

SAA-C03 Dumps

AWS Certified Solutions Architect - Associate (SAA-C03)

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



NEW QUESTION 1

- (Exam Topic 1)

A company has a production workload that runs on 1,000 Amazon EC2 Linux instances. The workload is powered by third-party software. The company needs to patch the third-party software on all EC2 instances as quickly as possible to remediate a critical security vulnerability. What should a solutions architect do to meet these requirements?

- A. Create an AWS Lambda function to apply the patch to all EC2 instances.
- B. Configure AWS Systems Manager Patch Manager to apply the patch to all EC2 instances.
- C. Schedule an AWS Systems Manager maintenance window to apply the patch to all EC2 instances.
- D. Use AWS Systems Manager Run Command to run a custom command that applies the patch to all EC2 instances.

Answer: B

Explanation:

<https://docs.aws.amazon.com/systems-manager/latest/userguide/about-windows-app-patching.html>

NEW QUESTION 2

- (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 3

- (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 4

- (Exam Topic 1)

A company performs monthly maintenance on its AWS infrastructure. During these maintenance activities, the company needs to rotate the credentials for its Amazon ROS for MySQL databases across multiple AWS Regions

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

- A. Store the credentials as secrets in AWS Secrets Manager
- B. Use multi-Region secret replication for the required Regions Configure Secrets Manager to rotate the secrets on a schedule
- C. Store the credentials as secrets in AWS Systems Manager by creating a secure string parameter Use multi-Region secret replication for the required Regions Configure Systems Manager to rotate the secrets on a schedule
- D. Store the credentials in an Amazon S3 bucket that has server-side encryption (SSE) enabled Use Amazon EventBridge (Amazon CloudWatch Events) to invoke an AWS Lambda function to rotate the credentials
- E. Encrypt the credentials as secrets by using AWS Key Management Service (AWS KMS) multi-Region customer managed keys Store the secrets in an Amazon DynamoDB global table Use an AWS Lambda function to retrieve the secrets from DynamoDB Use the RDS API to rotate the secrets.

Answer: A

Explanation:

<https://aws.amazon.com/blogs/security/how-to-replicate-secrets-aws-secrets-manager-multiple-regions/>

NEW QUESTION 5

- (Exam Topic 1)

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

Which solution meets these requirements and «the MOST operationally efferent?

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

Answer: D

Explanation:

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

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

Key rotation in AWS KMS is a cryptographic best practice that is designed to be transparent and easy to use. AWS KMS supports optional automatic key rotation only for customer managed CMKs. Enable and disable key rotation. Automatic key rotation is disabled by default on customer managed CMKs. When you enable (or re-enable) key rotation, AWS KMS automatically rotates the CMK 365 days after the enable date and every 365 days thereafter.

NEW QUESTION 6

- (Exam Topic 1)

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

What should the solutions architect do to meet these requirements?

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

Answer: A

Explanation:

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

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

NEW QUESTION 7

- (Exam Topic 1)

A company is hosting a web application on AWS using a single Amazon EC2 instance that stores user-uploaded documents in an Amazon EBS volume. For better scalability and availability, the company duplicated the architecture and created a second EC2 instance and EBS volume in another Availability Zone placing both behind an Application Load Balancer After completing this change, users reported that, each time they refreshed the website, they could see one subset of their documents or the other, but never all of the documents at the same time.

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

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

Answer: A

Explanation:

Amazon EFS provides file storage in the AWS Cloud. With Amazon EFS, you can create a file system, mount the file system on an Amazon EC2 instance, and then read and write data to and from your file system. You can mount an Amazon EFS file system in your VPC, through the Network File System versions 4.0 and a4.1 (NFSv4) protocol. We recommend using a current generation Linux NFSv4.1 client, such as those found in the latest Amazon Linux, Redhat, and Ubuntu AMIs, in conjunction with the Amazon EFS Mount Helper. For instructions, see Using the amazon-efs-utils Tools.

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

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

<https://docs.aws.amazon.com/efs/latest/ug/how-it-works.html#how-it-works-ec2>

NEW QUESTION 8

- (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 9

- (Exam Topic 1)

A company recently launched a variety of new workloads on Amazon EC2 instances in its AWS account. The company needs to create a strategy to access and administer the instances remotely and securely. The company needs to implement a repeatable process that works with native AWS services and follows the AWS Well-Architected Framework.

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

- A. Use the EC2 serial console to directly access the terminal interface of each instance for administration.
- B. Attach the appropriate IAM role to each existing instance and new instances
- C. Use AWS Systems Manager Session Manager to establish a remote SSH session.
- D. Create an administrative SSH key pair
- E. Load the public key into each EC2 instance
- F. Deploy a bastion host in a public subnet to provide a tunnel for administration of each instance.
- G. Establish an AWS Site-to-Site VPN connection
- H. Instruct administrators to use their local on-premises machines to connect directly to the instances by using SSH keys across the VPN tunnel.

Answer: B

Explanation:

<https://docs.aws.amazon.com/systems-manager/latest/userguide/setup-launch-managed-instance.html>

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 13

- (Exam Topic 1)

A company wants to improve its ability to clone large amounts of production data into a test environment in the same AWS Region. The data is stored in Amazon EC2 instances on Amazon Elastic Block Store (Amazon EBS) volumes. Modifications to the cloned data must not affect the production environment. The software that accesses this data requires consistently high I/O performance.

A solutions architect needs to minimize the time that is required to clone the production data into the test environment.

Which solution will meet these requirements?

- A. Take EBS snapshots of the production EBS volume
- B. Restore the snapshots onto EC2 instance store volumes in the test environment.
- C. Configure the production EBS volumes to use the EBS Multi-Attach feature
- D. Take EBS snapshots of the production EBS volume
- E. Attach the production EBS volumes to the EC2 instances in the test environment.
- F. Take EBS snapshots of the production EBS volume
- G. Create and initialize new EBS volume
- H. Attach the new EBS volumes to EC2 instances in the test environment before restoring the volumes from the production EBS snapshots.
- I. Take EBS snapshots of the production EBS volume
- J. Turn on the EBS fast snapshot restore feature on the EBS snapshot
- K. Restore the snapshots into new EBS volume
- L. Attach the new EBS volumes to EC2 instances in the test environment.

Answer: C

NEW QUESTION 18

- (Exam Topic 1)

A company is storing backup files by using Amazon S3 Standard storage. The files are accessed frequently for 1 month. However, the files are not accessed after 1 month. The company must keep the files indefinitely.

Which storage solution will meet these requirements MOST cost-effectively?

- A. Configure S3 Intelligent-Tiering to automatically migrate objects.
- B. Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 Glacier Deep Archive after 1 month.
- C. Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) after 1 month.
- D. Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 1 month.

Answer: B

NEW QUESTION 22

- (Exam Topic 1)

A company is designing an application where users upload small files into Amazon S3. After a user uploads a file, the file requires one-time simple processing to transform the data and save the data in JSON format for later analysis.

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

Which solution meets these requirements with the LEAST operational overhead?

- A. Configure Amazon EMR to read text files from Amazon S3. Run processing scripts to transform the data
- B. Store the resulting JSON file in an Amazon Aurora DB cluster.
- C. Configure Amazon S3 to send an event notification to an Amazon Simple Queue Service (Amazon SQS) queue
- D. Use Amazon EC2 instances to read from the queue and process the data
- E. Store the resulting JSON file in Amazon DynamoDB.
- F. Configure Amazon S3 to send an event notification to an Amazon Simple Queue Service (Amazon SQS) queue
- G. Use an AWS Lambda function to read from the queue and process the data
- H. Store the resulting JSON file in Amazon DynamoDB
- I. Most Voted
- J. Configure Amazon EventBridge (Amazon CloudWatch Events) to send an event to Amazon Kinesis Data Streams when a new file is uploaded
- K. Use an AWS Lambda function to consume the event from the stream and process the data
- L. Store the resulting JSON file in Amazon Aurora DB cluster.

Answer: C

Explanation:

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

The SQS queue is configured as the event source for your Lambda function and buffers the event messages for the Lambda function.

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

<https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/subscribe-a-lambda-function-to-event-notific>

NEW QUESTION 24

- (Exam Topic 1)

A development team needs to host a website that will be accessed by other teams. The website contents consist of HTML, CSS, client-side JavaScript, and images. Which method is the MOST cost-effective for hosting the website?

- A. Containerize the website and host it in AWS Fargate.
- B. Create an Amazon S3 bucket and host the website there
- C. Deploy a web server on an Amazon EC2 instance to host the website.

D. Configure an Application Load Balancer with an AWS Lambda target that uses the Express.js framework.

Answer: B

Explanation:

In Static Websites, Web pages are returned by the server which are prebuilt. They use simple languages such as HTML, CSS, or JavaScript. There is no processing of content on the server (according to the user) in Static Websites. Web pages are returned by the server with no change therefore, static Websites are fast.

There is no interaction with databases.

Also, they are less costly as the host does not need to support server-side processing with different languages.

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In Dynamic Websites, Web pages are returned by the server which are processed during runtime means they are not prebuilt web pages but they are built during runtime according to the user's demand.

These use server-side scripting languages such as PHP, Node.js, ASP.NET and many more supported by the server.

So, they are slower than static websites but updates and interaction with databases are possible.

NEW QUESTION 26

- (Exam Topic 1)

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

What should a solutions architect recommend to meet the requirement?

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

Answer: B

Explanation:

<https://aws.amazon.com/premiumsupport/knowledge-center/acm-certificate-expiration/>

NEW QUESTION 28

- (Exam Topic 1)

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

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

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

Answer: D

Explanation:

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

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

NEW QUESTION 31

- (Exam Topic 1)

A hospital recently deployed a RESTful API with Amazon API Gateway and AWS Lambda The hospital uses API Gateway and Lambda to upload reports that are in PDF format and JPEG format The hospital needs to modify the Lambda code to identify protected health information (PHI) in the reports

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

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

Answer: C

NEW QUESTION 36

- (Exam Topic 1)

A company's dynamic website is hosted using on-premises servers in the United States. The company is launching its product in Europe, and it wants to optimize site loading times for new European users. The site's backend must remain in the United States. The product is being launched in a few days, and an immediate solution is needed.

What should the solutions architect recommend?

- A. Launch an Amazon EC2 instance in us-east-1 and migrate the site to it.
- B. Move the website to Amazon S3. Use cross-Region replication between Regions.
- C. Use Amazon CloudFront with a custom origin pointing to the on-premises servers.
- D. Use an Amazon Route 53 geo-proximity routing policy pointing to on-premises servers.

Answer: C

Explanation:

<https://aws.amazon.com/pt/blogs/aws/amazon-cloudfront-support-for-custom-origins/>

You can now create a CloudFront distribution using a custom origin. Each distribution will can point to an S3 or to a custom origin. This could be another storage service, or it could be something more interesting and more dynamic, such as an EC2 instance or even an Elastic Load Balancer

NEW QUESTION 39

- (Exam Topic 1)

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

Which solution will meet these requirements?

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

Answer: C

NEW QUESTION 44

- (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 48

- (Exam Topic 1)

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

Which solution will meet these requirements?

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

Answer: A

NEW QUESTION 51

- (Exam Topic 1)

A company wants to run its critical applications in containers to meet requirements for scalability and availability. The company prefers to focus on maintenance of the critical applications. The company does not want to be responsible for provisioning and managing the underlying infrastructure that runs the containerized workload.

What should a solutions architect do to meet those requirements?

- A. Use Amazon EC2 Instances, and Install Docker on the Instances
- B. Use Amazon Elastic Container Service (Amazon ECS) on Amazon EC2 worker nodes
- C. Use Amazon Elastic Container Service (Amazon ECS) on AWS Fargate
- D. Use Amazon EC2 instances from an Amazon Elastic Container Service (Amazon ECS)-optimized Amazon Machine Image (AMI).

Answer: C

Explanation:

using AWS ECS on AWS Fargate since they requirements are for scalability and availability without having to provision and manage the underlying infrastructure to run the containerized workload. <https://docs.aws.amazon.com/AmazonECS/latest/userguide/what-is-fargate.html>

NEW QUESTION 54

- (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 56

- (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 57

- (Exam Topic 1)

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

Which storage option meets these requirements?

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

Answer: B

Explanation:

S3 Intelligent-Tiering - Perfect use case when you don't know the frequency of access or irregular patterns of usage.

Amazon S3 offers a range of storage classes designed for different use cases. These include S3 Standard for general-purpose storage of frequently accessed data; S3 Intelligent-Tiering for data with unknown or changing access patterns; S3 Standard-Infrequent Access (S3 Standard-IA) and S3 One Zone-Infrequent Access (S3 One Zone-IA) for long-lived, but less frequently accessed data; and Amazon S3 Glacier (S3 Glacier) and Amazon S3 Glacier Deep Archive (S3 Glacier Deep Archive) for long-term archive and digital preservation. If you have data residency requirements that can't be met by an existing AWS Region, you can use the S3 Outposts storage class to store your S3 data on-premises. Amazon S3 also offers capabilities to manage your data throughout its lifecycle. Once an S3 Lifecycle policy is set, your data will automatically transfer to a different storage class without any changes to your application.

https://aws.amazon.com/getting-started/hands-on/getting-started-using-amazon-s3-intelligent-tiering/?nc1=h_ls

NEW QUESTION 59

- (Exam Topic 1)

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

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

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

Answer: B

Explanation:

Amazon AppFlow is a fully managed integration service that enables you to securely transfer data between Software-as-a-Service (SaaS) applications like Salesforce, SAP, Zendesk, Slack, and ServiceNow, and AWS services like Amazon S3 and Amazon Redshift, in just a few clicks.

<https://aws.amazon.com/appflow/>

NEW QUESTION 62

- (Exam Topic 1)

A company is preparing to deploy a new serverless workload. A solutions architect must use the principle of least privilege to configure permissions that will be used to run an AWS Lambda function. An Amazon EventBridge (Amazon CloudWatch Events) rule will invoke the function.

Which solution meets these requirements?

- A. Add an execution role to the function with `lambda:InvokeFunction` as the action and `*` as the principal.
- B. Add an execution role to the function with `lambda:InvokeFunction` as the action and `Service:amazonaws.com` as the principal.
- C. Add a resource-based policy to the function with `lambda:*` as the action and `Service:events.amazonaws.com` as the principal.
- D. Add a resource-based policy to the function with `lambda:InvokeFunction` as the action and `Service:events.amazonaws.com` as the principal.

Answer: D

Explanation:

<https://docs.aws.amazon.com/eventbridge/latest/userguide/resource-based-policies-eventbridge.html#lambda-pe>

NEW QUESTION 66

- (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 70

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

NEW QUESTION 71

- (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 AW
- B. Move the on-premises file data to FSx for Windows File Serve
- 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 72

- (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 73

- (Exam Topic 1)

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

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

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

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

Answer: C

Explanation:

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

NEW QUESTION 78

- (Exam Topic 1)

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

- A. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a destination for the jobs. Implement the compute nodes with Amazon EC2 instances

that are managed in an Auto Scaling group

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

Answer: B

NEW QUESTION 82

- (Exam Topic 1)

A company is building an application in the AWS Cloud. The application will store data in Amazon S3 buckets in two AWS Regions. The company must use an AWS Key Management Service (AWS KMS) customer managed key to encrypt all data that is stored in the S3 buckets. The data in both S3 buckets must be encrypted and decrypted with the same KMS key. The data and the key must be stored in each of the two Regions.

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

- A. Create an S3 bucket in each Region Configure the S3 buckets to use server-side encryption with Amazon S3 managed encryption keys (SSE-S3) Configure replication between the S3 buckets.
- B. Create a customer managed multi-Region KMS key
- C. Create an S3 bucket in each Region
- D. Configure replication between the S3 buckets
- E. Configure the application to use the KMS key with client-side encryption.
- F. Create a customer managed KMS key and an S3 bucket in each Region Configure the S3 buckets to use server-side encryption with Amazon S3 managed encryption keys (SSE-S3) Configure replication between the S3 buckets.
- G. Create a customer managed KMS key and an S3 bucket in each Region Configure the S3 buckets to use server-side encryption with AWS KMS keys (SSE-KMS) Configure replication between the S3 buckets.

Answer: B

Explanation:

From <https://docs.aws.amazon.com/kms/latest/developerguide/custom-key-store-overview.html>

For most users, the default AWS KMS key store, which is protected by FIPS 140-2 validated cryptographic modules, fulfills their security requirements. There is no need to add an extra layer of maintenance responsibility or a dependency on an additional service. However, you might consider creating a custom key store if your organization has any of the following requirements: Key material cannot be stored in a shared environment. Key material must be subject to a secondary, independent audit path. The HSMs that generate and store key material must be certified at FIPS 140-2 Level 3.

<https://docs.aws.amazon.com/kms/latest/developerguide/custom-key-store-overview.html>

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

NEW QUESTION 86

- (Exam Topic 1)

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

How can the solutions architect meet this requirement?

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

Answer: D

NEW QUESTION 91

- (Exam Topic 1)

A company has a production web application in which users upload documents through a web interface or a mobile app. According to a new regulatory requirement, new documents cannot be modified or deleted after they are stored.

What should a solutions architect do to meet this requirement?

- A. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning and S3 Object Lock enabled
- B. Store the uploaded documents in an Amazon S3 bucket
- C. Configure an S3 Lifecycle policy to archive the documents periodically.
- D. Store the uploaded documents in an Amazon S3 bucket with S3 Versioning enabled Configure an ACL to restrict all access to read-only.
- E. Store the uploaded documents on an Amazon Elastic File System (Amazon EFS) volume
- F. Access the data by mounting the volume in read-only mode.

Answer: A

Explanation:

<https://docs.aws.amazon.com/AmazonS3/latest/userguide/object-lock-overview.html>

NEW QUESTION 94

- (Exam Topic 1)

A company has registered its domain name with Amazon Route 53. The company uses Amazon API Gateway in the ca-central-1 Region as a public interface for its backend microservice APIs. Third-party services consume the APIs securely. The company wants to design its API Gateway URL with the company's domain name and corresponding certificate so that the third-party services can use HTTPS.

Which solution will meet these requirements?

- A. Create stage variables in API Gateway with Name="Endpoint-URL" and Value="Company Domain Name" to overwrite the default UR

- B. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM).
- C. Create Route 53 DNS records with the company's domain name
- D. Point the alias record to the Regional API Gateway stage endpoint
- E. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM) in the us-east-1 Region.
- F. Create a Regional API Gateway endpoint
- G. Associate the API Gateway endpoint with the company's domain name
- H. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM) in the same Region
- I. Attach the certificate to the API Gateway endpoint
- J. Configure Route 53 to route traffic to the API Gateway endpoint.
- K. Create a Regional API Gateway endpoint
- L. Associate the API Gateway endpoint with the company's domain name
- M. Import the public certificate associated with the company's domain name into AWS Certificate Manager (ACM) in the us-east-1 Region
- N. Attach the certificate to the API Gateway endpoints. Create Route 53 DNS records with the company's domain name
- O. Point an A record to the company's domain name.

Answer: D

NEW QUESTION 99

- (Exam Topic 1)

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

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

- A. Enable the versioning and MFA Delete features on the S3 bucket.
- B. Enable multi-factor authentication (MFA) on the IAM user credentials for each audit team IAM user account.
- C. Add an S3 Lifecycle policy to the audit team's IAM user accounts to deny the s3:DeleteObject action during audit dates.
- D. Use AWS Key Management Service (AWS KMS) to encrypt the S3 bucket and restrict audit team IAM user accounts from accessing the KMS key.

Answer: A

NEW QUESTION 101

- (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 105

- (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 the 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 110

- (Exam Topic 1)

A company has an application that generates a large number of files, each approximately 5 MB in size. The files are stored in Amazon S3. Company policy requires the files to be stored for 4 years before they can be deleted. Immediate accessibility is always required as the files contain critical business data that is not easy to reproduce. The files are frequently accessed in the first 30 days of the object creation but are rarely accessed after the first 30 days.

Which storage solution is MOST cost-effective?

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

- D. Create an S3 bucket lifecycle policy to move files from S3 Standard-infrequent Access (S3 Standard-IA) 30 from object creation
- E. Delete the ties 4 years after object creation
- F. Create an S3 bucket Lifecycle policy to move files from S3 Standard to S3 Standard-Infrequent Access (S3 Standard-IA) 30 days from object creation Move the files to S3 Glacier 4 years after object carton.

Answer: B

Explanation:

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

NEW QUESTION 113

- (Exam Topic 1)

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

What should a solutions architect do to meet these requirements?

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

Answer: D

NEW QUESTION 116

- (Exam Topic 1)

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

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 117

- (Exam Topic 1)

A company wants to migrate an on-premises data center to AWS. The data canter hosts an SFTP server that stores its data on an NFS-based file system. The server holds 200 GB of data that needs to be transferred. The server must be hosted on an Amazon EC2 instance that uses an Amazon Elastic File System (Amazon EFS) file system

When combination of steps should a solutions architect take to automate this task? (Select TWO)

- A. Launch the EC2 instance into the same Avalability Zone as the EFS fie system
- B. install an AWS DataSync agent m the on-premises data center
- C. Create a secondary Amazon Elastic Block Store (Amazon EBS) volume on the EC2 instance tor the data
- D. Manually use an operating system copy command to push the data to the EC2 instance
- E. Use AWS DataSync to create a suitable location configuration for the onprermises SFTP server

Answer: AB

NEW QUESTION 121

- (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 126

- (Exam Topic 2)

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

What should the solutions architect do to meet this requirement?

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

Answer: B

Explanation:

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

NEW QUESTION 131

- (Exam Topic 2)

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

What should a solutions architect do to meet these requirements?

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

Answer: A

Explanation:

<https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover-types.html>

NEW QUESTION 132

- (Exam Topic 2)

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

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

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

Which solution will meet these requirements?

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

Answer: D

NEW QUESTION 133

- (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 137

- (Exam Topic 2)

A company is migrating an application from on-premises servers to Amazon EC2 instances. As part of the migration design requirements, a solutions architect must implement infrastructure metric alarms. The company does not need to take action if CPU utilization increases to more than 50% for a short burst of time. However, if the CPU utilization increases to more than 50% and read IOPS on the disk are high at the same time, the company needs to act as soon as possible. The solutions architect also must reduce false alarms. What should the solutions architect do to meet these requirements?

- A. Create Amazon CloudWatch composite alarms where possible.
- B. Create Amazon CloudWatch dashboards to visualize the metrics and react to issues quickly.
- C. Create Amazon CloudWatch Synthetics canaries to monitor the application and raise an alarm.
- D. Create single Amazon CloudWatch metric alarms with multiple metric thresholds where possible.

Answer: A

NEW QUESTION 140

- (Exam Topic 2)

A solutions architect must design a solution that uses Amazon CloudFront with an Amazon S3 origin to store a static website. The company's security policy requires that all website traffic be inspected by AWS WAF. How should the solutions architect comply with these requirements?

- A. Configure an S3 bucket policy to accept requests coming from the AWS WAF Amazon Resource Name (ARN) only.
- B. Configure Amazon CloudFront to forward all incoming requests to AWS WAF before requesting content from the S3 origin.
- C. Configure a security group that allows Amazon CloudFront IP addresses to access Amazon S3 only. Associate AWS WAF to CloudFront.
- D. Configure Amazon CloudFront and Amazon S3 to use an origin access identity (OAI) to restrict access to the S3 bucket.
- E. Enable AWS WAF on the distribution.

Answer: D

Explanation:

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

NEW QUESTION 141

- (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 144

- (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 145

- (Exam Topic 2)

A company runs a web-based portal that provides users with global breaking news, local alerts, and weather updates. The portal delivers each user a personalized view by using a mixture of static and dynamic content. Content is served over HTTPS through an API server running on an Amazon EC2 instance behind an Application Load Balancer (ALB). The company wants the portal to provide this content to its users across the world as quickly as possible.

How should a solutions architect design the application to ensure the LEAST amount of latency for all users?

- A. Deploy the application stack in a single AWS Region
- B. Use Amazon CloudFront to serve all static and dynamic content by specifying the ALB as an origin.
- C. Deploy the application stack in two AWS Regions
- D. Use an Amazon Route 53 latency routing policy to serve all content from the ALB in the closest Region.
- E. Deploy the application stack in a single AWS Region
- F. Use Amazon CloudFront to serve the static content
- G. Serve the dynamic content directly from the ALB.
- H. Deploy the application stack in two AWS Regions
- I. Use an Amazon Route 53 geolocation routing policy to serve all content from the ALB in the closest Region.

Answer: A

Explanation:

<https://aws.amazon.com/blogs/networking-and-content-delivery/deliver-your-apps-dynamic-content-using-amaz>

NEW QUESTION 146

- (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 150

- (Exam Topic 2)

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

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

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

Answer: C

Explanation:

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

NEW QUESTION 155

- (Exam Topic 2)

A solutions architect needs to implement a solution to reduce a company's storage costs. All the company's data is in the Amazon S3 Standard storage class. The company must keep all data for at least 25 years. Data from the most recent 2 years must be highly available and immediately retrievable.

Which solution will meet these requirements?

- A. Set up an S3 Lifecycle policy to transition objects to S3 Glacier Deep Archive immediately.
- B. Set up an S3 Lifecycle policy to transition objects to S3 Glacier Deep Archive after 2 years.
- C. Use S3 Intelligent-Tiering
- D. Activate the archiving option to ensure that data is archived in S3 Glacier Deep Archive.

E. Set up an S3 Lifecycle policy to transition objects to S3 One Zone-Infrequent Access (S3 One Zone-IA) immediately and to S3 Glacier Deep Archive after 2 years.

Answer: B

NEW QUESTION 159

- (Exam Topic 2)

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

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

Answer: D

Explanation:

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

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

NEW QUESTION 163

- (Exam Topic 2)

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

Which solution meets these requirements MOST cost-effectively?

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

Answer: C

NEW QUESTION 164

- (Exam Topic 2)

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

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

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

Answer: D

Explanation:

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

NEW QUESTION 169

- (Exam Topic 2)

A company wants to migrate its on-premises data center to AWS. According to the company's compliance requirements, the company can use only the ap-northeast-3 Region. Company administrators are not permitted to connect VPCs to the internet.

Which solutions will meet these requirements? (Choose two.)

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

Answer: AC

NEW QUESTION 173

- (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 VPC
- G. Set up an AWS Direct Connect connection, and route traffic to Amazon S3 over the Direct Connect connection.

Answer: C

NEW QUESTION 177

- (Exam Topic 2)

A solutions architect is optimizing a website for an upcoming musical event. Videos of the performances will be streamed in real time and then will be available on demand. The event is expected to attract a global online audience.

Which service will improve the performance of both the real-time and on-demand streaming?

- A. Amazon CloudFront
- B. AWS Global Accelerator
- C. Amazon Route 53
- D. Amazon S3 Transfer Acceleration

Answer: A

Explanation:

You can use CloudFront to deliver video on demand (VOD) or live streaming video using any HTTP origin. One way you can set up video workflows in the cloud is by using CloudFront together with AWS Media Services.

<https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/on-demand-streaming-video.html>

NEW QUESTION 182

- (Exam Topic 2)

A company has a data ingestion workflow that includes the following components:

- An Amazon Simple Notification Service (Amazon SNS) topic that receives notifications about new data deliveries
- An AWS Lambda function that processes and stores the data

The ingestion workflow occasionally fails because of network connectivity issues. When a failure occurs the corresponding data is not ingested unless the company manually reruns the job. What should a solutions architect do to ensure that all notifications are eventually processed?

- A. Configure the Lambda function (or deployment across multiple Availability Zones)
- B. Modify the Lambda function configuration to increase the CPU and memory allocations for the function
- C. Configure the SNS topic's retry strategy to increase both the number of retries and the wait time between retries
- D. Configure an Amazon Simple Queue Service (Amazon SQS) queue as the on-failure destination. Modify the Lambda function to process messages in the queue

Answer: A

NEW QUESTION 185

- (Exam Topic 2)

A company has implemented a self-managed DNS solution on three Amazon EC2 instances behind a Network Load Balancer (NLB) in the us-west-2 Region. Most of the company's users are located in the United States and Europe. The company wants to improve the performance and availability of the solution. The company launches and configures three EC2 instances in the eu-west-1 Region and adds the EC2 instances as targets for a new NLB.

Which solution can the company use to route traffic to all the EC2 instances?

- A. Create an Amazon Route 53 geolocation routing policy to route requests to one of the two NLBs
- B. Create an Amazon CloudFront distribution
- C. Use the Route 53 record as the distribution's origin.
- D. Create a standard accelerator in AWS Global Accelerator
- E. Create endpoint groups in us-west-2 and eu-west-1. Add the two NLBs as endpoints for the endpoint groups.
- F. Attach Elastic IP addresses to the six EC2 instances
- G. Create an Amazon Route 53 geolocation routing policy to route requests to one of the six EC2 instances
- H. Create an Amazon CloudFront distribution
- I. Use the Route 53 record as the distribution's origin.
- J. Replace the two NLBs with two Application Load Balancers (ALBs). Create an Amazon Route 53 latency routing policy to route requests to one of the two ALBs
- K. Create an Amazon CloudFront distribution
- L. Use the Route 53 record as the distribution's origin.

Answer: B

Explanation:

For standard accelerators, Global Accelerator uses the AWS global network to route traffic to the optimal regional endpoint based on health, client location, and policies that you configure, which increases the availability of your applications. Endpoints for standard accelerators can be Network Load Balancers, Application Load Balancers, Amazon EC2 instances, or Elastic IP addresses that are located in one AWS Region or multiple Regions.

<https://docs.aws.amazon.com/global-accelerator/latest/dg/what-is-global-accelerator.html>

NEW QUESTION 187

- (Exam Topic 2)

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

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

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

Answer: D

NEW QUESTION 192

- (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) and 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 194

- (Exam Topic 2)

A security team wants to limit access to specific services or actions in all of the team's AWS accounts. All accounts belong to a large organization in AWS Organizations. The solution must be scalable and there must be a single point where permissions can be maintained.

What should a solutions architect do to accomplish this?

- A. Create an ACL to provide access to the services or actions.
- B. Create a security group to allow accounts and attach it to user groups.
- C. Create cross-account roles in each account to deny access to the services or actions.
- D. Create a service control policy in the root organizational unit to deny access to the services or actions.

Answer: D

Explanation:

Service control policies (SCPs) are one type of policy that you can use to manage your organization. SCPs offer central control over the maximum available permissions for all accounts in your organization, allowing you to ensure your accounts stay within your organization's access control guidelines. See https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scp.html.

NEW QUESTION 195

- (Exam Topic 2)

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

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

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

N. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3). Use Amazon RDS to query the data.

Answer: A

NEW QUESTION 200

- (Exam Topic 2)

A company runs an Oracle database on premises. As part of the company's migration to AWS, the company wants to upgrade the database to the most recent available version. The company also wants to set up disaster recovery (DR) for the database. The company needs to minimize the operational overhead for normal operations and DR setup. The company also needs to maintain access to the database's underlying operating system. Which solution will meet these requirements?

- A. Migrate the Oracle database to an Amazon EC2 instance
- B. Set up database replication to a different AWS Region.
- C. Migrate the Oracle database to Amazon RDS for Oracle
- D. Activate Cross-Region automated backups to replicate the snapshots to another AWS Region.
- E. Migrate the Oracle database to Amazon RDS Custom for Oracle
- F. Create a read replica for the database in another AWS Region.
- G. Migrate the Oracle database to Amazon RDS for Oracle
- H. Create a standby database in another Availability Zone.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/rds-custom.html> and <https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/working-with-custom-oracle.html>

NEW QUESTION 204

- (Exam Topic 2)

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 207

- (Exam Topic 2)

A company needs to retain application logs files for a critical application for 10 years. The application team regularly accesses logs from the past month for troubleshooting, but logs older than 1 month are rarely accessed. The application generates more than 10 TB of logs per month.

Which storage option meets these requirements MOST cost-effectively?

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

Answer: B

Explanation:

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

NEW QUESTION 209

- (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 213

- (Exam Topic 2)

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

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

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

Answer: B

NEW QUESTION 214

- (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 215

- (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 220

- (Exam Topic 2)

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

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

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

Answer: B

Explanation:

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

NEW QUESTION 222

- (Exam Topic 3)

A company wants to deploy a new public web application on AWS. The application includes a web server tier that uses Amazon EC2 instances. The application also includes a database tier that uses an Amazon RDS for MySQL DB instance.

The application must be secure and accessible for global customers that have dynamic IP addresses. How should a solutions architect configure the security groups to meet these requirements?

- A. Configure the security group for the web servers to allow inbound traffic on port 443 from 0.0.0.0/0. Configure the security group for the DB instance to allow inbound traffic on port 3306 from the security group of the web servers.
- B. Configure the security group for the web servers to allow inbound traffic on port 443 from the IP addresses of the customers. Configure the security group for the DB instance to allow inbound traffic on port 3306 from the security group of the web servers.
- C. Configure the security group for the web servers to allow inbound traffic on port 443 from the IP addresses of the customers. Configure the security group for the DB instance to allow inbound traffic on port 3306 from the IP addresses of the customers.

D. Configure the security group for the web servers to allow inbound traffic on port 443 from 0.0.0.0/0 Configure the security group for the DB instance to allow inbound traffic on port 3306 from 0.0.0.0/0)

Answer: A

NEW QUESTION 226

- (Exam Topic 3)

A company uses a payment processing system that requires messages for a particular payment ID to be received in the same order that they were sent. Otherwise, the payments might be processed incorrectly.

Which actions should a solutions architect take to meet this requirement? (Select TWO.)

- A. Write the messages to an Amazon DynamoDB table with the payment ID as the partition key
- B. Write the messages to an Amazon Kinesis data stream with the payment ID as the partition key.
- C. Write the messages to an Amazon ElastiCache for Memcached cluster with the payment ID as the key
- D. Write the messages to an Amazon Simple Queue Service (Amazon SQS) queue. Set the message attribute to use the payment ID
- E. Write the messages to an Amazon Simple Queue Service (Amazon SQS) FIFO queue
- F. Set the message group to use the payment ID.

Answer: AE

NEW QUESTION 230

- (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 234

- (Exam Topic 3)

A company is planning to migrate a commercial off-the-shelf application from its on-premises data center to AWS. The software has a software licensing model using sockets and cores with predictable capacity and uptime requirements. The company wants to use its existing licenses, which were purchased earlier this year.

Which Amazon EC2 pricing option is the MOST cost-effective?

- A. Dedicated Reserved Hosts
- B. Dedicated On-Demand Hosts
- C. Dedicated Reserved Instances
- D. Dedicated On-Demand Instances

Answer: A

NEW QUESTION 235

- (Exam Topic 3)

A company wants to create an application to store employee data in a hierarchical structured relationship. The company needs a minimum-latency response to high-traffic queries for the employee data and must protect any sensitive data. The company also needs to receive monthly email messages if any financial information is present in the employee data.

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

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

Answer: BE

NEW QUESTION 237

- (Exam Topic 3)

A company manages its own Amazon EC2 instances that run MySQL databases. The company is manually managing replication and scaling as demand increases or decreases. The company needs a new solution that simplifies the process of adding or removing compute capacity to or from its database tier as needed. The solution also must offer improved performance, scaling, and durability with minimal effort from operations. Which solution meets these requirements?

- A. Migrate the databases to Amazon Aurora Serverless for Aurora MySQL.
- B. Migrate the databases to Amazon Aurora Serverless for Aurora PostgreSQL.
- C. Combine the databases into one larger MySQL databas
- D. Run the larger database on larger EC2 instances.
- E. Create an EC2 Auto Scaling group for the database tie
- F. Migrate the existing databases to the new environment.

Answer: A

Explanation:

<https://aws.amazon.com/rds/aurora/serverless/>

NEW QUESTION 241

- (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 vanes 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 246

- (Exam Topic 3)

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

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

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

Answer: AD

Explanation:

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

NEW QUESTION 250

- (Exam Topic 3)

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

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

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

Answer: D

NEW QUESTION 254

- (Exam Topic 3)

A company wants to migrate its 1 PB on-premises image repository to AWS. The images will be used by a serverless web application. Images stored in the repository are rarely accessed, but they must be immediately available. Additionally, the images must be encrypted at rest and protected from accidental deletion. Which solution meets these requirements?

- A. Implement client-side encryption and store the images in an Amazon S3 Glacier vault. Set a vault lock to prevent accidental deletion.

- B. Store the images in an Amazon S3 bucket in the S3 Standard-Infrequent Access (S3 Standard-IA) storage class Enable versioning default encryption and MFA Delete on the S3 bucket.
- C. Store the images in an Amazon FSx for Windows File Server file share Configure the Amazon FSx file share to use an AWS Key Management Service (AWS KMS) customer master key (CMK) to encrypt the images in the file share Use NTFS permission sets on the images to prevent accidental deletion
- D. Store the images in an Amazon Elastic File System (Amazon EFS) file share in the Infrequent Access storage class Configure the EFS file share to use an AWS Key Management Service (AWS KMS) customer master key (CMK) to encrypt the images in the file share
- E. Use NFS permission sets on the images to prevent accidental deletion

Answer: B

NEW QUESTION 258

- (Exam Topic 3)

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

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

Answer: B

Explanation:

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

NEW QUESTION 260

- (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 262

- (Exam Topic 3)

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

- A. Create a AWS Glue extract, transform, and load (ETL) job that runs on a schedule
- B. Configure the ETL job to process the .csv files and store the processed data in Amazon Redshift.
- C. Develop a Python script that runs on Amazon EC2 instances to convert the .csv files to sql files invoke the Python script on cron schedule to store the output files in Amazon S3.
- D. Create an AWS Lambda function and an Amazon DynamoDB table
- F. Use an S3 event to invoke the Lambda function
- G. Configure the Lambda function to perform an extract transform, and load (ETL) job to process the .csv files and store the processed data in the DynamoDB table.
- H. Use Amazon EventBridge (Amazon CloudWatch Events) to launch an Amazon EMR cluster on a weekly schedule
- I. Configure the EMR cluster to perform an extract, transform, and load (ETL) job to process the .csv files and store the processed data in an Amazon Redshift table.

Answer: C

Explanation:

According to the Amazon website, Amazon S3 Select is an Amazon S3 feature that enables applications to retrieve only a subset of data from an object. It offers an efficient way to access data stored in Amazon S3 and can significantly improve query performance, save money, and increase the scalability of applications that frequently access data in S3. S3 Select allows applications to retrieve only the data that is needed, instead of the entire object, and supports SQL expressions,

CSV, and JSON. Additionally, S3 Select can be used to query objects stored in the S3 Glacier storage class. The exact text from the Amazon website about S3 Select is:

"Amazon S3 Select is an Amazon S3 feature that enables applications to retrieve only a subset of data from an object. It offers an efficient way to access data stored in Amazon S3 and can significantly improve query performance, save money, and increase the scalability of applications that frequently access data in S3. S3 Select allows applications to retrieve only the data that is needed, instead of the entire object, and supports SQL expressions, CSV, and JSON. Additionally, S3 Select can be used to query objects stored in the S3 Glacier storage class."

NEW QUESTION 267

- (Exam Topic 3)

A company has an On-premises volume backup solution that has reached its end of life. The company wants to use AWS as part of a new backup solution and wants to maintain local access to all the data while it is backed up on AWS. The company wants to ensure that the data backed up on AWS is automatically and securely transferred.

Which solution meets these requirements?

- A. Use AWS Snowball to migrate data out of the on-premises solution to Amazon S3. Configure on-premises systems to mount the Snowball S3 endpoint to provide local access to the data.
- B. Use AWS Snowball Edge to migrate data out of the on-premises solution to Amazon S3. Use the Snowball Edge file interface to provide on-premises systems with local access to the data.
- C. Use AWS Storage Gateway and configure a cached volume gateway.
- D. Run the Storage Gateway software application on premises and configure a percentage of data to cache locally.
- E. Mount the gateway storage volumes to provide local access to the data.
- F. Use AWS Storage Gateway and configure a stored volume gateway.
- G. Run the Storage software application on premises and map the gateway storage volumes to on-premises storage.
- H. Mount the gateway storage volumes to provide local access to the data.

Answer: C

NEW QUESTION 268

- (Exam Topic 3)

A company has an API that receives real-time data from a fleet of monitoring devices. The API stores this data in an Amazon RDS DB instance for later analysis. The amount of data that the monitoring devices send to the API fluctuates. During periods of heavy traffic, the API often returns timeout errors.

After an inspection of the logs, the company determines that the database is not capable of processing the volume of write traffic that comes from the API. A solutions architect must minimize the number of

connections to the database and must ensure that data is not lost during periods of heavy traffic. Which solution will meet these requirements?

- A. Increase the size of the DB instance to an instance type that has more available memory.
- B. Modify the DB instance to be a Multi-AZ DB instance.
- C. Configure the application to write to all active RDS DB instances.
- D. Modify the API to write incoming data to an Amazon Simple Queue Service (Amazon SQS) queue.
- E. Use an AWS Lambda function that Amazon SQS invokes to write data from the queue to the database.
- F. Modify the API to write incoming data to an Amazon Simple Notification Service (Amazon SNS) topic. Use an AWS Lambda function that Amazon SNS invokes to write data from the topic to the database.

Answer: C

Explanation:

Using Amazon SQS will help minimize the number of connections to the database, as the API will write data to a queue instead of directly to the database. Additionally, using an AWS Lambda function that Amazon SQS invokes to write data from the queue to the database will help ensure that data is not lost during periods of heavy traffic, as the queue will serve as a buffer between the API and the database.

NEW QUESTION 273

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