



Amazon-Web-Services

Exam Questions SAA-C03

AWS Certified Solutions Architect - Associate (SAA-C03)

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NEW QUESTION 1

- (Exam Topic 1)

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

Which solution meets these requirements?

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

Answer: D

Explanation:

<https://aws.amazon.com/shield/faqs/>

NEW QUESTION 2

- (Exam Topic 1)

An application development team is designing a microservice that will convert large images to smaller, compressed images. When a user uploads an image through the web interface, the microservice should store the image in an Amazon S3 bucket, process and compress the image with an AWS Lambda function, and store the image in its compressed form in a different S3 bucket.

A solutions architect needs to design a solution that uses durable, stateless components to process the images automatically.

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

- A. Create an Amazon Simple Queue Service (Amazon SQS) queue. Configure the S3 bucket to send a notification to the SQS queue when an image is uploaded to the S3 bucket.
- B. Configure the Lambda function to use the Amazon Simple Queue Service (Amazon SQS) queue as the invocation source. When the SQS message is successfully processed, delete the message in the queue.
- C. Configure the Lambda function to monitor the S3 bucket for new uploads. When an uploaded image is detected, write the file name to a text file in memory and use the text file to keep track of the images that were processed.
- D. Launch an Amazon EC2 instance to monitor an Amazon Simple Queue Service (Amazon SQS) queue. When items are added to the queue, log the file name in a text file on the EC2 instance and invoke the Lambda function.
- E. Configure an Amazon EventBridge (Amazon CloudWatch Events) event to monitor the S3 bucket. When an image is uploaded, send an alert to an Amazon Simple Notification Service (Amazon SNS) topic with the application owner's email address for further processing.
- F. Send an alert to an Amazon Simple Notification Service (Amazon SNS) topic with the application owner's email address for further processing.

Answer: AB

Explanation:

➤ Creating an Amazon Simple Queue Service (SQS) queue and configuring the S3 bucket to send a notification to the SQS queue when an image is uploaded to the S3 bucket will ensure that the Lambda function is triggered in a stateless and durable manner.

➤ Configuring the Lambda function to use the SQS queue as the invocation source, and deleting the message in the queue after it is successfully processed will ensure that the Lambda function processes the image in a stateless and durable manner.

Amazon SQS is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications. SQS eliminates the complexity and overhead associated with managing and operating message-oriented middleware, and empowers developers to focus on differentiating work. When new images are uploaded to the S3 bucket, SQS will trigger the Lambda function to process the image and compress it. Once the image is processed, the SQS message is deleted, ensuring that the Lambda function is stateless and durable.

NEW QUESTION 3

- (Exam Topic 1)

A company collects temperature, humidity, and atmospheric pressure data in cities across multiple continents. The average volume of data collected per site each day is 500 GB. Each site has a high-speed internet connection. The company's weather forecasting applications are based in a single Region and analyze the data daily.

What is the FASTEST way to aggregate data from all of these global sites?

- A. Enable Amazon S3 Transfer Acceleration on the destination bucket.
- B. Use multipart uploads to directly upload site data to the destination bucket.
- C. Upload site data to an Amazon S3 bucket in the closest AWS Region.
- D. Use S3 cross-Region replication to copy objects to the destination bucket.
- E. Schedule AWS Snowball jobs daily to transfer data to the closest AWS Region.
- F. Use S3 cross-Region replication to copy objects to the destination bucket.
- G. Upload the data to an Amazon EC2 instance in the closest Region.
- H. Store the data in an Amazon Elastic Block Store (Amazon EBS) volume.
- I. Once a day, take an EBS snapshot and copy it to the centralized Region.
- J. Restore the EBS volume in the centralized Region and run an analysis on the data daily.

Answer: A

Explanation:

You might want to use Transfer Acceleration on a bucket for various reasons, including the following: You have customers that upload to a centralized bucket from all over the world.

You transfer gigabytes to terabytes of data on a regular basis across continents.

You are unable to utilize all of your available bandwidth over the Internet when uploading to Amazon S3.

<https://docs.aws.amazon.com/AmazonS3/latest/dev/transfer-acceleration.html> [https://aws.amazon.com/s3/transfer-acceleration/#:~:text=S3%20Transfer%20Acceleration%20\(S3TA\)%20redu](https://aws.amazon.com/s3/transfer-acceleration/#:~:text=S3%20Transfer%20Acceleration%20(S3TA)%20redu) "Amazon S3 Transfer Acceleration can speed up content transfers to and from Amazon S3 by as much as 50-500% for long-distance transfer of larger objects. Customers who have either web or mobile applications with widespread users or applications hosted far away from their S3 bucket can experience long and variable upload and download speeds over the Internet."

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/mpuoverview.html> "Improved throughput - You can upload parts in parallel to improve throughput."

NEW QUESTION 4

- (Exam Topic 1)

A company has created an image analysis application in which users can upload photos and add photo frames to their images. The users upload images and metadata to indicate which photo frames they want to add to their images. The application uses a single Amazon EC2 instance and Amazon DynamoDB to store the metadata.

The application is becoming more popular, and the number of users is increasing. The company expects the number of concurrent users to vary significantly depending on the time of day and day of week. The company must ensure that the application can scale to meet the needs of the growing user base. Which solution meets these requirements?

- A. Use AWS Lambda to process the photo
- B. Store the photos and metadata in DynamoDB.
- C. Use Amazon Kinesis Data Firehose to process the photos and to store the photos and metadata.
- D. Use AWS Lambda to process the photo
- E. Store the photos in Amazon S3. Retain DynamoDB to store the metadata.
- F. Increase the number of EC2 instances to three
- G. Use Provisioned IOPS SSD (io2) Amazon Elastic Block Store (Amazon EBS) volumes to store the photos and metadata.

Answer: C

NEW QUESTION 5

- (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 6

- (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 7

- (Exam Topic 1)

An application allows users at a company's headquarters to access product data. The product data is stored in an Amazon RDS MySQL DB instance. The operations team has isolated an application performance slowdown and wants to separate read traffic from write traffic. A solutions architect needs to optimize the application's performance quickly.

What should the solutions architect recommend?

- A. Change the existing database to a Multi-AZ deployment
- B. Serve the read requests from the primary Availability Zone.
- C. Change the existing database to a Multi-AZ deployment
- D. Serve the read requests from the secondary Availability Zone.
- E. Create read replicas for the database
- F. Configure the read replicas with half of the compute and storage resources as the source database.
- G. Create read replicas for the database
- H. Configure the read replicas with the same compute and storage resources as the source database.

Answer: D

Explanation:

https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_MySQL.Replication.ReadReplicas.html

NEW QUESTION 8

- (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 9

- (Exam Topic 1)

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

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

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

Answer: A

NEW QUESTION 10

- (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 10

- (Exam Topic 1)

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

What should a solutions architect do to accomplish this?

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

Answer: A

NEW QUESTION 12

- (Exam Topic 1)

A solutions architect is developing a multiple-subnet VPC architecture. The solution will consist of six subnets in two Availability Zones. The subnets are defined as public, private and dedicated for databases. Only the Amazon EC2 instances running in the private subnets should be able to access a database.

Which solution meets these requirements?

- A. Create a new route table that excludes the route to the public subnets' CIDR block
- B. Associate the route table to the database subnets.
- C. Create a security group that denies ingress from the security group used by instances in the public subnet
- D. Attach the security group to an Amazon RDS DB instance.
- E. Create a security group that allows ingress from the security group used by instances in the private subnet
- F. Attach the security group to an Amazon RDS DB instance.
- G. Create a new peering connection between the public subnets and the private subnet
- H. Create a different peering connection between the private subnets and the database subnets.

Answer: C

Explanation:

Security groups are stateful. All inbound traffic is blocked by default. If you create an inbound rule allowing traffic in, that traffic is automatically allowed back out again. You cannot block specific IP address using Security groups (instead use Network Access Control Lists).

"You can specify allow rules, but not deny rules." "When you first create a security group, it has no inbound rules. Therefore, no inbound traffic originating from another host to your instance is allowed until you add inbound rules to the security group." Source:

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

NEW QUESTION 15

- (Exam Topic 1)

A company needs the ability to analyze the log files of its proprietary application. The logs are stored in JSON format in an Amazon S3 bucket. Queries will be simple and will run on-demand. A solutions architect needs to perform the analysis with minimal changes to the existing architecture. What should the solutions architect do to meet these requirements with the LEAST amount of operational overhead?

- A. Use Amazon Redshift to load all the content into one place and run the SQL queries as needed
- B. Use Amazon CloudWatch Logs to store the logs. Run SQL queries as needed from the Amazon CloudWatch console
- C. Use Amazon Athena directly with Amazon S3 to run the queries as needed
- D. Use AWS Glue to catalog the logs. Use a transient Apache Spark cluster on Amazon EMR to run the SQL queries as needed

Answer: C

Explanation:

Amazon Athena can be used to query JSON in S3

NEW QUESTION 19

- (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 22

- (Exam Topic 1)

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

What should a solutions architect recommend to meet these requirements?

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

Answer: C

Explanation:

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

- * Amazon OpenSearch Service
- * Amazon S3
- * Datadog

- * Dynatrace
- * Honeycomb
- * HTTP Endpoint
- * Logic Monitor
- * MongoDB Cloud
- * New Relic
- * Splunk
- * Sumo Logic <https://docs.aws.amazon.com/firehose/latest/dev/create-name.html> <https://aws.amazon.com/kinesis/data-streams/>

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

NEW QUESTION 26

- (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 27

- (Exam Topic 1)

A solutions architect is designing a VPC with public and private subnets. The VPC and subnets use IPv4 CIDR blocks. There is one public subnet and one private subnet in each of three Availability Zones (AZs) for high availability. An internet gateway is used to provide internet access for the public subnets. The private subnets require access to the internet to allow Amazon EC2 instances to download software updates.

What should the solutions architect do to enable Internet access for the private subnets?

- A. Create three NAT gateways, one for each public subnet in each AZ
- B. Create a private route table for each AZ that forwards non-VPC traffic to the NAT gateway in its AZ.
- C. Create three NAT instances, one for each private subnet in each AZ
- D. Create a private route table for each AZ that forwards non-VPC traffic to the NAT instance in its AZ.
- E. Create a second internet gateway on one of the private subnets
- F. Update the route table for the private subnets that forward non-VPC traffic to the private internet gateway.
- G. Create an egress-only internet gateway on one of the public subnets
- H. Update the route table for the private subnets that forward non-VPC traffic to the egress-only internet gateway.

Answer: A

Explanation:

https://aws.amazon.com/about-aws/whats-new/2018/03/introducing-amazon-vpc-nat-gateway-in-the-aws-govcloud

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-comparison.html>

NEW QUESTION 32

- (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 34

- (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 37

- (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 Zone
- 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 Zone
- I. Use Amazon RDS for MySQL with Multi-AZ enabled.

Answer: D

NEW QUESTION 42

- (Exam Topic 1)

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

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

What should a solutions architect do to meet these requirements?

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

Answer: D

NEW QUESTION 43

- (Exam Topic 1)

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

What should a solutions architect do to accomplish this goal?

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

Answer: D

NEW QUESTION 47

- (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 52

- (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 55

- (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 production.
- 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 Multi-AZ deployment and read replicas for production. Use the standby instance for the staging database.
- E. Use Amazon RDS for MySQL with a Multi-AZ deployment and read replicas for production.
- 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 59

- (Exam Topic 1)

A company receives 10 TB of instrumentation data each day from several machines located at a single factory. The data consists of JSON files stored on a storage area network (SAN) in an on-premises data center located within the factory. The company wants to send this data to Amazon S3 where it can be accessed by several additional systems that provide critical near-real-time analytics. A secure transfer is important because the data is considered sensitive. Which solution offers the MOST reliable data transfer?

- A. AWS DataSync over public internet
- B. AWS DataSync over AWS Direct Connect
- C. AWS Database Migration Service (AWS DMS) over public internet
- D. AWS Database Migration Service (AWS DMS) over AWS Direct Connect

Answer: B

Explanation:

These are some of the main use cases for AWS DataSync: • Data migration – Move active datasets rapidly over the network into Amazon S3, Amazon EFS, or FSx for Windows File Server. DataSync includes automatic encryption and data integrity validation to help make sure that your data arrives securely, intact, and ready to use.

"DataSync includes encryption and integrity validation to help make sure your data arrives securely, intact, and ready to use."

<https://aws.amazon.com/datasync/faqs/>

NEW QUESTION 64

- (Exam Topic 1)

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

- An Amazon Simple Notification Service (Amazon SNS) topic for notifications about new data deliveries
- An AWS Lambda function to process the data and record metadata

The company observes that the ingestion workflow fails occasionally because of network connectivity issues. When such a failure occurs, the Lambda function does not ingest the corresponding data unless the company manually reruns the job.

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

- A. Configure the Lambda function in multiple Availability Zones.

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

Answer: BE

NEW QUESTION 68

- (Exam Topic 1)

A company runs an ecommerce application on Amazon EC2 instances behind an Application Load Balancer. The instances run in an Amazon EC2 Auto Scaling group across multiple Availability Zones. The Auto Scaling group scales based on CPU utilization metrics. The ecommerce application stores the transaction data in a MySQL 8.0 database that is hosted on a large EC2 instance.

The database's performance degrades quickly as application load increases. The application handles more read requests than write transactions. The company wants a solution that will automatically scale the database to meet the demand of unpredictable read workloads while maintaining high availability.

Which solution will meet these requirements?

- A. Use Amazon Redshift with a single node for leader and compute functionality.
- B. Use Amazon RDS with a Single-AZ deployment. Configure Amazon RDS to add reader instances in a different Availability Zone.
- C. Use Amazon Aurora with a Multi-AZ deployment.
- D. Configure Aurora Auto Scaling with Aurora Replicas.
- E. Use Amazon ElastiCache for Memcached with EC2 Spot Instances.

Answer: C

Explanation:

AURORA is 5x performance improvement over MySQL on RDS and handles more read requests than write,; maintaining high availability = Multi-AZ deployment

NEW QUESTION 72

- (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 76

- (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 RD
- 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 RD
- 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 80

- (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 81

- (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 84

- (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 Zones.
- 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 Zone.
- 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 Zones.
- G. Use an Amazon RDS DB instance with a read replica in a single Availability Zone.
- 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 85

- (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 90

- (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 91

- (Exam Topic 2)

A company wants to run applications in containers in the AWS Cloud. These applications are stateless and can tolerate disruptions within the underlying infrastructure. The company needs a solution that minimizes cost and operational overhead. What should a solutions architect do to meet these requirements?

- A. Use Spot Instances in an Amazon EC2 Auto Scaling group to run the application containers.
- B. Use Spot Instances in an Amazon Elastic Kubernetes Service (Amazon EKS) managed node group.
- C. Use On-Demand Instances in an Amazon EC2 Auto Scaling group to run the application containers.
- D. Use On-Demand Instances in an Amazon Elastic Kubernetes Service (Amazon EKS) managed node group.

Answer: A

Explanation:

<https://aws.amazon.com/cn/blogs/compute/cost-optimization-and-resilience-eks-with-spot-instances/>

NEW QUESTION 95

- (Exam Topic 2)

A company runs workloads on AWS. The company needs to connect to a service from an external provider. The service is hosted in the provider's VPC. According to the company's security team, the connectivity must be private and must be restricted to the target service. The connection must be initiated only from the company's VPC.

Which solution will meet these requirements?

- A. Create a VPC peering connection between the company's VPC and the provider's VPC.
- B. Update the route table to connect to the target service.
- C. Ask the provider to create a virtual private gateway in its VPC.
- D. Use AWS PrivateLink to connect to the target service.
- E. Create a NAT gateway in a public subnet of the company's VPC.
- F. Update the route table to connect to the target service.
- G. Ask the provider to create a VPC endpoint for the target service.
- H. Use AWS PrivateLink to connect to the target service.

Answer: D

NEW QUESTION 97

- (Exam Topic 2)

A solutions architect is designing a customer-facing application for a company. The application's database will have a clearly defined access pattern throughout the year and will have a variable number of reads and writes that depend on the time of year. The company must retain audit records for the database for 7 days. The recovery point objective (RPO) must be less than 5 hours.

Which solution meets these requirements?

- A. Use Amazon DynamoDB with auto scaling. Use on-demand backups and Amazon DynamoDB Streams.
- B. Use Amazon Redshift.
- C. Configure concurrency scaling.
- D. Activate audit logging.
- E. Perform database snapshots every 4 hours.
- F. Use Amazon RDS with Provisioned IOPS. Activate the database auditing parameter. Perform database snapshots every 5 hours.
- G. Use Amazon Aurora MySQL with auto scaling.
- H. Activate the database auditing parameter.

Answer: B

NEW QUESTION 101

- (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 105

- (Exam Topic 2)

A company wants to migrate its MySQL database from on-premises to AWS. The company recently experienced a database outage that significantly impacted the business. To ensure this does not happen again, the company wants a reliable database solution on AWS that minimizes data loss and stores every transaction on at least two nodes.

Which solution meets these requirements?

- A. Create an Amazon RDS DB instance with synchronous replication to three nodes in three Availability Zones.
- B. Create an Amazon RDS MySQL DB instance with Multi-AZ functionality enabled to synchronously replicate the data.
- C. Create an Amazon RDS MySQL DB instance and then create a read replica in a separate AWS Region that synchronously replicates the data.
- D. Create an Amazon EC2 instance with a MySQL engine installed that triggers an AWS Lambda function to synchronously replicate the data to an Amazon RDS MySQL DB instance.

Answer: B

Explanation:

Q: What does Amazon RDS manage on my behalf?

Amazon RDS manages the work involved in setting up a relational database: from provisioning the infrastructure capacity you request to installing the database software. Once your database is up and running, Amazon RDS automates common administrative tasks such as performing backups and patching the software that powers your database. With optional Multi-AZ deployments, Amazon RDS also manages synchronous data replication across Availability Zones with automatic failover.

<https://aws.amazon.com/rds/faqs/>

NEW QUESTION 106

- (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 111

- (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 113

- (Exam Topic 2)

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

Which action should the solutions architect take?

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

Answer: C

Explanation:

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/field-level-encryption.html>

"With Amazon CloudFront, you can enforce secure end-to-end connections to origin servers by using HTTPS. Field-level encryption adds an additional layer of security that lets you protect specific data throughout system processing so that only certain applications can see it."

NEW QUESTION 118

- (Exam Topic 2)

A company wants to build a scalable key management Infrastructure to support developers who need to encrypt data in their applications.

What should a solutions architect do to reduce the operational burden?

- A. Use multifactor authentication (MFA) to protect the encryption keys.
- B. Use AWS Key Management Service (AWS KMS) to protect the encryption keys
- C. Use AWS Certificate Manager (ACM) to create, store, and assign the encryption keys
- D. Use an IAM policy to limit the scope of users who have access permissions to protect the encryption keys

Answer: B

Explanation:

<https://aws.amazon.com/kms/faqs/#:~:text=If%20you%20are%20a%20developer%20who%20needs%20to%20d>

NEW QUESTION 122

- (Exam Topic 2)

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

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

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

Answer: AE

Explanation:

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

NEW QUESTION 126

- (Exam Topic 2)

A company is running several business applications in three separate VPCs within the us-east-1 Region. The applications must be able to communicate between VPCs. The applications also must be able to consistently send hundreds to gigabytes of data each day to a latency-sensitive application that runs in a single on-premises data center.

A solutions architect needs to design a network connectivity solution that maximizes cost-effectiveness. Which solution meets those requirements?

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

Answer: D

Explanation:

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-direct-connect-aws-transit-g>

NEW QUESTION 128

- (Exam Topic 2)

A company is running a multi-tier web application on premises. The web application is containerized and runs on a number of Linux hosts connected to a PostgreSQL database that contains user records. The operational overhead of maintaining the infrastructure and capacity planning is limiting the company's growth. A solutions architect must improve the application's infrastructure.

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

- A. Migrate the PostgreSQL database to Amazon Aurora.
- B. Migrate the web application to be hosted on Amazon EC2 instances.
- C. Set up an Amazon CloudFront distribution for the web application content.
- D. Set up Amazon ElastiCache between the web application and the PostgreSQL database.
- E. Migrate the web application to be hosted on AWS Fargate with Amazon Elastic Container Service (Amazon ECS).

Answer: AE

NEW QUESTION 131

- (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 136

- (Exam Topic 2)

A medical records company is hosting an application on Amazon EC2 instances. The application processes customer data files that are stored on Amazon S3. The EC2 instances are hosted in public subnets. The EC2 instances access Amazon S3 over the internet, but they do not require any other network access.

A new requirement mandates that the network traffic for file transfers take a private route and not be sent over the internet.

Which change to the network architecture should a solutions architect recommend to meet this requirement?

- A. Create a NAT gateway.
- B. Configure the route table for the public subnets to send traffic to Amazon S3 through the NAT gateway.

- C. Configure the security group for the EC2 instances to restrict outbound traffic so that only traffic to the S3 prefix list is permitted.
- D. Move the EC2 instances to private subnet
- E. Create a VPC endpoint for Amazon S3, and link the endpoint to the route table for the private subnets
- F. Remove the internet gateway from the VP
- G. Set up an AWS Direct Connect connection, and route traffic to Amazon S3 over the Direct Connect connection.

Answer: C

NEW QUESTION 140

- (Exam Topic 2)

A company wants to migrate its existing on-premises monolithic application to AWS.

The company wants to keep as much of the front-end code and the backend code as possible. However, the company wants to break the application into smaller applications. A different team will manage each application. The company needs a highly scalable solution that minimizes operational overhead.

Which solution will meet these requirements?

- A. Host the application on AWS Lambda Integrate the application with Amazon API Gateway.
- B. Host the application with AWS Amplif
- C. Connect the application to an Amazon API Gateway API that is integrated with AWS Lambda.
- D. Host the application on Amazon EC2 instance
- E. Set up an Application Load Balancer with EC2 instances in an Auto Scaling group as targets.
- F. Host the application on Amazon Elastic Container Service (Amazon ECS) Set up an Application Load Balancer with Amazon ECS as the target.

Answer: D

Explanation:

<https://aws.amazon.com/blogs/compute/microservice-delivery-with-amazon-ecs-and-application-load-balancers/>

NEW QUESTION 143

- (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 148

- (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 152

- (Exam Topic 2)

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

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

- A. Order AWS Snowball devices to transfer the dat
- B. Use a lifecycle policy to transition the files to Amazon S3 Glacier Deep Archive.

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

Answer: A

Explanation:

<https://www.omnicalculator.com/other/data-transfer>

NEW QUESTION 157

- (Exam Topic 2)

A company has a service that produces event data. The company wants to use AWS to process the event data as it is received. The data is written in a specific order that must be maintained throughout processing. The company wants to implement a solution that minimizes operational overhead. How should a solutions architect accomplish this?

- A. Create an Amazon Simple Queue Service (Amazon SQS) FIFO queue to hold messages. Set up an AWS Lambda function to process messages from the queue.
- B. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process. Configure an AWS Lambda function as a subscriber.
- C. Create an Amazon Simple Queue Service (Amazon SQS) standard queue to hold message.
- D. Set up an AWS Lambda function to process messages from the queue independently.
- E. Create an Amazon Simple Notification Service (Amazon SNS) topic to deliver notifications containing payloads to process.
- F. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a subscriber.

Answer: A

Explanation:

The details are revealed in below url: <https://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/FIFO-queues.html>

FIFO (First-In-First-Out) queues are designed to enhance messaging between applications when the order of operations and events is critical, or where duplicates can't be tolerated. Examples of situations where you might use FIFO queues include the following: To make sure that user-entered commands are run in the right order. To display the correct product price by sending price modifications in the right order. To prevent a student from enrolling in a course before registering for an account.

NEW QUESTION 160

- (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 162

- (Exam Topic 2)

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

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

Answer: DE

Explanation:

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

NEW QUESTION 165

- (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 170

- (Exam Topic 2)

A company produces batch data that comes from different databases. The company also produces live stream data from network sensors and application APIs. The company needs to consolidate all the data into one place for business analytics. The company needs to process the incoming data and then stage the data in different Amazon S3 buckets. Teams will later run one-time queries and import the data into a business intelligence tool to show key performance indicators (KPIs).

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

- A. Use Amazon Athena for one-time queries Use Amazon QuickSight to create dashboards for KPIs
- B. Use Amazon Kinesis Data Analytics for one-time queries Use Amazon QuickSight to create dashboards for KPIs
- C. Create custom AWS Lambda functions to move the individual records from the databases to an Amazon Redshift cluster
- D. Use an AWS Glue extract transform, and load (ETL) job to convert the data into JSON format Load the data into multiple Amazon OpenSearch Service (Amazon Elasticsearch Service) clusters
- E. Use blueprints in AWS Lake Formation to identify the data that can be ingested into a data lake Use AWS Glue to crawl the source extract the data and load the data into Amazon S3 in Apache Parquet format

Answer: CE

NEW QUESTION 173

- (Exam Topic 2)

A company sells ringtones created from clips of popular songs. The files containing the ringtones are stored in Amazon S3 Standard and are at least 128 KB in size. The company has millions of files, but downloads are infrequent for ringtones older than 90 days. The company needs to save money on storage while keeping the most accessed files readily available for its users.

Which action should the company take to meet these requirements MOST cost-effectively?

- A. Configure S3 Standard-Infrequent Access (S3 Standard-IA) storage for the initial storage tier of the objects.
- B. Move the files to S3 Intelligent-Tiering and configure it to move objects to a less expensive storage tier after 90 days.
- C. Configure S3 inventory to manage objects and move them to S3 Standard-Infrequent Access (S3 Standard-1A) after 90 days.
- D. Implement an S3 Lifecycle policy that moves the objects from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-1A) after 90 days.

Answer: D

NEW QUESTION 174

- (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 179

- (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 181

- (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 184

- (Exam Topic 3)

A company runs a web application on Amazon EC2 instances in multiple Availability Zones. The EC2 instances are in private subnets. A solutions architect implements an internet-facing Application Load Balancer (ALB) and specifies the EC2 instances as the target group. However, the internet traffic is not reaching the EC2 instances.

How should the solutions architect reconfigure the architecture to resolve this issue?

- A. Replace the ALB with a Network Load Balance
- B. Configure a NAT gateway in a public subnet to allow internet traffic.
- C. Move the EC2 instances to public subnet
- D. Add a rule to the EC2 instances' security groups to allow outbound traffic to 0.0.0.0/0.
- E. Update the route tables for the EC2 instances' subnets to send 0.0.0.0/0 traffic through the internet gateway route
- F. Add a rule to the EC2 instances' security groups to allow outbound traffic to 0.0.0.0/0.
- G. Create public subnets in each Availability Zone
- H. Associate the public subnets with the ALB
- I. Update the route tables for the public subnets with a route to the private subnets.

Answer: D

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/public-load-balancer-private-ec2/>

NEW QUESTION 186

- (Exam Topic 3)

A company deploys an application on five Amazon EC2 instances. An Application Load Balancer (ALB) distributes traffic to the instances by using a target group. The average CPU usage on each of the instances is below 10% most of the time. With occasional surges to 65%.

A solution architect needs to implement a solution to automate the scalability of the application. The solution must optimize the cost of the architecture and must ensure that the application has enough CPU resources when surges occur.

Which solution will meet these requirements?

- A. Create an Amazon CloudWatch alarm that enters the ALARM state when the CPU Utilization metric is less than 20%. Create an AWS Lambda function that the CloudWatch alarm invokes to terminate one of the EC2 instances in the ALB target group.
- B. Create an EC2 Auto Scaling
- C. Select the existing ALB as the load balancer and the existing target group as the target group
- D. Set a target tracking scaling policy that is based on the ASGAverageCPUUtilization metric

- E. Set the minimum instances to 2, the desired capacity to 3, the desired capacity to 3, the maximum instances to 6, and the target value to 50%. And the EC2 instances to the Auto Scaling group.
- F. Create an EC2 Auto Scaling
- G. Select the existing ALB as the load balancer and the existing target group. Set the minimum instances to 2, the desired capacity to 3, and the maximum instances to 6. Add the EC2 instances to the Scaling group.
- H. Create two Amazon CloudWatch alarms
- I. Configure the first CloudWatch alarm to enter the ALARM state when the average CPU utilization metric is below 20%. Configure the second CloudWatch alarm to enter the ALARM state when the average CPU utilization metric is above 50%. Configure the alarms to publish to an Amazon Simple Notification Service (Amazon SNS) topic to send an email message
- J. After receiving the message, log in to decrease or increase the number of EC2 instances that are running

Answer: B

NEW QUESTION 189

- (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 191

- (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 192

- (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 196

- (Exam Topic 3)

A company is using a centralized AWS account to store log data in various Amazon S3 buckets. A solutions architect needs to ensure that the data is encrypted at rest before the data is uploaded to the S3 buckets. The data also must be encrypted in transit.

Which solution meets these requirements?

- A. Use client-side encryption to encrypt the data that is being uploaded to the S3 buckets.
- B. Use server-side encryption to encrypt the data that is being uploaded to the S3 buckets.
- C. Create bucket policies that require the use of server-side encryption with S3 managed encryption keys (SSE-S3) for S3 uploads.
- D. Enable the security option to encrypt the S3 buckets through the use of a default AWS Key Management Service (AWS KMS) key.

Answer: A

NEW QUESTION 200

- (Exam Topic 3)

A company wants to migrate an Oracle database to AWS. The database consists of a single table that contains millions of geographic information systems (GIS) images that are high resolution and are identified by a geographic code.

When a natural disaster occurs tens of thousands of images get updated every few minutes. Each geographic code has a single image or row that is associated with it. The company wants a solution that is highly available and scalable during such events

Which solution meets these requirements MOST cost-effectively?

- A. Store the images and geographic codes in a database table Use Oracle running on an Amazon RDS Multi-AZ DB instance
- B. Store the images in Amazon S3 buckets Use Amazon DynamoDB with the geographic code as the key and the image S3 URL as the value
- C. Store the images and geographic codes in an Amazon DynamoDB table Configure DynamoDB Accelerator (DAX) during times of high load
- D. Store the images in Amazon S3 buckets Store geographic codes and image S3 URLs in a database table Use Oracle running on an Amazon RDS Multi-AZ DB instance.

Answer: A

NEW QUESTION 205

- (Exam Topic 3)

A company hosts a three-tier ecommerce application on a fleet of Amazon EC2 instances. The instances run in an Auto Scaling group behind an Application Load Balancer (ALB) All ecommerce data is stored in an Amazon RDS for MySQL Multi-AZ DB instance

The company wants to optimize customer session management during transactions The application must store session data durably

Which solutions will meet these requirements? (Select TWO)

- A. Turn on the sticky sessions feature (session affinity) on the ALB
- B. Use an Amazon DynamoDB table to store customer session information
- C. Deploy an Amazon Cognito user pool to manage user session information
- D. Deploy an Amazon ElastiCache for Redis cluster to store customer session information
- E. Use AWS Systems Manager Application Manager in the application to manage user session information

Answer: AB

NEW QUESTION 207

- (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 208

- (Exam Topic 3)

A financial company hosts a web application on AWS. The application uses an Amazon API Gateway Regional API endpoint to give users the ability to retrieve current stock prices. The company's security team has noticed an increase in the number of API requests. The security team is concerned that HTTP flood attacks might take the application offline.

A solutions architect must design a solution to protect the application from this type of attack. Which solution meets these requirements with the LEAST operational overhead?

- A. Create an Amazon CloudFront distribution in front of the API Gateway Regional API endpoint with a maximum TTL of 24 hours
- B. Create a Regional AWS WAF web ACL with a rate-based rule
- C. Associate the web ACL with the API Gateway stage.
- D. Use Amazon CloudWatch metrics to monitor the Count metric and alert the security team when the predefined rate is reached
- E. Create an Amazon CloudFront distribution with Lambda@Edge in front of the API Gateway Regional API endpoint Create an AWS Lambda function to block requests from IP addresses that exceed the predefined rate.

Answer: B

NEW QUESTION 212

- (Exam Topic 3)

A company needs to provide its employees with secure access to confidential and sensitive files. The company wants to ensure that the files can be accessed only by authorized users. The files must be downloaded securely to the employees' devices.

The files are stored in an on-premises Windows file server. However, due to an increase in remote usage, the file server is out of capacity.

Which solution will meet these requirements?

- A. Migrate the file server to an Amazon EC2 instance in a public subnet
- B. Configure the security group to limit inbound traffic to the employees' IP addresses.
- C. Migrate the files to an Amazon FSx for Windows File Server file system

- D. Integrate the Amazon FSx file system with the on-premises Active Directory Configure AWS Client VPN.
- E. Migrate the files to Amazon S3, and create a private VPC endpoint
- F. Create a signed URL to allow download.
- G. Migrate the files to Amazon S3, and create a public VPC endpoint Allow employees to sign on with AWS IAM identity Center (AWS Sing-On).

Answer: C

NEW QUESTION 213

- (Exam Topic 3)

A data analytics company wants to migrate its batch processing system to AWS. The company receives thousands of small data files periodically during the day through FTP. A on-premises batch job processes the data files overnight. However, the batch job takes hours to finish running. The company wants the AWS solution to process incoming data files are possible with minimal changes to the FTP clients that send the files. The solution must delete the incoming data files the files have been processed successfully. Processing for each file needs to take 3-8 minutes. Which solution will meet these requirements in the MOST operationally efficient way?

- A. Use an Amazon EC2 instance that runs an FTP server to store incoming files as objects in Amazon S3 Glacier Flexible Retrieval
- B. Configure a job queue in AWS Batch
- C. Use Amazon EventBridge rules to invoke the job to process the objects nightly from S3 Glacier Flexible Retrieval
- D. Delete the objects after the job has processed the objects.
- E. Use an Amazon EC2 instance that runs an FTP server to store incoming files on an Amazon Elastic Block Store (Amazon EBS) volume
- F. Configure a job queue in AWS Batch
- G. Use Amazon EventBridge rules to invoke the process the files nightly from the EBS volume
- H. Delete the files after the job has processed the files.
- I. Use AWS Transfer Family to create an FTP server to store incoming files on an Amazon Elastic Block Store (Amazon EBS) volume
- J. Configure a job queue in AWS Batch
- K. Use an Amazon S3 event notification when each files arrives to invoke the job in AWS Batch
- L. Delete the files after the job has processed the files.
- M. Use AWS Transfer Family to create an FTP server to store incoming files in Amazon S3 Standard. Create an AWS Lambda function to process the files and to delete the files after they are processed. Use an S3 event notification to invoke the lambda function when the files arrive

Answer: C

NEW QUESTION 216

- (Exam Topic 3)

A company hosts multiple production applications. One of the applications consists of resources from Amazon EC2, AWS Lambda, Amazon RDS, Amazon Simple Notification Service (Amazon SNS), and Amazon Simple Queue Service (Amazon SQS) across multiple AWS Regions. All company resources are tagged with a tag name of "application" and a value that corresponds to each application. A solutions architect must provide the quickest solution for identifying all of the tagged components.

Which solution meets these requirements?

- A. Use AWS CloudTrail to generate a list of resources with the application tag.
- B. Use the AWS CLI to query each service across all Regions to report the tagged components.
- C. Run a query in Amazon CloudWatch Logs Insights to report on the components with the application tag.
- D. Run a query with the AWS Resource Groups Tag Editor to report on the resources globally with the application tag.

Answer: D

Explanation:

<https://docs.aws.amazon.com/tag-editor/latest/userguide/tagging.html>

NEW QUESTION 217

- (Exam Topic 3)

A company is running a multi-tier recommender web application in the AWS Cloud. The application runs on Amazon EC2 instances with an Amazon RDS for MySQL Multi-AZ DB instance. Amazon RDS is configured with the latest generation DB instance with 2,000 GB of storage in a General Purpose SSD (gp3) Amazon Elastic Block Store (Amazon EBS) volume. The database performance affects the application during periods high demand.

A database administrator analyzes the logs in Amazon CloudWatch Logs and discovers that the application performance always degrades when the number of read and write IOPS is higher than 20,000.

What should a solutions architect do to improve the application performance?

- A. Replace the volume with a magnetic volume.
- B. Increase the number of IOPS on the gp3 volume.
- C. Replace the volume with a Provisioned IOPS SSD (io2) volume.
- D. Replace the 2,000 GB gp3 volume with two 1,000 GB gp3 volumes

Answer: C

NEW QUESTION 222

- (Exam Topic 3)

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

Which AWS solution should the company use to meet these requirements?

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

Answer: D

NEW QUESTION 224

- (Exam Topic 3)

A company hosts its web application on AWS using seven Amazon EC2 instances. The company requires that the IP addresses of all healthy EC2 instances be returned in response to DNS queries.

Which policy should be used to meet this requirement?

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

Answer: C

Explanation:

Use a multivalued answer routing policy to help distribute DNS responses across multiple resources. For example, use multivalued answer routing when you want to associate your routing records with a Route 53 health check. For example, use multivalued answer routing when you need to return multiple values for a DNS query and route traffic to multiple IP addresses.

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

NEW QUESTION 227

- (Exam Topic 3)

A company's web application consists of an Amazon API Gateway API in front of an AWS Lambda function and an Amazon DynamoDB database. The Lambda function

handles the business logic, and the DynamoDB table hosts the data. The application uses Amazon Cognito user pools to identify the individual users of the application. A solutions architect needs to update the application so that only users who have a subscription can access premium content.

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

Answer: C

NEW QUESTION 229

- (Exam Topic 3)

A company is moving its on-premises Oracle database to Amazon Aurora PostgreSQL. The database has several applications that write to the same tables. The applications need to be migrated one by one with a month in between each migration. Management has expressed concerns that the database has a high number of reads and writes. The data must be kept in sync across both databases throughout the migration.

What should a solutions architect recommend?

- A. Use AWS DataSync for the initial migration
- B. Use AWS Database Migration Service (AWS DMS) to create a change data capture (CDC) replication task and a table mapping to select all tables.
- C. Use AWS DataSync for the initial migration
- D. Use AWS Database Migration Service (AWS DMS) to create a full load plus change data capture (CDC) replication task and a table mapping to select all tables.
- E. Use the AWS Schema Conversion Tool with AWS Database Migration Service (AWS DMS) using a memory optimized replication instance
- F. Create a full load plus change data capture (CDC) replication task and a table mapping to select all tables.
- G. Use the AWS Schema Conversion Tool with AWS Database Migration Service (AWS DMS) using a compute optimized replication instance
- H. Create a full load plus change data capture (CDC) replication task and a table mapping to select the largest tables.

Answer: C

NEW QUESTION 232

- (Exam Topic 3)

A company has hired an external vendor to perform work in the company's AWS account. The vendor uses an automated tool that is hosted in an AWS account that the vendor owns. The vendor does not have IAM access to the company's AWS account.

How should a solutions architect grant this access to the vendor?

- A. Create an IAM role in the company's account to delegate access to the vendor's IAM role
- B. Attach the appropriate IAM policies to the role for the permissions that the vendor requires.
- C. Create an IAM user in the company's account with a password that meets the password complexity requirement
- D. Attach the appropriate IAM policies to the user for the permissions that the vendor requires.
- E. Create an IAM group in the company's account
- F. Add the tool's IAM user from the vendor account to the group
- G. Attach the appropriate IAM policies to the group for the permissions that the vendor requires.
- H. Create a new identity provider by choosing "AWS account" as the provider type in the IAM console. Supply the vendor's AWS account ID and user name
- I. Attach the appropriate IAM policies to the new provider for the permissions that the vendor requires.

Answer: A

Explanation:

https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles_common-scenarios_third-party.html

NEW QUESTION 236

- (Exam Topic 3)

A rapidly growing global e-commerce company is hosting its web application on AWS. The web application includes static content and dynamic content. The website stores online transaction processing (OLTP) data in an Amazon RDS database. The website's users are experiencing slow page loads.

Which combination of actions should a solutions architect take to resolve this issue? (Select TWO.)

- A. Configure an Amazon Redshift cluster.

- B. Set up an Amazon CloudFront distribution
- C. Host the dynamic web content in Amazon S3
- D. Create a t w d replica for the RDS DB instance.
- E. Configure a Multi-AZ deployment for the RDS DB instance

Answer: BD

NEW QUESTION 239

- (Exam Topic 3)

A company runs an application on a group of Amazon Linux EC2 instances. For compliance reasons, the company must retain all application log files for 7 years. The log files will be analyzed by a reporting tool that must be able to access all the files concurrently.

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 EC2 instance store
- D. Amazon S3

Answer: D

NEW QUESTION 240

- (Exam Topic 3)

A company has one million users that use its mobile app. The company must analyze the data usage in near-real time. The company also must encrypt the data in near-real time and must store the data in a centralized location in Apache Parquet format for further processing.

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

- A. Create an Amazon Kinesis data stream to store the data in Amazon S3. Create an Amazon Kinesis Data Analytics application to analyze the data
- B. Invoke an AWS Lambda function to send the data to the Kinesis Data Analytics application.
- C. Create an Amazon Kinesis data stream to store the data in Amazon S3. Create an Amazon EMR cluster to analyze the data
- D. Invoke an AWS Lambda function to send the data to the EMR cluster.
- E. Create an Amazon Kinesis Data Firehose delivery stream to store the data in Amazon S3. Create an Amazon EMR cluster to analyze the data.
- F. Create an Amazon Kinesis Data Firehose delivery stream to store the data in Amazon S3. Create an Amazon Kinesis Data Analytics application to analyze the data

Answer: D

Explanation:

This solution will meet the requirements with the least operational overhead as it uses Amazon Kinesis Data Firehose, which is a fully managed service that can automatically handle the data collection, data transformation, encryption, and data storage in near-real time. Kinesis Data Firehose can automatically store the data in Amazon S3 in Apache Parquet format for further processing. Additionally, it allows you to create an Amazon Kinesis Data Analytics application to analyze the data in near real-time, with no need to manage any infrastructure or invoke any Lambda function. This way you can process a large amount of data with the least operational overhead.

NEW QUESTION 241

- (Exam Topic 3)

A company needs a backup strategy for its three-tier stateless web application. The web application runs on Amazon EC2 instances in an Auto Scaling group with a dynamic scaling policy that is configured to respond to scaling events. The database tier runs on Amazon RDS for PostgreSQL. The web application does not require temporary local storage on the EC2 instances. The company's recovery point objective (RPO) is 2 hours.

The backup strategy must maximize scalability and optimize resource utilization for this environment. Which solution will meet these requirements?

- A. Take snapshots of Amazon Elastic Block Store (Amazon EBS) volumes of the EC2 instances and database every 2 hours to meet the RPO
- B. Configure a snapshot lifecycle policy to take Amazon Elastic Block Store (Amazon EBS) snapshots. Enable automated backups in Amazon RDS to meet the RPO
- C. Retain the latest Amazon Machine Images (AMIs) of the web and application tiers. Enable automated backups in Amazon RDS and use point-in-time recovery to meet the RPO
- D. Take snapshots of Amazon Elastic Block Store (Amazon EBS) volumes of the EC2 instances every 2 hours. Enable automated backups in Amazon RDS and use point-in-time recovery to meet the RPO

Answer: D

NEW QUESTION 245

- (Exam Topic 3)

A solutions architect wants all new users to have specific complexity requirements and mandatory rotation periods for IAM user passwords. What should the solutions architect do to accomplish this?

- A. Set an overall password policy for the entire AWS account
- B. Set a password policy for each IAM user in the AWS account
- C. Use third-party vendor software to set password requirements
- D. Attach an Amazon CloudWatch rule to the Create_newuser event to set the password with the appropriate requirements

Answer: A

NEW QUESTION 246

- (Exam Topic 3)

An Amazon EC2 instance is located in a private subnet in a new VPC. This subnet does not have outbound internet access, but the EC2 instance needs the ability to download monthly security updates from an outside vendor.

What should a solutions architect do to meet these requirements?

- A. Create an internet gateway, and attach it to the VP
- B. Configure the private subnet route table to use the internet gateway as the default route.
- C. Create a NAT gateway, and place it in a public subne
- D. Configure the private subnet route table to use the NAT gateway as the default route.
- E. Create a NAT instance, and place it in the same subnet where the EC2 instance is locate
- F. Configure the private subnet route table to use the NAT instance as the default route.
- G. Create an internet gateway, and attach it to the VP
- H. Create a NAT instance, and place it in the same subnet where the EC2 instance is locate
- I. Configure the private subnet route table to use the internet gateway as the default route.

Answer: B

Explanation:

This approach will allow the EC2 instance to access the internet and download the monthly security updates while still being located in a private subnet. By creating a NAT gateway and placing it in a public subnet, it will allow the instances in the private subnet to access the internet through the NAT gateway. And then, configure the private subnet route table to use the NAT gateway as the default route. This will ensure that all outbound traffic is directed through the NAT gateway, allowing the EC2 instance to access the internet while still maintaining the security of the private subnet.

NEW QUESTION 250

- (Exam Topic 3)

A company hosts a web application on multiple Amazon EC2 instances. The EC2 instances are in an Auto Scaling group that scales in response to user demand. The company wants to optimize cost savings without making a long-term commitment. Which EC2 instance purchasing option should a solutions architect recommend to meet these requirements'?

- A. Dedicated Instances only
- B. On-Demand Instances only
- C. A mix of On-Demand instances and Spot Instances
- D. A mix of On-Demand instances and Reserved instances

Answer: A

NEW QUESTION 251

- (Exam Topic 3)

A company is building a data analysis platform on AWS by using AWS Lake Formation. The platform will ingest data from different sources such as Amazon S3 and Amazon RDS. The company needs a secure solution to prevent access to portions of the data that contain sensitive information.

- A. Create an IAM role that includes permissions to access Lake Formation tables.
- B. Create data filters to implement row-level security and cell-level security.
- C. Create an AWS Lambda function that removes sensitive information before Lake Formation ingests re data.
- D. Create an AWS Lambda function that periodically Queries and removes sensitive information from Lake Formation tables.

Answer: A

NEW QUESTION 252

- (Exam Topic 3)

An online learning company is migrating to the AWS Cloud. The company maintains its student records in a PostgreSQL database. The company needs a solution in which its data is available and online across multiple AWS Regions at all times. Which solution will meet these requirements with the LEAST amount of operational overhead?

- A. Migrate the PostgreSQL database to a PostgreSQL cluster on Amazon EC2 instances.
- B. Migrate the PostgreSQL database to an Amazon RDS for PostgreSQL DB instance with the Multi-AZ feature turned on.
- C. Migrate the PostgreSQL database to an Amazon RDS for PostgreSQL DB instanc
- D. Create a read replica in another Region.
- E. Migrate the PostgreSQL database to an Amazon RDS for PostgreSQL DB instanc
- F. Set up DB snapshots to be copied to another Region.

Answer: C

Explanation:

"online across multiple AWS Regions at all times". Currently only Read Replica supports cross-regions, Multi-AZ does not support cross-region (it works only in same region)

<https://aws.amazon.com/about-aws/whats-new/2018/01/amazon-rds-read-replicas-now-support-multi-az-deploy>

NEW QUESTION 255

- (Exam Topic 3)

A company has a large dataset for its online advertising business stored in an Amazon RDS for MySQL DB instance in a single Availability Zone. The company wants business reporting queries to run without impacting the write operations to the production DB instance. Which solution meets these requirements?

- A. Deploy RDS read replicas to process the business reporting queries.
- B. Scale out the DB instance horizontally by placing it behind an Elastic Load Balancer
- C. Scale up the DB instance to a larger instance type to handle write operations and queries
- D. Deploy the OB distance in multiple Availability Zones to process the business reporting queries

Answer: C

NEW QUESTION 259

- (Exam Topic 3)

A company has implemented a self-managed DNS service on AWS. The solution consists of the following:

- Amazon EC2 instances in different AWS Regions
- Endpoints of a standard accelerator in AWS Global Accelerator

The company wants to protect the solution against DDoS attacks. What should a solutions architect do to meet this requirement?

- Subscribe to AWS Shield Advanced. Add the accelerator as a resource to protect.
- Subscribe to AWS Shield Advanced. Add the EC2 instances as resources to protect.
- Create an AWS WAF web ACL that includes a rate-based rule. Associate the web ACL with the accelerator.
- Create an AWS WAF web ACL that includes a rate-based rule. Associate the web ACL with the EC2 instances.

Answer: B

NEW QUESTION 260

- (Exam Topic 3)

A company needs to migrate a legacy application from an on-premises data center to the AWS Cloud because of hardware capacity constraints. The application runs 24 hours a day, 7 days a week. The application database storage continues to grow over time.

What should a solution architect do to meet these requirements MOST cost-effectively?

- Migrate the application layer to Amazon EC2 Spot Instances. Migrate the data storage layer to Amazon S3.
- Migrate the application layer to Amazon EC2 Reserved Instances. Migrate the data storage layer to Amazon RDS On-Demand Instances.
- Migrate the application layer to Amazon EC2 Reserved instances. Migrate the data storage layer to Amazon Aurora Reserved Instances.
- Migrate the application layer to Amazon EC2 On Demand. Migrate the data storage layer to Amazon RDS Reserved instances.

Answer: C

NEW QUESTION 263

- (Exam Topic 3)

A company's security team requests that network traffic be captured in VPC Flow Logs. The logs will be frequently accessed for 90 days and then accessed intermittently.

What should a solutions architect do to meet these requirements when configuring the logs?

- Use Amazon CloudWatch as the target.
- Set the CloudWatch log group with an expiration of 90 days.
- Use Amazon Kinesis as the target.
- Configure the Kinesis stream to always retain the logs for 90 days.
- Use AWS CloudTrail as the target.
- Configure CloudTrail to save to an Amazon S3 bucket, and enable S3 Intelligent-Tiering.
- Use Amazon S3 as the target.
- Enable an S3 Lifecycle policy to transition the logs to S3 Standard-Infrequent Access (S3 Standard-IA) after 90 days.

Answer: D

Explanation:

There's a table here that specifies that VPC Flow logs can go directly to S3. Does not need to go via CloudTrail and then to S3. Nor via CW.

<https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/AWS-logs-and-resource-policy.html#AWS-logs-i>

NEW QUESTION 264

- (Exam Topic 3)

A company serves a dynamic website from a fleet of Amazon EC2 instances behind an Application Load Balancer (ALB). The website needs to support multiple languages to serve customers around the world. The website's architecture is running in the us-west-1 Region and is exhibiting high request latency for users that are located in other parts of the world.

The website needs to serve requests quickly and efficiently regardless of a user's location. However, the company does not want to recreate the existing architecture across multiple Regions.

What should a solutions architect do to meet these requirements?

- Replace the existing architecture with a website that is served from an Amazon S3 bucket. Configure an Amazon CloudFront distribution with the S3 bucket as the origin. Set the cache behavior settings to cache based on the Accept-Language request header.
- Configure an Amazon CloudFront distribution with the ALB as the origin. Set the cache behavior settings to cache based on the Accept-Language request header.
- Create an Amazon API Gateway API that is integrated with the ALB. Configure the API to use the HTTP integration type. Set up an API Gateway stage to enable the API cache based on the Accept-Language request header.
- Launch an EC2 instance in each additional Region and configure NGINX to act as a cache server for that Region. Put all the EC2 instances and the ALB behind an Amazon Route 53 record set with a geolocation routing policy.

Answer: B

NEW QUESTION 269

- (Exam Topic 3)

What should a solutions architect do to ensure that all objects uploaded to an Amazon S3 bucket are encrypted?

- Update the bucket policy to deny if the PutObject does not have an s3 x-amz-acl header set.
- Update the bucket policy to deny if the PutObject does not have an s3:x-amz-aci header set to private.
- Update the bucket policy to deny if the PutObject does not have an aws SecureTransport header set to true.
- Update the bucket policy to deny if the PutObject does not have an x-amz-server-side-encryption header set.

Answer: D

Explanation:

<https://aws.amazon.com/blogs/security/how-to-prevent-uploads-of-unencrypted-objects-to-amazon-s3/#:~:text=>

NEW QUESTION 272

- (Exam Topic 3)

The customers of a finance company request appointments with financial advisors by sending text messages. A web application that runs on Amazon EC2 instances accepts the appointment requests. The text messages are published to an Amazon Simple Queue Service (Amazon SQS) queue through the web application. Another application that runs on EC2 instances then sends meeting invitations and meeting confirmation email messages to the customers. After successful scheduling, this application stores the meeting information in an Amazon DynamoDB database.

As the company expands, customers report that their meeting invitations are taking longer to arrive. What should a solutions architect recommend to resolve this issue?

- A. Add a DynamoDB Accelerator (DAX) cluster in front of the DynamoDB database.
- B. Add an Amazon API Gateway API in front of the web application that accepts the appointment requests.
- C. Add an Amazon CloudFront distributio
- D. Set the origin as the web application that accepts the appointment requests.
- E. Add an Auto Scaling group for the application that sends meeting invitation
- F. Configure the Auto Scaling group to scale based on the depth of the SQS queue.

Answer: D

Explanation:

To resolve the issue of longer delivery times for meeting invitations, the solutions architect can recommend adding an Auto Scaling group for the application that sends meeting invitations and configuring the Auto Scaling group to scale based on the depth of the SQS queue. This will allow the application to scale up as the number of appointment requests increases, improving the performance and delivery times of the meeting invitations.

NEW QUESTION 276

- (Exam Topic 3)

A company runs a web application that is backed by Amazon RDS. A new database administrator caused data loss by accidentally editing information in a database table. To help recover from this type of incident, the company wants the ability to restore the database to its state from 5 minutes before any change within the last 30 days.

Which feature should the solutions architect include in the design to meet this requirement?

- A. Read replicas
- B. Manual snapshots
- C. Automated backups
- D. Multi-AZ deployments

Answer: C

NEW QUESTION 277

- (Exam Topic 3)

A company has a web server running on an Amazon EC2 instance in a public subnet with an Elastic IP address. The default security group is assigned to the EC2 instance. The default network ACL has been modified to block all traffic. A solutions architect needs to make the web server accessible from everywhere on port 443.

Which combination of steps will accomplish this task? (Choose two.)

- A. Create a security group with a rule to allow TCP port 443 from source 0.0.0.0/0.
- B. Create a security group with a rule to allow TCP port 443 to destination 0.0.0.0/0.
- C. Update the network ACL to allow TCP port 443 from source 0.0.0.0/0.
- D. Update the network ACL to allow inbound/outbound TCP port 443 from source 0.0.0.0/0 and to destination 0.0.0.0/0.
- E. Update the network ACL to allow inbound TCP port 443 from source 0.0.0.0/0 and outbound TCP port 32768-65535 to destination 0.0.0.0/0.

Answer: AC

Explanation:

The combination of steps that will accomplish the task of making the web server accessible from everywhere on port 443 is to create a security group with a rule to allow TCP port 443 from source 0.0.0.0/0 (A) and to update the network ACL to allow inbound TCP port 443 from source 0.0.0.0/0 (C). This will ensure that traffic to port 443 is allowed both at the security group level and at the network ACL level, which will make the web server accessible from everywhere on port 443.

NEW QUESTION 282

- (Exam Topic 3)

A company recently migrated its entire IT environment to the AWS Cloud. The company discovers that users are provisioning oversized Amazon EC2 instances and modifying security group rules without using the appropriate change control process. A solutions architect must devise a strategy to track and audit these inventory and configuration changes.

Which actions should the solutions architect take to meet these requirements? (Select TWO)

- A. Enable AWS CloudTrail and use it for auditing
- B. Use data lifecycle policies for the Amazon EC2 instances
- C. Enable AWS Trusted Advisor and reference the security dashboard
- D. Enable AWS Config and create rules for auditing and compliance purposes
- E. Restore previous resource configurations with an AWS CloudFormation template

Answer: AD

NEW QUESTION 286

- (Exam Topic 3)

A company collects data from a large number of participants who use wearable devices. The company stores the data in an Amazon DynamoDB table and uses applications to analyze the data. The data workload is constant and predictable. The company wants to stay at or below its forecasted budget for DynamoDB.

Which solution will meet these requirements MOST cost-effectively?

- A. Use provisioned mode and DynamoDB Standard-Infrequent Access (DynamoDB Standard-IA). Reserve capacity for the forecasted workload.
- B. Use provisioned mode Specify the read capacity units (RCUs) and write capacity units (WCUs).
- C. Use on-demand mod
- D. Set the read capacity unite (RCUs) and write capacity units (WCUs) high enough to accommodate changes in the workload.
- E. Use on-demand mod
- F. Specify the read capacity units (RCUs) and write capacity units (WCUs) with reserved capacity.

Answer: C

NEW QUESTION 290

- (Exam Topic 3)

A company runs demonstration environments for its customers on Amazon EC2 instances. Each environment is isolated in its own VPC. The company's operations team needs to be notified when RDP or SSH access to an environment has been established.

- A. Configure Amazon CloudWatch Application Insights to create AWS Systems Manager OpsItems when RDP or SSH access is detected.
- B. Configure the EC2 instances with an IAM instance profile that has an IAM role with the AmazonSSMManagedInstanceCore policy attached.
- C. Publish VPC flow logs to Amazon CloudWatch Log
- D. Create required metric filter
- E. Create an Amazon CloudWatch metric alarm with a notification action for when the alarm is in the ALARM state.
- F. Configure an Amazon EventBridge rule to listen for events of type EC2 Instance State-change Notificatio
- G. Configure an Amazon Simple Notification Service (Amazon SNS) topic as a targe
- H. Subscribe the operations team to the topic.

Answer: C

NEW QUESTION 292

- (Exam Topic 3)

A company is hosting a three-tier ecommerce application in the AWS Cloud. The company hosts the website on Amazon S3 and integrates the website with an API that handles sales requests. The company hosts the API on three Amazon EC2 instances behind an Application Load Balancer (ALB). The API consists of static and dynamic front-end content along with backend workers that process sales requests asynchronously.

The company is expecting a significant and sudden increase in the number of sales requests during events for the launch of new products

What should a solutions architect recommend to ensure that all the requests are processed successfully?

- A. Add an Amazon CloudFront distribution for the dynamic conten
- B. Increase the number of EC2 instances to handle the increase in traffic.
- C. Add an Amazon CloudFront distribution for the static conten
- D. Place the EC2 instances in an Auto Scaling group to launch new instances based on network traffic.
- E. Add an Amazon CloudFront distribution for the dynamic conten
- F. Add an Amazon ElastiCache instance in front of the ALB to reduce traffic for the API to handle.
- G. Add an Amazon CloudFront distribution for the static conten
- H. Add an Amazon Simple Queue Service (Amazon SOS) queue to receive requests from the website for later processing by the EC2 instances.

Answer: D

NEW QUESTION 295

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