brokers configured across two Availability Zones
- F. Add an additional consumer EC2 instance in another Availability Zone
- G. Use Amazon RDS for MySQL with Multi-AZ enabled.
- H. Use Amazon MQ with active/standby brokers configured across two Availability Zones Add an Auto Scaling group for the consumer EC2 instances across two Availability Zones
- I. Use Amazon RDS for MySQL with Multi-AZ enabled.

Answer: D

NEW QUESTION 65

- (Exam Topic 1)

A company wants to move a multi-tiered application from on premises to the AWS Cloud to improve the application's performance. The application consists of application tiers that communicate with each other by way of RESTful services. Transactions are dropped when one tier becomes overloaded. A solutions architect must design a solution that resolves these issues and modernizes the application.

Which solution meets these requirements and is the MOST operationally efficient?

- A. Use Amazon API Gateway and direct transactions to the AWS Lambda functions as the application layer
- B. Use Amazon Simple Queue Service (Amazon SQS) as the communication layer between application services.
- C. Use Amazon CloudWatch metrics to analyze the application performance history to determine the server's peak utilization during the performance failure
- D. Increase the size of the application server's Amazon EC2 instances to meet the peak requirements.
- E. Use Amazon Simple Notification Service (Amazon SNS) to handle the messaging between application servers running on Amazon EC2 in an Auto Scaling group
- F. Use Amazon CloudWatch to monitor the SNS queue length and scale up and down as required.
- G. Use Amazon Simple Queue Service (Amazon SQS) to handle the messaging between application servers running on Amazon EC2 in an Auto Scaling group
- H. Use Amazon CloudWatch to monitor the SQS queue length and scale up when communication failures are detected.

Answer: A

Explanation:

<https://aws.amazon.com/getting-started/hands-on/build-serverless-web-app-lambda-apigateway-s3-dynamodb-c> Build a Serverless Web Application with AWS Lambda, Amazon API Gateway, AWS Amplify, Amazon DynamoDB, and Amazon Cognito. This example showed similar setup as question: Build a Serverless Web Application with AWS Lambda, Amazon API Gateway, AWS Amplify, Amazon DynamoDB, and Amazon Cognito

NEW QUESTION 69

- (Exam Topic 1)

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

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

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

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

Answer: C

Explanation:

This is the purpose of bookmarks: "AWS Glue tracks data that has already been processed during a previous run of an ETL job by persisting state information from the job run. This persisted state information is called a job bookmark. Job bookmarks help AWS Glue maintain state information and prevent the reprocessing of old data." <https://docs.aws.amazon.com/glue/latest/dg/monitor-continuations.html>

NEW QUESTION 70

- (Exam Topic 1)

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 75

- (Exam Topic 1)

A company runs a photo processing application that needs to frequently upload and download pictures from Amazon S3 buckets that are located in the same AWS Region. A solutions architect has noticed an increased cost in data transfer fees and needs to implement a solution to reduce these costs.

How can the solutions architect meet this requirement?

- A. Deploy Amazon API Gateway into a public subnet and adjust the route table to route S3 calls through it.
- B. Deploy a NAT gateway into a public subnet and attach an endpoint policy that allows access to the S3 buckets.
- C. Deploy the application into a public subnet and allow it to route through an internet gateway to access the S3 buckets.
- D. Deploy an S3 VPC gateway endpoint into the VPC and attach an endpoint policy that allows access to the S3 buckets.

Answer: D

NEW QUESTION 79

- (Exam Topic 1)

A global company hosts its web application on Amazon EC2 instances behind an Application Load Balancer (ALB). The web application has static data and dynamic data. The company stores its static data in an Amazon S3 bucket. The company wants to improve performance and reduce latency for the static data and dynamic data. The company is using its own domain name registered with Amazon Route 53.

What should a solutions architect do to meet these requirements?

- A. Create an Amazon CloudFront distribution that has the S3 bucket and the ALB as origins. Configure Route 53 to route traffic to the CloudFront distribution.
- B. Create an Amazon CloudFront distribution that has the ALB as an origin. Create an AWS Global Accelerator standard accelerator that has the S3 bucket as an endpoint.
- C. Configure Route 53 to route traffic to the CloudFront distribution.
- D. Create an Amazon CloudFront distribution that has the S3 bucket as an origin. Create an AWS Global Accelerator standard accelerator that has the ALB and the CloudFront distribution as endpoints. Create a custom domain name that points to the accelerator DNS name. Use the custom domain name as an endpoint for the

web application.

E. Create an Amazon CloudFront distribution that has the ALB as an origin

F. Create an AWS Global Accelerator standard accelerator that has the S3 bucket as an endpoint Create two domain name

G. Point one domain name to the CloudFront DNS name for dynamic content, Point the other domain name to the accelerator DNS name for static content Use the domain names as endpoints for the web application.

Answer: C

Explanation:

Static content can be cached at Cloud front Edge locations from S3 and dynamic content EC2 behind the ALB whose performance can be improved by Global Accelerator whose one endpoint is ALB and other Cloud front. So with regards to custom domain name endpoint is web application is R53 alias records for the custom domain point to web application

<https://aws.amazon.com/blogs/networking-and-content-delivery/improving-availability-and-performance-for-ap>

NEW QUESTION 80

- (Exam Topic 1)

A company uses Amazon S3 to store its confidential audit documents. The S3 bucket uses bucket policies to restrict access to audit team IAM user credentials according to the principle of least privilege. Company managers are worried about accidental deletion of documents in the S3 bucket and want a more secure solution.

What should a solutions architect do to secure the audit documents?

A. Enable the versioning and MFA Delete features on the S3 bucket.

B. Enable multi-factor authentication (MFA) on the IAM user credentials for each audit team IAM user account.

C. Add an S3 Lifecycle policy to the audit team's IAM user accounts to deny the s3:DeleteObject action during audit dates.

D. Use AWS Key Management Service (AWS KMS) to encrypt the S3 bucket and restrict audit team IAM user accounts from accessing the KMS key.

Answer: A

NEW QUESTION 81

- (Exam Topic 1)

A company has a website hosted on AWS. The website is behind an Application Load Balancer (ALB) that is configured to handle HTTP and HTTPS separately. The company wants to forward all requests to the website so that the requests will use HTTPS.

What should a solutions architect do to meet this requirement?

A. Update the ALB's network ACL to accept only HTTPS traffic

B. Create a rule that replaces the HTTP in the URL with HTTPS.

C. Create a listener rule on the ALB to redirect HTTP traffic to HTTPS.

D. Replace the ALB with a Network Load Balancer configured to use Server Name Indication (SNI).

Answer: C

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/elb-redirect-http-to-https-using-alb/>

How can I redirect HTTP requests to HTTPS using an Application Load Balancer? Last updated: 2020-10-30 I want to redirect HTTP requests to HTTPS using Application Load Balancer listener rules. How can I do this? Resolution Reference:

<https://aws.amazon.com/premiumsupport/knowledge-center/elb-redirect-http-to-https-using-alb/>

NEW QUESTION 83

- (Exam Topic 1)

A company runs an on-premises application that is powered by a MySQL database The company is migrating the application to AWS to Increase the application's elasticity and availability

The current architecture shows heavy read activity on the database during times of normal operation Every 4 hours the company's development team pulls a full export of the production database to populate a database in the staging environment During this period, users experience unacceptable application latency The development team is unable to use the staging environment until the procedure completes

A solutions architect must recommend replacement architecture that alleviates the application latency issue The replacement architecture also must give the development team the ability to continue using the staging environment without delay

Which solution meets these requirements?

A. Use Amazon Aurora MySQL with Multi-AZ Aurora Replicas for productio

B. Populate the staging database by implementing a backup and restore process that uses the mysqldump utility.

C. Use Amazon Aurora MySQL with Multi-AZ Aurora Replicas for production Use database cloning to create the staging database on-demand

D. Use Amazon RDS for MySQL with a Mufti AZ deployment and read replicas for production Use the standby instance tor the staging database.

E. Use Amazon RDS for MySQL with a Multi-AZ deployment and read replicas for productio

F. Populate the staging database by implementing a backup and restore process that uses the mysqldump utility.

Answer: B

Explanation:

<https://aws.amazon.com/blogs/aws/amazon-aurora-fast-database-cloning/>

NEW QUESTION 86

- (Exam Topic 1)

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 Manage

B. Turn on automatic rotation.

C. Use AWS Systems Manager Parameter Stor

- 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: A

Explanation:

<https://aws.amazon.com/cn/blogs/security/how-to-connect-to-aws-secrets-manager-service-within-a-virtual-private-network/> <https://aws.amazon.com/blogs/security/rotate-amazon-rds-database-credentials-automatically-with-aws-secrets-manager/>

NEW QUESTION 87

- (Exam Topic 1)

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 92

- (Exam Topic 1)

A company has an application that generates a large number of files, each approximately 5 MB in size. The files are stored in Amazon S3. Company policy requires the files to be stored for 4 years before they can be

deleted. Immediate accessibility is always required as the files contain critical business data that is not easy to reproduce. The files are frequently accessed in the first 30 days of the object creation but are rarely accessed after the first 30 days.

Which storage solution is MOST cost-effective?

- A. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3 Glacier 30 days from object creation. Delete the files 4 years after object creation.
- B. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) 30 days from object creation. Delete the files 4 years after object creation.
- C. Delete the files 4 years after object creation.
- D. Create an S3 bucket lifecycle policy to move files from S3 Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation. Delete the files 4 years after object creation.
- E. Delete the files 4 years after object creation.
- F. Create an S3 bucket lifecycle policy to move files from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation. Move the files to S3 Glacier 4 years after object creation.

Answer: B

Explanation:

https://aws.amazon.com/s3/storage-classes/?trk=66264cd8-3b73-416c-9693-ea7cf4fe846a&sc_channel=ps&s_k

NEW QUESTION 93

- (Exam Topic 1)

An application runs on an Amazon EC2 instance in a VPC. The application processes logs that are stored in an Amazon S3 bucket. The EC2 instance needs to access the S3 bucket without connectivity to the internet.

Which solution will provide private network connectivity to Amazon S3?

- A. Create a gateway VPC endpoint to the S3 bucket.
- B. Stream the logs to Amazon CloudWatch Log
- C. Export the logs to the S3 bucket.
- D. Create an instance profile on Amazon EC2 to allow S3 access.
- E. Create an Amazon API Gateway API with a private link to access the S3 endpoint.

Answer: A

Explanation:

VPC endpoint allows you to connect to AWS services using a private network instead of using the public Internet.

NEW QUESTION 98

- (Exam Topic 1)

A company is deploying a new public web application to AWS. The application will run behind an Application Load Balancer (ALB). The application needs to be encrypted at the edge with an SSL/TLS certificate that is issued by an external certificate authority (CA). The certificate must be rotated each year before the certificate expires.

What should a solutions architect do to meet these requirements?

- A. Use AWS Certificate Manager (ACM) to issue an SSL/TLS certificate.
- B. Apply the certificate to the ALB.
- C. Use the managed renewal feature to automatically rotate the certificate.
- D. Use AWS Certificate Manager (ACM) to issue an SSL/TLS certificate.
- E. Import the key material from the certificate.

- F. Apply the certificate to the AL
- G. Use the managed renewal feature to automatically rotate the certificate.
- H. Use AWS Certificate Manager (ACM) Private Certificate Authority to issue an SSL/TLS certificate from the root C
- I. Apply the certificate to the AL
- J. Use the managed renewal feature to automatically rotate the certificate.
- K. Use AWS Certificate Manager (ACM) to import an SSL/TLS certificat
- L. Apply the certificate to the AL
- M. Use Amazon EventBridge (Amazon CloudWatch Events) to send a notification when the certificate is nearing expiratio
- N. Rotate the certificate manually.

Answer: D

NEW QUESTION 101

- (Exam Topic 1)

A company has thousands of edge devices that collectively generate 1 TB of status alerts each day. Each alert is approximately 2 KB in size. A solutions architect needs to implement a solution to ingest and store the alerts for future analysis.

The company wants a highly available solution. However, the company needs to minimize costs and does not want to manage additional infrastructure. Additionally, the company wants to keep 14 days of data available for immediate analysis and archive any data older than 14 days.

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

- A. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon S3 bucket Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days
- B. Launch Amazon EC2 instances across two Availability Zones and place them behind an Elastic Load Balancer to ingest the alerts Create a script on the EC2 instances that will store tne alerts m an Amazon S3 bucket Set up an S3 Lifecycle configuration to transition data to Amazon S3 Glacier after 14 days
- C. Create an Amazon Kinesis Data Firehose delivery stream to ingest the alerts Configure the Kinesis Data Firehose stream to deliver the alerts to an Amazon Elasticsearch Service (Amazon ES) duster Set up the Amazon ES cluster to take manual snapshots every day and delete data from the duster that is older than 14 days
- D. Create an Amazon Simple Queue Service (Amazon SQS i standard queue to ingest the alerts and set the message retention period to 14 days Configure consumers to poll the SQS queue check the age of the message and analyze the message data as needed If the message is 14 days old the consumer should copy the message to an Amazon S3 bucket and delete the message from the SQS queue

Answer: A

Explanation:

<https://aws.amazon.com/kinesis/data-firehose/features/?nc=sn&loc=2#:~:text=into%20Amazon%20S3%2C%20>

NEW QUESTION 103

- (Exam Topic 2)

A large media company hosts a web application on AWS. The company wants to start caching confidential media files so that users around the world will have reliable access to the files. The content is stored in Amazon S3 buckets. The company must deliver the content quickly, regardless of where the requests originate geographically.

Which solution will meet these requirements?

- A. Use AWS DataSync to connect the S3 buckets to the web application.
- B. Deploy AWS Global Accelerator to connect the S3 buckets to the web application.
- C. Deploy Amazon CloudFront to connect the S3 buckets to CloudFront edge servers.
- D. Use Amazon Simple Queue Service (Amazon SQS) to connect the S3 buckets to the web application.

Answer: C

Explanation:

CloudFront uses a local cache to provide the response, AWS Global accelerator proxies requests and connects to the application all the time for the response.

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

NEW QUESTION 106

- (Exam Topic 2)

A solutions architect needs to securely store a database user name and password that an application uses to access an Amazon RDS DB instance. The application that accesses the database runs on an Amazon EC2 instance. The solutions architect wants to create a secure parameter in AWS Systems Manager Parameter Store.

What should the solutions architect do to meet this requirement?

- A. Create an IAM role that has read access to the Parameter Store paramete
- B. Allow Decrypt access to an AWS Key Management Service (AWS KMS) key that is used to encrypt the paramete
- C. Assign this IAM role to the EC2 instance.
- D. Create an IAM policy that allows read access to the Parameter Store paramete
- E. Allow Decrypt access to an AWS Key Management Service (AWS KMS) key that is used to encrypt the paramete
- F. Assign this IAM policy to the EC2 instance.
- G. Create an IAM trust relationship between the Parameter Store parameter and the EC2 instanc
- H. Specify Amazon RDS as a principal in the trust policy.
- I. Create an IAM trust relationship between the DB instance and the EC2 instanc
- J. Specify Systems Manager as a principal in the trust policy.

Answer: B

Explanation:

https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_aws-services-that-work-with-iam.html

NEW QUESTION 110

- (Exam Topic 2)

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

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

Answer: A

Explanation:

(<https://aws.amazon.com/blogs/security/how-to-restrict-amazon-s3-bucket-access-to-a-specific-iam-role/>)

NEW QUESTION 113

- (Exam Topic 2)

An online retail company has more than 50 million active customers and receives more than 25,000 orders each day. The company collects purchase data for customers and stores this data in Amazon S3. Additional customer data is stored in Amazon RDS.

The company wants to make all the data available to various teams so that the teams can perform analytics.

The solution must provide the ability to manage fine-grained permissions for the data and must minimize operational overhead.

Which solution will meet these requirements?

- A. Migrate the purchase data to write directly to Amazon RDS
- B. Use RDS access controls to limit access.
- C. Schedule an AWS Lambda function to periodically copy data from Amazon RDS to Amazon S3. Create an AWS Glue crawler
- D. Use Amazon Athena to query the data
- E. Use S3 policies to limit access.
- F. Create a data lake by using AWS Lake Formation
- G. Create an AWS Glue JDBC connection to Amazon RDS
- H. Register the S3 bucket in Lake Formation
- I. Use Lake Formation access controls to limit access.
- J. Create an Amazon Redshift cluster
- K. Schedule an AWS Lambda function to periodically copy data from Amazon S3 and Amazon RDS to Amazon Redshift
- L. Use Amazon Redshift access controls to limit access.

Answer: D

NEW QUESTION 117

- (Exam Topic 2)

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

What should a solutions architect do to meet these requirements?

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

Answer: B

NEW QUESTION 122

- (Exam Topic 2)

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: D

NEW QUESTION 125

- (Exam Topic 2)

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 instance
- 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 130

- (Exam Topic 2)

A company is building a web-based application running on Amazon EC2 instances in multiple Availability Zones. The web application will provide access to a repository of text documents totaling about 900 TB in size. The company anticipates that the web application will experience periods of high demand. A solutions architect must ensure that the storage component for the text documents can scale to meet the demand of the application at all times. The company is concerned about the overall cost of the solution.

Which storage solution meets these requirements MOST cost-effectively?

- A. Amazon Elastic Block Store (Amazon EBS)
- B. Amazon Elastic File System (Amazon EFS)
- C. Amazon Elasticsearch Service (Amazon ES)
- D. Amazon S3

Answer: D

Explanation:

Amazon S3 is cheapest and can be accessed from anywhere.

NEW QUESTION 134

- (Exam Topic 2)

A company has an AWS account used for software engineering. The AWS account has access to the company's on-premises data center through a pair of AWS Direct Connect connections. All non-VPC traffic routes to the virtual private gateway.

A development team recently created an AWS Lambda function through the console. The development team needs to allow the function to access a database that runs in a private subnet in the company's data center.

Which solution will meet these requirements?

- A. Configure the Lambda function to run in the VPC with the appropriate security group.
- B. Set up a VPN connection from AWS to the data center
- C. Route the traffic from the Lambda function through the VPN.
- D. Update the route tables in the VPC to allow the Lambda function to access the on-premises data center through Direct Connect.
- E. Create an Elastic IP address
- F. Configure the Lambda function to send traffic through the Elastic IP address without an elastic network interface.

Answer: A

Explanation:

<https://docs.aws.amazon.com/lambda/latest/dg/configuration-vpc.html#vpc-managing-eni>

NEW QUESTION 139

- (Exam Topic 2)

A company owns an asynchronous API that is used to ingest user requests and, based on the request type, dispatch requests to the appropriate microservice for processing. The company is using Amazon API Gateway to deploy the API front end, and an AWS Lambda function that invokes Amazon DynamoDB to store user requests before dispatching them to the processing microservices.

The company provisioned as much DynamoDB throughput as its budget allows, but the company is still experiencing availability issues and is losing user requests. What should a solutions architect do to address this issue without impacting existing users?

- A. Add throttling on the API Gateway with server-side throttling limits.
- B. Use DynamoDB Accelerator (DAX) and Lambda to buffer writes to DynamoDB.
- C. Create a secondary index in DynamoDB for the table with the user requests.
- D. Use the Amazon Simple Queue Service (Amazon SQS) queue and Lambda to buffer writes to DynamoDB.

Answer: D

Explanation:

By using an SQS queue and Lambda, the solutions architect can decouple the API front end from the processing microservices and improve the overall scalability and availability of the system. The SQS queue acts as a buffer, allowing the API front end to continue accepting user requests even if the processing microservices are experiencing high workloads or are temporarily unavailable. The Lambda function can then retrieve requests from the SQS queue and write them to DynamoDB, ensuring that all user requests are stored and processed. This approach allows the company to scale the processing microservices independently from the API front end, ensuring that the API remains available to users even during periods of high demand.

NEW QUESTION 142

- (Exam Topic 2)

A company is concerned about the security of its public web application due to recent web attacks. The application uses an Application Load Balancer (ALB). A

solutions architect must reduce the risk of DDoS attacks against the application.
What should the solutions architect do to meet this requirement?

- A. Add an Amazon Inspector agent to the ALB.
- B. Configure Amazon Macie to prevent attacks.
- C. Enable AWS Shield Advanced to prevent attacks.
- D. Configure Amazon GuardDuty to monitor the ALB.

Answer: C

NEW QUESTION 145

- (Exam Topic 2)

A company has a highly dynamic batch processing job that uses many Amazon EC2 instances to complete it. The job is stateless in nature, can be started and stopped at any given time with no negative impact, and typically takes upwards of 60 minutes total to complete. The company has asked a solutions architect to design a scalable and cost-effective solution that meets the requirements of the job.
What should the solutions architect recommend?

- A. Implement EC2 Spot Instances
- B. Purchase EC2 Reserved Instances
- C. Implement EC2 On-Demand Instances
- D. Implement the processing on AWS Lambda

Answer: A

NEW QUESTION 146

- (Exam Topic 2)

A company needs to save the results from a medical trial to an Amazon S3 repository. The repository must allow a few scientists to add new files and must restrict all other users to read-only access. No users can have the ability to modify or delete any files in the repository. The company must keep every file in the repository for a minimum of 1 year after its creation date.
Which solution will meet these requirements?

- A. Use S3 Object Lock In governance mode with a legal hold of 1 year
- B. Use S3 Object Lock in compliance mode with a retention period of 365 days.
- C. Use an IAM role to restrict all users from deleting or changing objects in the S3 bucket Use an S3 bucket policy to only allow the IAM role
- D. Configure the S3 bucket to invoke an AWS Lambda function every time an object is added Configure the function to track the hash of the saved object to that modified objects can be marked accordingly

Answer: C

NEW QUESTION 148

- (Exam Topic 2)

A company is planning to move its data to an Amazon S3 bucket. The data must be encrypted when it is stored in the S3 bucket. Additionally, the encryption key must be automatically rotated every year.
Which solution will meet these requirements with the LEAST operational overhead?

- A. Move the data to the S3 bucket
- B. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3). Use the built-in key rotation behavior of SSE-S3 encryption keys.
- C. Create an AWS Key Management Service (AWS KMS) customer managed key
- D. Enable automatic key rotation
- E. Set the S3 bucket's default encryption behavior to use the customer managed KMS key
- F. Move the data to the S3 bucket.
- G. Create an AWS Key Management Service (AWS KMS) customer managed key
- H. Set the S3 bucket's default encryption behavior to use the customer managed KMS key
- I. Move the data to the S3 bucket
- J. Manually rotate the KMS key every year.
- K. Encrypt the data with customer key material before moving the data to the S3 bucket
- L. Create an AWS Key Management Service (AWS KMS) key without key material
- M. Import the customer key material into the KMS key
- N. Enable automatic key rotation.

Answer: C

NEW QUESTION 150

- (Exam Topic 2)

A company has two applications: a sender application that sends messages with payloads to be processed and a processing application intended to receive the messages with payloads. The company wants to implement an AWS service to handle messages between the two applications. The sender application can send about 1,000 messages each hour. The messages may take up to 2 days to be processed. If the messages fail to process, they must be retained so that they do not impact the processing of any remaining messages.
Which solution meets these requirements and is the MOST operationally efficient?

- A. Set up an Amazon EC2 instance running a Redis database
- B. Configure both applications to use the instance
- C. Store, process, and delete the messages, respectively.
- D. Use an Amazon Kinesis data stream to receive the messages from the sender application
- E. Integrate the processing application with the Kinesis Client Library (KCL).
- F. Integrate the sender and processor applications with an Amazon Simple Queue Service (Amazon SQS) queue
- G. Configure a dead-letter queue to collect the messages that failed to process.
- H. Subscribe the processing application to an Amazon Simple Notification Service (Amazon SNS) topic to receive notifications to process
- I. Integrate the sender application to write to the SNS topic.

Answer: C

Explanation:

<https://aws.amazon.com/blogs/compute/building-loosely-coupled-scalable-c-applications-with-amazon-sqs-and-https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqs-dead-letter-queues.htm>

NEW QUESTION 152

- (Exam Topic 2)

A company is building a containerized application on premises and decides to move the application to AWS. The application will have thousands of users soon after it is deployed. The company is unsure how to manage the deployment of containers at scale. The company needs to deploy the containerized application in a highly available architecture that minimizes operational overhead.

Which solution will meet these requirements?

- A. Store container images in an Amazon Elastic Container Registry (Amazon ECR) repository
- B. Use an Amazon Elastic Container Service (Amazon ECS) cluster with the AWS Fargate launch type to run the container
- C. Use target tracking to scale automatically based on demand.
- D. Store container images in an Amazon Elastic Container Registry (Amazon ECR) repository
- E. Use an Amazon Elastic Container Service (Amazon ECS) cluster with the Amazon EC2 launch type to run the container
- F. Use target tracking to scale automatically based on demand.
- G. Store container images in a repository that runs on an Amazon EC2 instance
- H. Run the containers on EC2 instances that are spread across multiple Availability Zones
- I. Monitor the average CPU utilization in Amazon CloudWatch
- J. Launch new EC2 instances as needed
- K. Create an Amazon EC2 Amazon Machine Image (AMI) that contains the container image. Launch EC2 instances in an Auto Scaling group across multiple Availability Zones
- L. Use an Amazon CloudWatch alarm to scale out EC2 instances when the average CPU utilization threshold is breached.

Answer: A

NEW QUESTION 156

- (Exam Topic 2)

An e-commerce company hosts its analytics application in the AWS Cloud. The application generates about 300 MB of data each month. The data is stored in JSON format. The company is evaluating a disaster recovery solution to back up the data. The data must be accessible in milliseconds if it is needed, and the data must be kept for 30 days.

Which solution meets these requirements MOST cost-effectively?

- A. Amazon OpenSearch Service (Amazon Elasticsearch Service)
- B. Amazon S3 Glacier
- C. Amazon S3 Standard
- D. Amazon RDS for PostgreSQL

Answer: C

NEW QUESTION 157

- (Exam Topic 2)

A media company is evaluating the possibility of moving its systems to the AWS Cloud. The company needs at least 10 TB of storage with the maximum possible I/O performance for video processing, 300 TB of very durable storage for storing media content, and 900 TB of storage to meet requirements for archival media that is not in use anymore.

Which set of services should a solutions architect recommend to meet these requirements?

- A. Amazon EBS for maximum performance, Amazon S3 for durable data storage, and Amazon S3 Glacier for archival storage
- B. Amazon EBS for maximum performance, Amazon EFS for durable data storage and Amazon S3 Glacier for archival storage
- C. Amazon EC2 instance store for maximum performance
- D. Amazon EFS for durable data storage and Amazon S3 for archival storage
- E. Amazon EC2 Instance store for maximum performance
- F. Amazon S3 for durable data storage, and Amazon S3 Glacier for archival storage

Answer: A

Explanation:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

NEW QUESTION 160

- (Exam Topic 2)

A company's application is having performance issues. The application is stateful and needs to complete in-memory tasks on Amazon EC2 instances. The company used AWS CloudFormation to deploy infrastructure and used the M5 EC2 Instance family. As traffic increased, the application performance degraded. Users are reporting delays when they attempt to access the application.

Which solution will resolve these issues in the MOST operationally efficient way?

- A. Replace the EC2 instances with T3 EC2 instances that run in an Auto Scaling group
- B. Make the changes by using the AWS Management Console.
- C. Modify the CloudFormation templates to run the EC2 instances in an Auto Scaling group
- D. Increase the desired capacity and the maximum capacity of the Auto Scaling group manually when an increase is necessary
- E. Modify the CloudFormation template
- F. Replace the EC2 instances with R5 EC2 instances
- G. Use Amazon CloudWatch built-in EC2 memory metrics to track the application performance for future capacity planning.
- H. Modify the CloudFormation template
- I. Replace the EC2 instances with R5 EC2 instances

J. Deploy the Amazon CloudWatch agent on the EC2 instances to generate custom application latency metrics for future capacity planning.

Answer: D

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/cloudwatch-memory-metrics-ec2/>

NEW QUESTION 163

- (Exam Topic 2)

Organizers for a global event want to put daily reports online as static HTML pages. The pages are expected to generate millions of views from users around the world. The files are stored in an Amazon S3 bucket. A solutions architect has been asked to design an efficient and effective solution.

Which action should the solutions architect take to accomplish this?

- A. Generate presigned URLs for the files.
- B. Use cross-Region replication to all Regions.
- C. Use the geoproximity feature of Amazon Route 53.
- D. Use Amazon CloudFront with the S3 bucket as its origin.

Answer: D

NEW QUESTION 166

- (Exam Topic 2)

An application runs on Amazon EC2 instances across multiple Availability Zones. The instances run in an Amazon EC2 Auto Scaling group behind an Application Load Balancer. The application performs best when the CPU utilization of the EC2 instances is at or near 40%.

What should a solutions architect do to maintain the desired performance across all instances in the group?

- A. Use a simple scaling policy to dynamically scale the Auto Scaling group.
- B. Use a target tracking policy to dynamically scale the Auto Scaling group.
- C. Use an AWS Lambda function to update the desired Auto Scaling group capacity.
- D. Use scheduled scaling actions to scale up and scale down the Auto Scaling group.

Answer: B

Explanation:

<https://docs.aws.amazon.com/autoscaling/application/userguide/application-auto-scaling-target-tracking.html>

NEW QUESTION 167

- (Exam Topic 2)

A company uses AWS Organizations to create dedicated AWS accounts for each business unit to manage each business unit's account independently upon request. The root email recipient missed a notification that was sent to the root user email address of one account. The company wants to ensure that all future notifications are not missed. Future notifications must be limited to account administrators.

Which solution will meet these requirements?

- A. Configure the company's email server to forward notification email messages that are sent to the AWS account root user email address to all users in the organization.
- B. Configure all AWS account root user email addresses as distribution lists that go to a few administrators who can respond to alerts.
- C. Configure AWS account alternate contacts in the AWS Organizations console or programmatically.
- D. Configure all AWS account root user email messages to be sent to one administrator who is responsible for monitoring alerts and forwarding those alerts to the appropriate groups.
- E. Configure all existing AWS accounts and all newly created accounts to use the same root user email address.
- F. Configure AWS account alternate contacts in the AWS Organizations console or programmatically.

Answer: D

NEW QUESTION 168

- (Exam Topic 2)

A company has an event-driven application that invokes AWS Lambda functions up to 800 times each minute with varying runtimes. The Lambda functions access data that is stored in an Amazon Aurora MySQL DB cluster. The company is noticing connection timeouts as user activity increases. The database shows no signs of being overloaded. CPU, memory, and disk access metrics are all low.

Which solution will resolve this issue with the LEAST operational overhead?

- A. Adjust the size of the Aurora MySQL nodes to handle more connections.
- B. Configure retry logic in the Lambda functions for attempts to connect to the database.
- C. Set up Amazon ElastiCache for Redis to cache commonly read items from the database.
- D. Configure the Lambda functions to connect to ElastiCache for reads.
- E. Add an Aurora Replica as a reader node.
- F. Configure the Lambda functions to connect to the reader endpoint of the DB cluster rather than to the writer endpoint.
- G. Use Amazon ROS Proxy to create a proxy.
- H. Set the DB cluster as the target database. Configure the Lambda functions to connect to the proxy rather than to the DB cluster.

Answer: D

NEW QUESTION 172

- (Exam Topic 2)

A company has a dynamic web application hosted on two Amazon EC2 instances. The company has its own SSL certificate, which is on each instance to perform SSL termination.

There has been an increase in traffic recently, and the operations team determined that SSL encryption and decryption is causing the compute capacity of the web servers to reach their maximum limit.

What should a solutions architect do to increase the application's performance?

- A. Create a new SSL certificate using AWS Certificate Manager (ACM) install the ACM certificate on each instance
- B. Create an Amazon S3 bucket Migrate the SSL certificate to the S3 bucket Configure the EC2 instances to reference the bucket for SSL termination
- C. Create another EC2 instance as a proxy server Migrate the SSL certificate to the new instance and configure it to direct connections to the existing EC2 instances
- D. Import the SSL certificate into AWS Certificate Manager (ACM) Create an Application Load Balancer with an HTTPS listener that uses the SSL certificate from ACM

Answer: D

Explanation:

<https://aws.amazon.com/certificate-manager/>:

"With AWS Certificate Manager, you can quickly request a certificate, deploy it on ACM-integrated AWS resources, such as Elastic Load Balancers, Amazon CloudFront distributions, and APIs on API Gateway, and let AWS Certificate Manager handle certificate renewals. It also enables you to create private certificates for your internal resources and manage the certificate lifecycle centrally."

NEW QUESTION 173

- (Exam Topic 2)

A company runs a production application on a fleet of Amazon EC2 instances. The application reads the data from an Amazon SQS queue and processes the messages in parallel. The message volume is unpredictable and often has intermittent traffic. This application should continually process messages without any downtime.

Which solution meets these requirements MOST cost-effectively?

- A. Use Spot Instances exclusively to handle the maximum capacity required.
- B. Use Reserved Instances exclusively to handle the maximum capacity required.
- C. Use Reserved Instances for the baseline capacity and use Spot Instances to handle additional capacity.
- D. Use Reserved Instances for the baseline capacity and use On-Demand Instances to handle additional capacity.

Answer: D

Explanation:

We recommend that you use On-Demand Instances for applications with short-term, irregular workloads that cannot be interrupted.

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-on-demand-instances.html>

NEW QUESTION 175

- (Exam Topic 2)

An entertainment company is using Amazon DynamoDB to store media metadata. The application is read intensive and experiencing delays. The company does not have staff to handle additional operational overhead and needs to improve the performance efficiency of DynamoDB without reconfiguring the application.

What should a solutions architect recommend to meet this requirement?

- A. Use Amazon ElastiCache for Redis.
- B. Use Amazon DynamoDB Accelerator (DAX).
- C. Replicate data by using DynamoDB global tables.
- D. Use Amazon ElastiCache for Memcached with Auto Discovery enabled.

Answer: B

Explanation:

<https://aws.amazon.com/dynamodb/dax/>

NEW QUESTION 176

- (Exam Topic 2)

A reporting team receives files each day in an Amazon S3 bucket. The reporting team manually reviews and copies the files from this initial S3 bucket to an analysis S3 bucket each day at the same time to use with Amazon QuickSight. Additional teams are starting to send more files in larger sizes to the initial S3 bucket.

The reporting team wants to move the files automatically analysis S3 bucket as the files enter the initial S3 bucket. The reporting team also wants to use AWS Lambda functions to run pattern-matching code on the copied data. In addition, the reporting team wants to send the data files to a pipeline in Amazon SageMaker Pipelines.

What should a solutions architect do to meet these requirements with the LEAST operational overhead?

- A. Create a Lambda function to copy the files to the analysis S3 bucket
- B. Create an S3 event notification for the analysis S3 bucket
- C. Configure Lambda and SageMaker Pipelines as destinations of the event notification
- D. Configure s3objectCreated:Put as the event type.
- E. Create a Lambda function to copy the files to the analysis S3 bucket
- F. Configure the analysis S3 bucket to send event notifications to Amazon EventBridge (Amazon CloudWatch Events). Configure an ObjectCreated rule in EventBridge (CloudWatch Events). Configure Lambda and SageMaker Pipelines as targets for the rule.
- G. Configure S3 replication between the S3 bucket
- H. Create an S3 event notification for the analysis S3 bucket
- I. Configure Lambda and SageMaker Pipelines as destinations of the event notification
- J. Configure s3objectCreated:Put as the event type.
- K. Configure S3 replication between the S3 bucket
- L. Configure the analysis S3 bucket to send event notifications to Amazon EventBridge (Amazon CloudWatch Events). Configure an ObjectCreated rule in EventBridge (CloudWatch Events). Configure Lambda and SageMaker Pipelines as targets for the rule.

Answer: A

NEW QUESTION 177

- (Exam Topic 2)

A company wants to move its application to a serverless solution. The serverless solution needs to analyze existing and new data by using SL. The company stores the data in an Amazon S3 bucket. The data requires encryption and must be replicated to a different AWS Region.

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

- A. Create a new S3 bucket
- B. Load the data into the new S3 bucket
- C. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region
- D. Use server-side encryption with AWS KMS multi-Region keys (SSE-KMS). Use Amazon Athena to query the data.
- E. Create a new S3 bucket
- F. Load the data into the new S3 bucket
- G. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region
- H. Use server-side encryption with AWS KMS multi-Region keys (SSE-KMS). Use Amazon RDS to query the data.
- I. Load the data into the existing S3 bucket
- J. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region
- K. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3). Use Amazon Athena to query the data.
- L. Load the data into the existing S3 bucket
- M. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Region
- N. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3). Use Amazon RDS to query the data.

Answer: A

NEW QUESTION 180

- (Exam Topic 2)

A company wants to measure the effectiveness of its recent marketing campaigns. The company performs batch processing on csv files of sales data and stores the results in an Amazon S3 bucket once every hour. The S3 bucket contains terabytes of objects. The company runs one-time queries in Amazon Athena to determine which products are most popular on a particular date for a particular region. Queries sometimes fail or take longer than expected to finish.

Which actions should a solutions architect take to improve the query performance and reliability? (Select TWO.)

- A. Reduce the S3 object sizes to less than 128 MB
- B. Partition the data by date and region in Amazon S3
- C. Store the files as large, single objects in Amazon S3.
- D. Use Amazon Kinesis Data Analytics to run the queries as part of the batch processing operation
- E. Use an AWS Glue extract, transform, and load (ETL) process to convert the csv files into Apache Parquet format.

Answer: CE

NEW QUESTION 181

- (Exam Topic 2)

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 182

- (Exam Topic 2)

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
- C. Use Amazon Athena to query the data.
- D. Create an Auto Scaling group of Amazon EC2 instances to run a custom application that processes the scanned files and extracts the medical information.
- E. Create an AWS Lambda function that runs when new documents are uploaded
- F. Use Amazon Rekognition to convert the documents to raw text
- G. Use Amazon Transcribe Medical to detect and extract relevant medical information from the text.
- H. Create an AWS Lambda function that runs when new documents are uploaded
- I. Use Amazon Textract to convert the documents to raw text
- J. Use Amazon Comprehend Medical to detect and extract relevant medical information from the text.

Answer: DE

NEW QUESTION 186

- (Exam Topic 2)

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

Explanation:

You need S3 to be able to archive the logs after one month. Cannot do that with CloudWatch Logs.

NEW QUESTION 190

- (Exam Topic 2)

A company has an ecommerce checkout workflow that writes an order to a database and calls a service to process the payment. Users are experiencing timeouts during the checkout process. When users resubmit the checkout form, multiple unique orders are created for the same desired transaction. How should a solutions architect refactor this workflow to prevent the creation of multiple orders?

- A. Configure the web application to send an order message to Amazon Kinesis Data Firehose
- B. Set the payment service to retrieve the message from Kinesis Data Firehose and process the order.
- C. Create a rule in AWS CloudTrail to invoke an AWS Lambda function based on the logged application path request Use Lambda to query the database, call the payment service, and pass in the order information.
- D. Store the order in the database
- E. Send a message that includes the order number to Amazon Simple Notification Service (Amazon SNS). Set the payment service to poll Amazon SNS
- F. retrieve the message, and process the order.
- G. Store the order in the database
- H. Send a message that includes the order number to an Amazon Simple Queue Service (Amazon SQS) FIFO queue
- I. Set the payment service to retrieve the message and process the order
- J. Delete the message from the queue.

Answer: D

Explanation:

This approach ensures that the order creation and payment processing steps are separate and atomic. By sending the order information to an SQS FIFO queue, the payment service can process the order one at a time and in the order they were received. If the payment service is unable to process an order, it can be retried later, preventing the creation of multiple orders. The deletion of the message from the queue after it is processed will prevent the same message from being processed multiple times.

NEW QUESTION 193

- (Exam Topic 2)

A company runs an application using Amazon ECS. The application creates resized versions of an original image and then makes Amazon S3 API calls to store the resized images in Amazon S3.

How can a solutions architect ensure that the application has permission to access Amazon S3?

- A. Update the S3 role in AWS IAM to allow read/write access from Amazon ECS, and then relaunch the container.
- B. Create an IAM role with S3 permissions, and then specify that role as the taskRoleArn in the task definition.
- C. Create a security group that allows access from Amazon ECS to Amazon S3, and update the launch configuration used by the ECS cluster.
- D. Create an IAM user with S3 permissions, and then relaunch the Amazon EC2 instances for the ECS cluster while logged in as this account.

Answer: B

NEW QUESTION 194

- (Exam Topic 2)

A corporation has recruited a new cloud engineer who should not have access to the CompanyConfidential Amazon S3 bucket. The cloud engineer must have read and write permissions on an S3 bucket named AdminTools.

Which IAM policy will satisfy these criteria?

- A. Text, letter Description automatically generated


```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3:ListBucket",
      "Resource": "arn:aws:s3:::AdminTools"
    },
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject" ],
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::CompanyConfidential"
      ]
    }
  ]
}
```

B. Text Description automatically generated

```
"Version": "2012-10-17",
"Statement": [
  {
    "Effect": "Allow",
    "Action": "s3:ListBucket",
    "Resource": [
      "arn:aws:s3:::AdminTools",
      "arn:aws:s3:::CompanyConfidential/*"
    ]
  },
  {
    "Effect": "Allow",
    "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
    "Resource": "arn:aws:s3:::AdminTools/*"
  },
  {
    "Effect": "Deny",
    "Action": "s3:*",
    "Resource": "arn:aws:s3:::CompanyConfidential"
  }
]
```

C. Text, application Description automatically generated

```
"Version": "2012-10-17",
"Statement": [
  {
    "Effect": "Allow",
    "Action": [ "s3:GetObject", "s3:PutObject" ],
    "Resource": "arn:aws:s3:::AdminTools/*"
  },
  {
    "Effect": "Deny",
    "Action": "s3:*",
    "Resource": [
      "arn:aws:s3:::CompanyConfidential/*",
      "arn:aws:s3:::CompanyConfidential"
    ]
  }
]
```

D. Text, application Description automatically generated

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "s3:ListBucket",
      "Resource": "arn:aws:s3:::AdminTools/*"
    },
    {
      "Effect": "Allow",
      "Action": [ "s3:GetObject", "s3:PutObject", "s3:DeleteObject" ],
      "Resource": "arn:aws:s3:::AdminTools/"
    },
    {
      "Effect": "Deny",
      "Action": "s3:*",
      "Resource": [
        "arn:aws:s3:::CompanyConfidential",
        "arn:aws:s3:::CompanyConfidential/*",
        "arn:aws:s3:::AdminTools/*"
      ]
    }
  ]
}
```

Answer: A

Explanation:

https://docs.amazonaws.cn/en_us/IAM/latest/UserGuide/reference_policies_examples_s3_rw-bucket.html

NEW QUESTION 198

- (Exam Topic 2)

A company has a multi-tier application that runs six front-end web servers in an Amazon EC2 Auto Scaling group in a single Availability Zone behind an Application Load Balancer (ALB). A solutions architect needs to modify the infrastructure to be highly available without modifying the application.

Which architecture should the solutions architect choose that provides high availability?

- A. Create an Auto Scaling group that uses three Instances across each of two Regions.
- B. Modify the Auto Scaling group to use three instances across each of two Availability Zones.
- C. Create an Auto Scaling template that can be used to quickly create more instances in another Region.
- D. Change the ALB in front of the Amazon EC2 instances in a round-robin configuration to balance traffic to the web tier.

Answer: B

Explanation:

High availability can be enabled for this architecture quite simply by modifying the existing Auto Scaling group to use multiple availability zones. The ASG will automatically balance the load so you don't actually need to specify the instances per AZ.

NEW QUESTION 201

- (Exam Topic 2)

A company runs a stateless web application in production on a group of Amazon EC2 On-Demand Instances behind an Application Load Balancer. The application experiences heavy usage during an 8-hour period each business day. Application usage is moderate and steady overnight. Application usage is low during weekends.

The company wants to minimize its EC2 costs without affecting the availability of the application. Which solution will meet these requirements?

- A. Use Spot Instances for the entire workload.
- B. Use Reserved instances for the baseline level of usage. Use Spot Instances for any additional capacity that the application needs.
- C. Use On-Demand Instances for the baseline level of usage.
- D. Use Spot Instances for any additional capacity that the application needs.
- E. Use Dedicated Instances for the baseline level of usage.
- F. Use On-Demand Instances for any additional capacity that the application needs.

Answer: B

NEW QUESTION 205

- (Exam Topic 3)

A company is migrating a Linux-based web server group to AWS. The web servers must access files in a shared file store for some content. The company must not make any changes to the application.

What should a solutions architect do to meet these requirements?

- A. Create an Amazon S3 Standard bucket with access to the web servers.
- B. Configure an Amazon CloudFront distribution with an Amazon S3 bucket as the origin.
- C. Create an Amazon Elastic File System (Amazon EFS) file system.
- D. Mount the EFS file system on all web servers.
- E. Configure a General Purpose SSD (gp3) Amazon Elastic Block Store (Amazon EBS) volume.
- F. Mount the EBS volume to all web servers.

Answer: C

NEW QUESTION 207

- (Exam Topic 3)

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

Answer: C

NEW QUESTION 209

- (Exam Topic 3)

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: C

Explanation:

<https://docs.aws.amazon.com/cli/latest/reference/transfer/describe-server.html>

NEW QUESTION 214

- (Exam Topic 3)

A company needs to transfer 600 TB of data from its on-premises network-attached storage (NAS) system to the AWS Cloud. The data transfer must be complete within 2 weeks. The data is sensitive and must be encrypted in transit. The company's internet connection can support an upload speed of 100 Mbps.

Which solution meets these requirements MOST cost-effectively?

- A. Use Amazon S3 multi-part upload functionality to transfer the files over HTTPS.
- B. Create a VPN connection between the on-premises NAS system and the nearest AWS Region. Transfer the data over the VPN connection.
- C. Use the AWS Snow Family console to order several AWS Snowball Edge Storage Optimized devices. Use the devices to transfer the data to Amazon S3.
- D. Set up a 10 Gbps AWS Direct Connect connection between the company location and the nearest AWS Region. Transfer the data over a VPN connection into the Region to store the data in Amazon S3.

Answer: D

NEW QUESTION 215

- (Exam Topic 3)

A company needs to create an Amazon Elastic Kubernetes Service (Amazon EKS) cluster to host a digital media streaming application. The EKS cluster will use a managed node group that is backed by Amazon Elastic Block Store (Amazon EBS) volumes for storage. The company must encrypt all data at rest by using a customer managed key that is stored in AWS Key Management Service (AWS KMS).

Which combination of actions will meet this requirement with the LEAST operational overhead? (Select TWO.)

- A. Use a Kubernetes plugin that uses the customer managed key to perform data encryption.
- B. After creation of the EKS cluster, locate the EBS volume.
- C. Enable encryption by using the customer managed key.
- D. Enable EBS encryption by default in the AWS Region where the EKS cluster will be created.
- E. Select the customer managed key as the default key.
- F. Create the EKS cluster. Create an IAM role that has a policy that grants permission to the customer managed key.
- G. Associate the role with the EKS cluster.
- H. Store the customer managed key as a Kubernetes secret in the EKS cluster.
- I. Use the customer managed key to encrypt the EBS volumes.

Answer: AD

NEW QUESTION 216

- (Exam Topic 3)

A company wants to create an application to store employee data in a hierarchical structured relationship. The company needs a minimum-latency response to

high-traffic queries for the employee data and must protect any sensitive data. The company also need to receive monthly email messages if any financial information is present in the employee data.

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

- A. Use Amazon Redshift to store the employee data in hierarchies
- B. Unload the data to Amazon S3 every month.
- C. Use Amazon DynamoDB to store the employee data in hierarchies Export the data to Amazon S3 every month.
- D. Configure Amazon Macie for the AWS account Integrate Macie with Amazon EventBridge to send monthly events to AWS Lambda.
- E. Use Amazon Athena to analyze the employee data in Amazon S3 integrate Athena with Amazon QuickSight to publish analysis dashboards and share the dashboards with users.
- F. Configure Amazon Macie for the AWS account
- G. Integrate Macie with Amazon EventBridge to send monthly notifications through an Amazon Simple Notification Service (Amazon SNS) subscription.

Answer: BE

NEW QUESTION 221

- (Exam Topic 3)

A company needs to export its database once a day to Amazon S3 for other teams to access. The exported object size varies between 2 GB and 5 GB. The S3 access pattern for the data is variable and changes rapidly. The data must be immediately available and must remain accessible for up to 3 months. The company needs the most cost-effective solution that will not increase retrieval time

Which S3 storage class should the company use to meet these requirements?

- A. S3 Intelligent-Tiering
- B. S3 Glacier Instant Retrieval
- C. S3 Standard
- D. S3 Standard-Infrequent Access (S3 Standard-IA)

Answer: D

Explanation:

S3 Intelligent-Tiering is a cost-optimized storage class that automatically moves data to the most cost-effective access tier based on changing access patterns. Although it offers cost savings, it also introduces additional latency and retrieval time into the data retrieval process, which may not meet the requirement of "immediately available" data. On the other hand, S3 Standard-Infrequent Access (S3 Standard-IA) provides low cost storage with low latency and high throughput performance. It is designed for infrequently accessed data that can be recreated if lost, and can be retrieved in a timely manner if required. It is a cost-effective solution that meets the requirement of immediately available data and remains accessible for up to 3 months.

NEW QUESTION 224

- (Exam Topic 3)

A company has deployed a Java Spring Boot application as a pod that runs on Amazon Elastic Kubernetes Service (Amazon EKS) in private subnets. The application needs to write data to an Amazon DynamoDB table. A solutions architect must ensure that the application can interact with the DynamoDB table without exposing traffic to the internet.

Which combination of steps should the solutions architect take to accomplish this goal? (Choose two.)

- A. Attach an IAM role that has sufficient privileges to the EKS pod.
- B. Attach an IAM user that has sufficient privileges to the EKS pod.
- C. Allow outbound connectivity to the DynamoDB table through the private subnets' network ACLs.
- D. Create a VPC endpoint for DynamoDB.
- E. Embed the access keys in the Java Spring Boot code.

Answer: AD

Explanation:

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/vpc-endpoints-dynamodb.html> <https://aws.amazon.com/about-aws/whats-new/2019/09/amazon-eks-adds-support-to-assign-iam-permissions-to->

NEW QUESTION 226

- (Exam Topic 3)

An ecommerce company is building a distributed application that involves several serverless functions and AWS services to complete order-processing tasks. These tasks require manual approvals as part of the workflow A solutions architect needs to design an architecture for the order-processing application The solution must be able to combine multiple AWS Lambda functions into responsive serverless applications The solution also must orchestrate data and services that run on Amazon EC2 instances, containers, or on-premises servers

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

- A. Use AWS Step Functions to build the application.
- B. Integrate all the application components in an AWS Glue job
- C. Use Amazon Simple Queue Service (Amazon SQS) to build the application
- D. Use AWS Lambda functions and Amazon EventBridge (Amazon CloudWatch Events) events to build the application

Answer: D

NEW QUESTION 231

- (Exam Topic 3)

A company is implementing new data retention policies for all databases that run on Amazon RDS DB instances. The company must retain daily backups for a minimum period of 2 years. The backups must be consistent and restorable.

Which solution should a solutions architect recommend to meet these requirements?

- A. Create a backup vault in AWS Backup to retain RDS backup
- B. Create a new backup plan with a daily schedule and an expiration period of 2 years after creation
- C. Assign the RDS DB instances to the backup plan.

- D. Configure a backup window for the RDS DB instances for daily snapshot
- E. Assign a snapshot retention policy of 2 years to each RDS DB instanc
- F. Use Amazon Data Lifecycle Manager (Amazon DLM) to schedule snapshot deletions.
- G. Configure database transaction logs to be automatically backed up to Amazon CloudWatch Logs with an expiration period of 2 years.
- H. Configure an AWS Database Migration Service (AWS DMS) replication tas
- I. Deploy a replication instance, and configure a change data capture (CDC) task to stream database changes to Amazon S3 as the target
- J. Configure S3 Lifecycle policies to delete the snapshots after 2 years.

Answer: A

NEW QUESTION 233

- (Exam Topic 3)

A research laboratory needs to process approximately 8 TB of data. The laboratory requires sub-millisecond latencies and a minimum throughput of 6 GBps for the storage subsystem. Hundreds of Amazon EC2 instances that run Amazon Linux will distribute and process the data. Which solution will meet the performance requirements?

- A. Create an Amazon FSx for NetApp ONTAP file system. Set each volume's tiering policy to ALL. Import the raw data into the file system. Mount the file system on the EC2 instances.
- B. Create an Amazon S3 bucket to store the raw data. Create an Amazon FSx for Lustre file system that uses persistent SSD storage. Select the option to import data from and export data to Amazon S3. Mount the file system on the EC2 instances.
- C. Create an Amazon S3 bucket to store the raw data. Create an Amazon FSx for Lustre file system that uses persistent HDD storage. Select the option to import data from and export data to Amazon S3. Mount the file system on the EC2 instances.
- D. Create an Amazon FSx for NetApp ONTAP file system. Set each volume's tiering policy to NON.
- E. Import the raw data into the file system. Mount the file system on the EC2 instances.

Answer: B

Explanation:

Create an Amazon S3 bucket to store the raw data. Create an Amazon FSx for Lustre file system that uses persistent SSD storage. Select the option to import data from and export data to Amazon S3. Mount the file system on the EC2 instances. Amazon FSx for Lustre uses SSD storage for sub-millisecond latencies and up to 6 GBps throughput, and can import data from and export data to Amazon S3. Additionally, the option to select persistent SSD storage will ensure that the data is stored on the disk and not lost if the file system is stopped.

NEW QUESTION 234

- (Exam Topic 3)

A company hosts a multi-tier web application that uses an Amazon Aurora MySQL DB cluster for storage. The application tier is hosted on Amazon EC2 instances. The company's IT security guidelines mandate that the database credentials be encrypted and rotated every 14 days. What should a solutions architect do to meet this requirement with the LEAST operational effort?

- A. Create a new AWS Key Management Service (AWS KMS) encryption key. Use AWS Secrets Manager to create a new secret that uses the KMS key with the appropriate credentials. Associate the secret with the Aurora DB cluster. Configure a custom rotation period of 14 days.
- B. Create two parameters in AWS Systems Manager Parameter Store: one for the user name as a string parameter and one that uses the SecureString type for the password. Select AWS Key Management Service (AWS KMS) encryption for the password parameter, and load these parameters in the application tier. Implement an AWS Lambda function that rotates the password every 14 days.
- C. Store a file that contains the credentials in an AWS Key Management Service (AWS KMS) encrypted Amazon Elastic File System (Amazon EFS) file system. Mount the EFS file system in all EC2 instances of the application tier.
- D. Restrict the access to the file on the file system so that the application can read the file and that only super users can modify the file. Implement an AWS Lambda function that rotates the key in Aurora every 14 days and writes new credentials into the file.
- E. Store a file that contains the credentials in an AWS Key Management Service (AWS KMS) encrypted Amazon S3 bucket that the application uses to load the credentials. Download the file to the application regularly to ensure that the correct credentials are used. Implement an AWS Lambda function that rotates the Aurora credentials every 14 days and uploads these credentials to the file in the S3 bucket.

Answer: A

NEW QUESTION 236

- (Exam Topic 3)

As part of budget planning, management wants a report of AWS billed items listed by user. The data will be used to create department budgets. A solution architect needs to determine the most efficient way to obtain this report. Information: Which solution meets these requirements?

- A. Run a query with Amazon Athena to generate the report.
- B. Create a report in Cost Explorer and download the report.
- C. Access the bill details from the billing dashboard and download via bill.
- D. Modify a cost budget in AWS Budgets to alert with Amazon Simple Email Service (Amazon SES).

Answer: B

NEW QUESTION 241

- (Exam Topic 3)

A company is designing a cloud communications platform that is driven by APIs. The application is hosted on Amazon EC2 instances behind a Network Load Balancer (NLB). The company uses Amazon API Gateway to provide external users with access to the application through APIs. The company wants to protect the platform against web exploits like SQL injection and also wants to detect and mitigate large, sophisticated DDoS attacks. Which combination of solutions provides the MOST protection? (Select TWO.)

- A. Use AWS WAF to protect the NLB.
- B. Use AWS Shield Advanced with the NLB.
- C. Use AWS WAF to protect Amazon API Gateway.
- D. Use Amazon GuardDuty with AWS Shield Standard.
- E. Use AWS Shield Standard with Amazon API Gateway.

Answer: BC

Explanation:

AWS Shield Advanced provides expanded DDoS attack protection for your Amazon EC2 instances, Elastic Load Balancing load balancers, CloudFront distributions, Route 53 hosted zones, and AWS Global Accelerator standard accelerators.

AWS WAF is a web application firewall that lets you monitor the HTTP and HTTPS requests that are forwarded to your protected web application resources. You can protect the following resource types:

Amazon CloudFront distribution Amazon API Gateway REST API Application Load Balancer

AWS AppSync GraphQL API Amazon Cognito user pool

<https://docs.aws.amazon.com/waf/latest/developerguide/what-is-aws-waf.html>

NEW QUESTION 246

- (Exam Topic 3)

A company has a three-tier application for image sharing. The application uses an Amazon EC2 instance for the front-end layer, another EC2 instance for the application layer, and a third EC2 instance for a MySQL database. A solutions architect must design a scalable and highly available solution that requires the least amount of change to the application.

Which solution meets these requirements?

- A. Use Amazon S3 to host the front-end layer
- B. Use AWS Lambda functions for the application layer
- C. Move the database to an Amazon DynamoDB table
- D. Use Amazon S3 to store and serve users' images.
- E. Use load-balanced Multi-AZ AWS Elastic Beanstalk environments for the front-end layer and the application layer
- F. Move the database to an Amazon RDS DB instance with multiple read replicas to serve users' images.
- G. Use Amazon S3 to host the front-end layer
- H. Use a fleet of EC2 instances in an Auto Scaling group for the application layer
- I. Move the database to a memory optimized instance type to store and serve users' images.
- J. Use load-balanced Multi-AZ AWS Elastic Beanstalk environments for the front-end layer and the application layer
- K. Move the database to an Amazon RDS Multi-AZ DB instance
- L. Use Amazon S3 to store and serve users' images.

Answer: D

Explanation:

for "Highly available": Multi-AZ & for "least amount of changes to the application": Elastic Beanstalk automatically handles the deployment, from capacity provisioning, load balancing, auto-scaling to application health monitoring

NEW QUESTION 251

- (Exam Topic 3)

A company has a web application that is based on Java and PHP. The company plans 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: B

NEW QUESTION 255

- (Exam Topic 3)

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

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

Which solution will make the application highly available?

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

Answer: C

NEW QUESTION 259

- (Exam Topic 3)

A company is using Amazon CloudFront with this website. The company has enabled logging on the CloudFront distribution, and logs are saved in one of the company's Amazon S3 buckets. The company needs to perform advanced analyses on the logs and build visualizations.

What should a solutions architect do to meet these requirements?

- A. Use standard SQL queries in Amazon Athena to analyze the CloudFront logs in the S3 bucket Visualize the results with AWS Glue
- B. Use standard SQL queries in Amazon Athena to analyze the CloudFront logs in the S3 bucket Visualize the results with Amazon QuickSight
- C. Use standard SQL queries in Amazon DynamoDB to analyze the CloudFront logs in the S3 bucket Visualize the results with AWS Glue
- D. Use standard SQL queries in Amazon DynamoDB to analyze the CloudFront logs in the S3 bucket Visualize the results with Amazon QuickSight

Answer: D

NEW QUESTION 262

- (Exam Topic 3)

A company is building a new web-based customer relationship management application. The application will use several Amazon EC2 instances that are backed by Amazon Elastic Block Store (Amazon EBS) volumes behind an Application Load Balancer (ALB). The application will also use an Amazon Aurora database. All data for the application must be encrypted at rest and in transit.

Which solution will meet these requirements?

- A. Use AWS Key Management Service (AWS KMS) certificates on the ALB to encrypt data in transit
- B. Use AWS Certificate Manager (ACM) to encrypt the EBS volumes and Aurora database storage at rest.
- C. Use the AWS root account to log in to the AWS Management Console
- D. Upload the company's encryption certificate
- E. While in the root account, select the option to turn on encryption for all data at rest and in transit for the account.
- F. Use a AWS Key Management Service (AWS KMS) to encrypt the EBS volumes and Aurora database storage at rest
- G. Attach an AWS Certificate Manager (ACM) certificate to the ALB to encrypt data in transit.
- H. Use BitLocker to encrypt all data at rest
- I. Import the company's TLS certificate keys to AWS Key Management Service (AWS KMS). Attach the KMS keys to the ALB to encrypt data in transit.

Answer: C

NEW QUESTION 263

- (Exam Topic 3)

An application running on an Amazon EC2 instance in VPC-A needs to access files in another EC2 instance in VPC-B. Both VPCs are in separate AWS accounts. The network administrator needs to design a solution to configure secure access to EC2 instance in VPC-B from VPC-A. The connectivity should not have a single point of failure or bandwidth concerns.

Which solution will meet these requirements?

- A. Set up a VPC peering connection between VPC-A and VPC-B.
- B. Set up VPC gateway endpoints for the EC2 instance running in VPC-B.
- C. Attach a virtual private gateway to VPC-B and set up routing from VPC-A.
- D. Create a private virtual interface (VIF) for the EC2 instance running in VPC-B and add appropriate routes from VPC-A.

Answer: A

Explanation:

AWS uses the existing infrastructure of a VPC to create a VPC peering connection; it is neither a gateway nor a VPN connection, and does not rely on a separate piece of physical hardware. There is no single point of failure for communication or a bandwidth bottleneck.

<https://docs.aws.amazon.com/vpc/latest/peering/what-is-vpc-peering.html>

NEW QUESTION 264

- (Exam Topic 3)

A company wants to configure its Amazon CloudFront distribution to use SSL/TLS certificates. The company does not want to use the default domain name for the distribution. Instead, the company wants to use a different domain name for the distribution.

Which solution will deploy the certificate with incurring any additional costs?

- A. Request an Amazon issued private certificate from AWS Certificate Manager (ACM) in the us-east-1 Region
- B. Request an Amazon issued private certificate from AWS Certificate Manager (ACM) in the us-west-1 Region.
- C. Request an Amazon issued public certificate from AWS Certificate Manager (ACM) in the us-east-1 Region
- D. Request an Amazon issued public certificate from AWS Certificate Manager (ACM) in the us-west-1 Region.

Answer: B

NEW QUESTION 265

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