Amazon-Web-Services

Exam Questions SAA-C03

AWS Certified Solutions Architect - Associate (SAA-C03)

NEW QUESTION 1
- (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 Scalin
B. Use an Application Load Balancer to distribute the incoming requests.
C. Use two Amazon EC2 instances to host the containerized web applicatio
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 language
F. Create multiple Lambda functions to support the loa
G. Use Amazon API Gateway as an entry point to the Lambda functions.
H. Use a high performance computing (HPC) solution such as AWS ParallelClusterto establish an HPC cluster that can process the incoming requests at the appropriate scale.

Answer: A

Explanation:
AWS Fargate is a serverless compute engine that lets users run containers without having to manage servers or clusters of Amazon EC2 instances1. Users can use AWS Fargate on Amazon Elastic Container Service (Amazon ECS) to run the containerized web application with Service Auto Scaling. Amazon ECS is a fully managed container orchestration service that supports both Docker and Kubernetes2. Service Auto Scaling is a feature that allows users to adjust the desired number of tasks in an ECS service based on CloudWatch metrics, such as CPU utilization or request count3. Users can use AWS Fargate on Amazon ECS to migrate the application to AWS with minimum code changes and minimum development effort, as they only need to package their application in containers and specify the CPU and memory requirements.
Users can also use an Application Load Balancer to distribute the incoming requests. An Application Load Balancer is a load balancer that operates at the application layer and routes traffic to targets based on the content of the request. Users can register their ECS tasks as targets for an Application Load Balancer and configure listener rules to route requests to different target groups based on path or host headers. Users can use an Application Load Balancer to improve the availability and performance of their web
application.

NEW QUESTION 2
- (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 ou
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 bucke
D. 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.
E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule for each SaaS source to send output dat
F. Configure the S3 bucket as the rule's targe
G. Create a second EventBridge (CloudWatch Events) rule to send events when the upload to the S3 bucket is complet
H. Configure an Amazon Simple Notification Service (Amazon SNS) topic as the second rule's target.
I. Create a Docker container to use instead of an EC2 instanc
J. 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 3
- (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 m 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. Createan 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 rectification 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 functio
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 4
- (Topic 1)
A company has an application that provides marketing services to stores. The services are based on previous purchases by store customers. The stores upload transaction data to the company through SFTP, and the data is processed and analyzed to generate new marketing offers. Some of the files can exceed 200 GB in size.
Recently, the company discovered that some of the stores have uploaded files that contain personally identifiable information (PII) that should not have been included. The company wants administrators to be alerted if PII is shared again. The company also wants to automate remediation.
What should a solutions architect do to meet these requirements with the LEAST development effort?

A. Use an Amazon S3 bucket as a secure transfer poin
B. Use Amazon Inspector to scan me objects in the bucke
C. If objects contain Pl
D. trigger an S3 Lifecycle policy to remove the objects that contain Pll.
E. Use an Amazon S3 bucket as a secure transfer poin
F. Use Amazon Macie to scan the objects in the bucke
G. If objects contain Pl
H. Use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects mat contain Pll.
I. Implement custom scanning algorithms in an AWS Lambda functio
J. Trigger the function when objects are loaded into the bucke
K. It objects contain Rl
L. use Amazon Simple Notification Service (Amazon SNS) to trigger a notification to the administrators to remove the objects that contain Pll.
M. Implement custom scanning algorithms in an AWS Lambda functio
N. Trigger the function when objects are loaded into the bucke
O. If objects contain Pl
P. use Amazon Simple Email Service (Amazon STS) to trigger a notification to the administrators and trigger on S3 Lifecycle policy to remove the objects mot contain PII.

Answer: B

Explanation:
To meet the requirements of detecting and alerting the administrators when PII is shared and automating remediation with the least development effort, the best approach would be to use Amazon S3 bucket as a secure transfer point and scan the objects in the bucket with Amazon Macie. Amazon Macie is a fully managed data security and data privacy service that uses machine learning and pattern matching to discover and protect sensitive data stored in Amazon S3. It can be used to classify sensitive data, monitor access to sensitive data, and automate remediation actions.
In this scenario, after uploading the files to the Amazon S3 bucket, the objects can be scanned for PII by Amazon Macie, and if it detects any PII, it can trigger an Amazon Simple Notification Service (SNS) notification to alert the administrators to remove the objects containing PII. This approach requires the least development effort, as Amazon Macie already has pre-built data classification rules that can detect PII in various formats. Hence, option B is the correct answer.
References:
? Amazon Macie User Guide: https://docs.aws.amazon.com/macie/latest/userguide/what-is-macie.html
? AWS Well-Architected Framework - Security Pillar: https://docs.aws.amazon.com/wellarchitected/latest/security-pillar/welcome.html

NEW QUESTION 5
- (Topic 1)
A company runs a highly available image-processing application on Amazon EC2 instances in a single VPC The EC2 instances run inside several subnets across multiple Availability Zones. The EC2 instances do not communicate with each other However, the EC2 instances download images from Amazon S3 and upload images to Amazon S3 through a single NAT gateway The company is concerned about data transfer charges
What is the MOST cost-effective way for the company to avoid Regional data transfer charges?

A. Launch the NAT gateway in each Availability Zone
B. Replace the NAT gateway with a NAT instance
C. Deploy a gateway VPC endpoint for Amazon S3
D. Provision an EC2 Dedicated Host to run the EC2 instances

Answer: A

Explanation:
In this scenario, the company wants to avoid regional data transfer charges while downloading and uploading images from Amazon S3. To accomplish this at the lowest cost, the NAT gateway should be launched in each availability zone that the EC2 instances are running in. This allows the EC2 instances to route traffic through the local NAT gateway instead of sending traffic across an availability zone boundary and incurring regional data transfer fees. This method will help reduce the data transfer costs since inter- Availability Zone data transfers in a single region are free of charge.
Reference:
AWS NAT Gateway documentation: https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-gateway.html

NEW QUESTION 6
- (Topic 1)
A company's website uses an Amazon EC2 instance store for its catalog of items. The company wants to make sure that the catalog is highly available and that the catalog is stored in a durable location.
What should a solutions architect do to meet these requirements?

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

Answer: D

Explanation:
Moving the catalog to an Amazon Elastic File System (Amazon EFS) file system provides both high availability and durability. Amazon EFS is a fully-managed,

highly-available, and durable file system that is built to scale on demand. With Amazon EFS, the catalog data can be stored and accessed from multiple EC2 instances in different availability zones, ensuring high availability. Also, Amazon EFS automatically stores files redundantly within and across multiple availability zones, making it a durable storage option.

NEW QUESTION 7
- (Topic 1)
A development team runs monthly resource-intensive tests on its general purpose Amazon RDS for MySQL DB instance with Performance Insights enabled. The testing lasts for 48 hours once a month and is the only process that uses the database. The team wants to reduce the cost of running the tests without reducing the compute and memory attributes of the DB instance.
Which solution meets these requirements MOST cost-effectively?

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

Answer: A

Explanation:
To reduce the cost of running the tests without reducing the compute and memory attributes of the Amazon RDS for MySQL DB instance, the development team can stop the instance when tests are completed and restart it when required. Stopping the DB instance when not in use can help save costs because customers are only charged for storage while the DB instance is stopped. During this time, automated backups and automated DB instance maintenance are suspended. When the instance is restarted, it retains the same configurations, security groups, and DB parameter groups as when it was stopped.
Reference:
Amazon RDS Documentation: Stopping and Starting a DB instance (https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_StopInstance.html)

NEW QUESTION 8
- (Topic 1)
A company has a three-tier web application that is deployed on AWS. The web servers are
deployed in a public subnet in a VPC. The application servers and database servers are deployed in private subnets in the same VPC. The company has deployed a third-party virtual firewall appliance from AWS Marketplace in an inspection VPC. The appliance is configured with an IP interface that can accept IP packets.
A solutions architect needs to Integrate the web application with the appliance to inspect all traffic to the application before the traffic teaches the web server.
Which solution will moot these requirements with the LEAST operational overhead?

A. Create a Network Load Balancer the public subnet of the application's VPC to route the traffic lo the appliance for packet inspection
B. Create an Application Load Balancer in the public subnet of the application's VPC to route the traffic to the appliance for packet inspection
C. Deploy a transit gateway m the inspection VPC Configure route tables to route the incoming pockets through the transit gateway
D. Deploy a Gateway Load Balancer in the inspection VPC Create a Gateway Load Balancer endpoint to receive the incoming packets and forward the packets to the appliance

Answer: D

Explanation:
https://aws.amazon.com/blogs/networking-and-content-delivery/scaling-network-traffic-inspection-using-aws-gateway-load-balancer/

NEW QUESTION 9
- (Topic 1)
A company is migrating a distributed application to AWS The application serves variable workloads The legacy platform consists of a primary server trial 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 grou
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 grou
E. Configure AWS CloudTrail as a destination for the fobs 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

Explanation:
To maximize resiliency and scalability, the best solution is to use an Amazon SQS queue as a destination for the jobs. This decouples the primary server from the compute nodes, allowing them to scale independently. This also helps to prevent job loss in the event of a failure. Using an Auto Scaling group of Amazon EC2 instances for the compute nodes allows for automatic scaling based on the workload. In this case, it's recommended to configure the Auto Scaling group based on the size of the Amazon SQS queue, which is a better indicator of the actual workload than the load on the primary server or compute nodes. This approach ensures that the application can handle variable workloads, while also minimizing costs by automatically scaling up or down the compute nodes as needed.

NEW QUESTION 10
- (Topic 1)
A company is implementing a new business application. The application runs on two Amazon EC2 instances and uses an Amazon S3 bucket for document storage. A solutions architect needs to ensure that the EC2 instances can access the S3 bucket.
What should the solutions architect do to meet this requirement?

A. Create an IAM role that grants access to the S3 bucke
B. Attach the role to the EC2 instances.
C. Create an IAM policy that grants access to the S3 bucke
D. Attach the policy to the EC2 instances.
E. Create an IAM group that grants access to the S3 bucke
F. Attach the group to the EC2 instances.
G. Create an IAM user that grants access to the S3 bucke
H. Attach the user account to the EC2 instances.

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/ec2-instance-access-s3- bucket/

NEW QUESTION 10
- (Topic 1)
A company uses NFS to store large video files in on-premises network attached storage. Each video file ranges in size from 1MB to 500 GB. The total storage is 70 TB and is no longer growing. The company decides to migrate the video files to Amazon S3. The company must migrate the video files as soon as possible while using the least possible network bandwidth.
Which solution will meet these requirements?

A. Create an S3 bucket Create an IAM role that has permissions to write to the S3 bucke
B. Use the AWS CLI to copy all files locally to the S3 bucket.
C. Create an AWS Snowball Edge jo
D. Receive a Snowball Edge device on premise
E. Use the Snowball Edge client to transfer data to the devic
F. Return the device so that AWS can import the data into Amazon S3.
G. Deploy an S3 File Gateway on premise
H. Create a public service endpoint to connect to the S3 File Gateway Create an S3 bucket Create a new NFS file share on the S3 File Gateway Point the new file share to the S3 bucke
I. Transfer the data from the existing NFS file share to the S3 File Gateway.
J. Set up an AWS Direct Connect connection between the on-premises network and AW
K. Deploy an S3 File Gateway on premise
L. Create a public virtual interlace (VIF) to connect to the S3 File Gatewa
M. Create an S3 bucke
N. Create a new NFS file share on the S3 File Gatewa
O. Point the new file share to the S3 bucke
P. Transfer the data from the existing NFS file share to the S3 File Gateway.

Answer: B

Explanation:
The basic difference between Snowball and Snowball Edge is the capacity they provide. Snowball provides a total of 50 TB or 80 TB, out of which 42 TB or 72 TB is available, while Amazon Snowball Edge provides 100 TB, out of which 83 TB is available.

NEW QUESTION 11
- (Topic 1)
A company hosts its multi-tier applications on AWS. For compliance, governance, auditing, and security, the company must track configuration changes on its AWS resources and record a history of API calls made to these resources.
What should a solutions architect do to meet these requirements?

A. Use AWS CloudTrail to track configuration changes and AWS Config to record API calls
B. Use AWS Config to track configuration changes and AWS CloudTrail to record API calls
C. Use AWS Config to track configuration changes and Amazon CloudWatch to record API calls
D. Use AWS CloudTrail to track configuration changes and Amazon CloudWatch to record API calls

Answer: B

Explanation:
AWS Config is a fully managed service that allows the company to assess, audit, and evaluate the configurations of its AWS resources. It provides a detailed inventory of the resources in use and tracks changes to resource configurations. AWS Config can detect configuration changes and alert the company when changes occur. It also provides a historical view of changes, which is essential for compliance and governance purposes. AWS CloudTrail is a fully managed service that provides a detailed history of API calls made to the company's AWS resources. It records all API activity in the AWS account, including who made the API call, when the call was made, and what resources were affected by the call. This information is critical for security and auditing purposes, as it allows the company to investigate any suspicious activity that might occur on its AWS resources.

NEW QUESTION 13
- (Topic 1)
A company is preparing to launch a public-facing web application in the AWS Cloud. The architecture consists of Amazon EC2 instances within a VPC behind an Elastic Load Balancer (ELB). A third-party service is used for the DNS. The company's solutions architect must recommend a solution to detect and protect against large-scale DDoS attacks.
Which solution meets these requirements?

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

Answer: D

Explanation:
https://aws.amazon.com/shield/faqs/

NEW QUESTION 16
- (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 20
- (Topic 1)
A company wants to run its critical applications in containers to meet requirements tor 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)- op6mized 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 22
- (Topic 1)
A company is hosting a static website on Amazon S3 and is using Amazon Route 53 for DNS. The website is experiencing increased demand from around the world. The company must decrease latency for users who access the website.
Which solution meets these requirements MOST cost-effectively?

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

Answer: C

Explanation:
Amazon CloudFront is a content delivery network (CDN) that caches content at edge locations around the world, providing low latency and high transfer speeds to users accessing the content. Adding a CloudFront distribution in front of the S3 bucket will cache the static website's content at edge locations around the world, decreasing latency for users accessing the website. This solution is also cost-effective as it only charges for the data transfer and requests made by users accessing the content from the CloudFront edge locations. Additionally, this solution provides scalability and reliability benefits as CloudFront can automatically scale to handle increased demand and provide high availability for the website.

NEW QUESTION 27
- (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 (rack 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 31
- (Topic 1)
A company has a large Microsoft SharePoint deployment running on-premises that requires Microsoft Windows shared file storage. The company wants to migrate this workload to the AWS Cloud and is considering various storage options. The storage solution must be highly available and integrated with Active Directory for access control.
Which solution will satisfy these requirements?

A. Configure Amazon EFS storage and set the Active Directory domain for authentication
B. Create an SMB Me share on an AWS Storage Gateway tile gateway in two Availability Zones
C. Create an Amazon S3 bucket and configure Microsoft Windows Server to mount it as a volume
D. Create an Amazon FSx for Windows File Server file system on AWS and set the Active Directory domain for authentication

Answer: D

NEW QUESTION 35
- (Topic 1)
A company has created an image analysis application in which users can upload photos and add photo frames to their images. The users upload images and metadata to indicate which photo frames they want to add to their images. The application uses a single Amazon EC2 instance and Amazon DynamoDB to store the metadata.
The application is becoming more popular, and the number of users is increasing. The company expects the number of concurrent users to vary significantly depending on the time of day and day of week. The company must ensure that the application can scale to meet the needs of the growing user base.
Which solution meats these requirements?

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

Answer: C

Explanation:
https://www.quora.com/How-can-I-use-DynamoDB-for-storing-metadata-for-Amazon-S3-objects
This solution meets the requirements of scalability, performance, and availability. AWS Lambda can process the photos in parallel and scale up or down automatically depending on the demand. Amazon S3 can store the photos and metadata reliably and durably, and provide high availability and low latency. DynamoDB can store the metadata efficiently and provide consistent performance. This solution also reduces the cost and complexity of managing EC2 instances and EBS volumes.
Option A is incorrect because storing the photos in DynamoDB is not a good practice, as it can increase the storage cost and limit the throughput. Option B is incorrect because Kinesis Data Firehose is not designed for processing photos, but for streaming data to destinations such as S3 or Redshift. Option D is incorrect because increasing the number of EC2 instances and using Provisioned IOPS SSD volumes does not guarantee scalability, as it depends on the load balancer and the application code. It also increases the cost and complexity of managing the infrastructure.
References:
? https://aws.amazon.com/certification/certified-solutions-architect-professional/
? https://www.examtopics.com/discussions/amazon/view/7193-exam-aws-certified-solutions-architect-professional-topic-1/
? https://aws.amazon.com/architecture/

NEW QUESTION 38
- (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 queu
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 43
- (Topic 1)
A company has a data ingestion workflow that consists 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 me SNS topic.
C. Increase the CPU and memory that are allocated to the Lambda function.
D. Increase provisioned throughput for the Lambda function.
E. Modify the Lambda function to read from an Amazon Simple Queue Service (Amazon SQS) queue

Answer: BE

Explanation:
To ensure that the Lambda function ingests all data in the future despite occasional network connectivity issues, the following actions should be taken:
? Create an Amazon Simple Queue Service (SQS) queue and subscribe it to the SNS topic. This allows for decoupling of the notification and processing, so that even if the processing Lambda function fails, the message remains in the queue for further processing later.
? Modify the Lambda function to read from the SQS queue instead of directly from SNS. This decoupling allows for retries and fault tolerance and ensures that all messages are processed by the Lambda function.
Reference:
AWS SNS documentation: https://aws.amazon.com/sns/ AWS SQS documentation: https://aws.amazon.com/sqs/
AWS Lambda documentation: https://aws.amazon.com/lambda/

NEW QUESTION 48
- (Topic 1)
A company has applications that run on Amazon EC2 instances in a VPC. One of the applications needs to call the Amazon S3 API to store and read objects. According to the company's security regulations, no traffic from the applications is allowed to travel across the internet.
Which solution will meet these requirements?

A. Configure an S3 interface endpoint.
B. Configure an S3 gateway endpoint.
C. Create an S3 bucket in a private subnet.
D. Create an S3 bucket in the same Region as the EC2 instance.

Answer: B

Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/privatelink-interface-endpoints.html#types-of-vpc-endpoints-for-s3
https://docs.aws.amazon.com/vpc/latest/userguide/vpc-endpoints-s3.html

NEW QUESTION 52
- (Topic 1)
A company recently launched Linux-based application instances on Amazon EC2 in a private subnet and launched a Linux-based bastion host on an Amazon EC2 instance in a public subnet of a VPC A solutions architect needs to connect from the on-premises
network, through the company's internet connection to the bastion host and to the application servers The solutions architect must make sure that the security groups of all the EC2 instances will allow that access
Which combination of steps should the solutions architect take to meet these requirements? (Select TWO)

A. Replace the current security group of the bastion host with one that only allows inbound access from the application instances
B. Replace the current security group of the bastion host with one that only allows inbound access from the internal IP range for the company
C. Replace the current security group of the bastion host with one that only allows inbound access from the external IP range for the company
D. Replace the current security group of the application instances with one that allows inbound SSH access from only the private IP address of the bastion host
E. Replace the current security group of the application instances with one that allows inbound SSH access from only the public IP address of the bastion host

Answer: CD

Explanation:
https://digitalcloud.training/ssh-into-ec2-in-private-subnet/

NEW QUESTION 54
- (Topic 1)
A company is running an SMB file server in its data center. The file server stores large files that are accessed frequently for the first few days after the files are created. After 7 days the files are rarely accessed.
The total data size is increasing and is close to the company's total storage capacity. A solutions architect must increase the company's available storage space without losing low-latency access to the most recently accessed files. The solutions architect must also provide file lifecycle management to avoid future storage issues.
Which solution will meet these requirements?

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

Answer: B

Explanation:
Amazon S3 File Gateway is a hybrid cloud storage service that enables on- premises applications to seamlessly use Amazon S3 cloud storage. It provides a file interface to Amazon S3 and supports SMB and NFS protocols. It also supports S3 Lifecycle policies that can automatically transition data from S3 Standard to S3 Glacier Deep Archive after a specified period of time. This solution will meet the requirements of increasing the company’s available storage space without losing low-latency access to the most recently accessed files and providing file lifecycle management to avoid future storage issues.
Reference:
https://docs.aws.amazon.com/storagegateway/latest/userguide/WhatIsStorageGateway.ht ml

NEW QUESTION 59
- (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 Add Permission API call to add appropriate permissions
C. Use the ReceiveMessage API call to set an appropriate wail 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 intruduce one more Queue in the existing one; Option B - only Permission & Option C - Only Retrieves Messages] FIF O 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 64
- (Topic 1)
A company is storing sensitive user information in an Amazon S3 bucket The company wants to provide secure access to this bucket from the application tier running on Ama2on EC2 instances inside a VPC.
Which combination of steps should a solutions architect take to accomplish this? (Select TWO.)

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

Answer: AC

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/s3-private-connection-no-authentication/

NEW QUESTION 66
- (Topic 1)
A solutions architect must design a highly available infrastructure for a website. The website is powered by Windows web servers that run on Amazon EC2 instances. The solutions architect must implement a solution that can mitigate a large-scale DDoS attack that originates from thousands of IP addresses. Downtime is not acceptable for the website.
Which actions should the solutions architect take to protect the website from such an attack? (Select TWO.)

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

Answer: AC

Explanation:
(https://aws.amazon.com/cloudfront

NEW QUESTION 67
- (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 ke
C. Create an S3 bucket in each Regio
D. Configure replication between the S3 bucket
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 m 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 69
- (Topic 1)
An Amazon EC2 administrator created the following policy associated with an IAM group containing several users

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "ec2:TerminateInstances",
            "Resource": "*",
            "Condition": {
                "IpAddress": {
                    "aws:SourceIp": "10.100.100.0/24"
                }
            }
        },
        {
            "Effect": "Deny",
            "Action": "ec2:*",
            "Resource": "*",
            "Condition": {
                "StringNotEquals": {
                    "ec2:Region": "us-east-1"
                }
            }
        }
    ]
}
```

What is the effect of this policy?

A. Users can terminate an EC2 instance in any AWS Region except us-east-1.
B. Users can terminate an EC2 instance with the IP address 10 100 100 1 in the us-east-1 Region
C. Users can terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100.100.254.
D. Users cannot terminate an EC2 instance in the us-east-1 Region when the user's source IP is 10.100 100 254

Answer: C

Explanation:
as the policy prevents anyone from doing any EC2 action on any region except us-east-1 and allows only users with source ip 10.100.100.0/24 to terminate instances. So user with source ip 10.100.100.254 can terminate instances in us-east-1 region.

NEW QUESTION 74
- (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-aws-site-to-site-vpn/

NEW QUESTION 76
- (Topic 1)
A company needs to configure a real-time data ingestion architecture for its application. The company needs an API, a process that transforms data as the data is streamed, and a storage solution for the data.
Which solution will meet these requirements with the LEAST operational overhead?

A. Deploy an Amazon EC2 instance to host an API that sends data to an Amazon Kinesis data strea
B. Create an Amazon Kinesis Data Firehose delivery stream that uses the Kinesis data stream as a data sourc
C. Use AWS Lambda functions to transform the dat
D. Use the Kinesis Data Firehose delivery stream to send the data to Amazon S3.
E. Deploy an Amazon EC2 instance to host an API that sends data to AWS Glu
F. Stop source/destination checking on the EC2 instanc
G. Use AWS Glue to transform the data and to send the data to Amazon S3.
H. Configure an Amazon API Gateway API to send data to an Amazon Kinesis data strea
I. Create an Amazon Kinesis Data Firehose delivery stream that uses the Kinesis data stream as a data sourc
J. Use AWS Lambda functions to transform the dat
K. Use the Kinesis Data Firehose delivery stream to send the data to Amazon S3.
L. Configure an Amazon API Gateway API to send data to AWS Glu
M. Use AWS Lambda functions to transform the dat
N. Use AWS Glue to send the data to Amazon S3.

Answer: C

NEW QUESTION 77
- (Topic 1)
A company has an Amazon S3 bucket that contains critical data. The company must protect the data from accidental deletion.
Which combination of steps should a solutions architect take to meet these requirements?
(Choose two.)

A. Enable versioning on the S3 bucket.
B. Enable MFA Delete on the S3 bucket.
C. Create a bucket policy on the S3 bucket.
D. Enable default encryption on the S3 bucket.
E. Create a lifecycle policy for the objects in the S3 bucket.

Answer: AB

Explanation:
To protect data in an S3 bucket from accidental deletion, versioning should be enabled, which enables you to preserve, retrieve, and restore every version of every object in an S3 bucket. Additionally, enabling MFA (multi-factor authentication) Delete on the S3 bucket adds an extra layer of protection by requiring an authentication token in addition to the user's access keys to delete objects in the bucket.
Reference:
AWS S3 Versioning documentation: https://docs.aws.amazon.com/AmazonS3/latest/dev/Versioning.html
AWS S3 MFA Delete documentation: https://docs.aws.amazon.com/AmazonS3/latest/dev/UsingMFADelete.html

NEW QUESTION 79
- (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 tagge
C. Tag those resources manually.
D. Write API calls to check all resources for proper tag allocatio
E. Periodically run the code on an EC2 instance.
F. Write API calls to check all resources for proper tag allocatio
G. Schedule an AWS Lambda function through Amazon CloudWatch to periodically run the code.

Answer: A

Explanation:
To ensure all Amazon EC2 instances, Amazon RDS DB instances, and Amazon Redshift clusters are configured with tags, a solutions architect should use AWS Config rules to define and detect resources that are not properly tagged. AWS Config rules are a set of customizable rules that AWS Config uses to evaluate AWS resource configurations for compliance with best practices and company policies. Using AWS Config rules can minimize the effort of configuring and operating this check because it automates the process of identifying non-compliant resources and notifying the responsible teams. Reference:
AWS Config Developer Guide: AWS Config Rules (https://docs.aws.amazon.com/config/latest/developerguide/evaluate-config_use-managed- rules.html)

NEW QUESTION 83
- (Topic 1)
A company is developing a two-tier web application on AWS. The company's developers have deployed the application on an Amazon EC2 instance that connects directly to a backend Amazon RDS database. The company must not hardcode database credentials in the application. The company must also implement a solution to automatically rotate the database credentials on a regular basis.
Which solution will meet these requirements with the LEAST operational overhead?

A. Store the database credentials in the instance metadat

B. Use Amazon EventBridge (Amazon CloudWatch Events) rules to run a scheduled AWS Lambda function that updates the RDS credentials and instance metadata at the same time.
C. Store the database credentials in a configuration file in an encrypted Amazon S3 bucke
D. Use Amazon EventBridge (Amazon CloudWatch Events) rules to run a scheduled AWS Lambda function that updates the RDS credentials and the credentials in the configuration file at the same tim
E. Use S3 Versioning to ensure the ability to fall back to previous values.
F. Store the database credentials as a secret in AWS Secrets Manage
G. Turn on automatic rotation for the secre
H. Attach the required permission to the EC2 role to grant access to the secret.
I. Store the database credentials as encrypted parameters in AWS Systems Manager Parameter Stor
J. Turn on automatic rotation for the encrypted parameter
K. Attach the required permission to the EC2 role to grant access to the encrypted parameters.

Answer: C

Explanation:
https://docs.aws.amazon.com/secretsmanager/latest/userguide/create_database_secret.ht ml

NEW QUESTION 84
- (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 perio
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-Tierin
D. Use an IAM policy to deny deletion of the record
E. After 10 years, change the IAM policy to allow deletion.
F. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 Glacier Deep Archive after 1 yea
G. Use S3 Object Lock in compliance mode for a period of 10 years.
H. Use an S3 Lifecycle policy to transition the records from S3 Standard to S3 One Zone-Infrequent Access (S3 One Zone-IA) after 1 yea
I. Use S3 Object Lock in governance mode for a period of 10 years.

Answer: C

Explanation:
To meet the requirements of immediately accessible records for 1 year and then archived for an additional 9 years with maximum resiliency, we can use S3 Lifecycle policy to transition records from S3 Standard to S3 Glacier Deep Archive after 1 year. And to ensure that the records cannot be deleted by anyone, including administrative and root users, we can use S3 Object Lock in compliance mode for a period of 10 years. Therefore, the correct answer is option C.
Reference: https://docs.aws.amazon.com/AmazonS3/latest/userguide/object-lock.html

NEW QUESTION 86
- (Topic 1)
A social media company allows users to upload images to its website. The website runs on Amazon EC2 instances. During upload requests, the website resizes the images to a standard size and stores the resized images in Amazon S3. Users are experiencing slow upload requests to the website.
The company needs to reduce coupling within the application and improve website performance. A solutions architect must design the most operationally efficient process for image uploads.
Which combination of actions should the solutions architect take to meet these requirements? (Choose two.)

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

Answer: CD

Explanation:
Amazon S3 is a highly scalable and durable object storage service that can store and retrieve any amount of data from anywhere on the web1. Users can configure the application to upload images directly from each user's browser to Amazon S3 through the use of a presigned URL. A presigned URL is a URL that gives access to an object in an S3 bucket for a limited time and with a specific action, such as uploading an object2. Users can generate a presigned URL programmatically using the AWS SDKs or AWS CLI. By using a presigned URL, users can reduce coupling within the application and improve website performance, as they do not need to send the images to the web server first. AWS Lambda is a serverless compute service that runs code in response to events and automatically manages the underlying compute resources3. Users can configure S3 Event Notifications to invoke an AWS Lambda function when an image is uploaded. S3 Event Notifications is a feature that allows users to receive notifications when certain events happen in an S3 bucket, such as object creation or deletion. Users can configure S3 Event Notifications to invoke a Lambda function that resizes the image and stores it back in the same or a different S3 bucket. This way, users can offload the image resizing task from the web server to Lambda.

NEW QUESTION 91
- (Topic 1)
A company receives 10 TB of instrumentation data each day from several machines located at a single factory. The data consists of JSON files stored on a storage area network (SAN) in an on-premises data center located within the factory. The company wants to send this data to Amazon S3 where it can be accessed by several additional systems that provide critical near-real-lime analytics. A secure transfer is important because the data is considered sensitive.
Which solution offers the MOST reliable data transfer?

A. AWS DataSync over public internet
B. AWS DataSync over AWS Direct Connect

C. AWS Database Migration Service (AWS DMS) over public internet
D. AWS Database Migration Service (AWS DMS) over AWS Direct Connect

Answer: B

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

NEW QUESTION 95
- (Topic 1)
A company recently signed a contract with an AWS Managed Service Provider (MSP) Partner for help with an application migration initiative. A solutions architect needs to share an Amazon Machine Image (AMI) from an existing AWS account with the MSP Partner's AWS account. The AMI is backed by Amazon Elastic Block Store (Amazon EBS) and uses a customer managed customer master key (CMK) to encrypt EBS volume snapshots.
What is the MOST secure way for the solutions architect to share the AMI with the MSP Partner's AWS account?

A. Make the encrypted AMI and snapshots publicly availabl
B. Modify the CMK's key policy to allow the MSP Partner's AWS account to use the key
C. Modify the launchPermission property of the AM
D. Share the AMI with the MSP Partner's AWS account onl
E. Modify the CMK's key policy to allow the MSP Partner's AWS account to use the key.
F. Modify the launchPermission property of the AMI Share the AMI with the MSP Partner's AWS account onl
G. Modify the CMK's key policy to trust a new CMK that is owned by the MSP Partner for encryption.
H. Export the AMI from the source account to an Amazon S3 bucket in the MSP Partner's AWS accoun
I. Encrypt the S3 bucket with a CMK that is owned by the MSP Partner Copy and launch the AMI in the MSP Partner's AWS account.

Answer: B

Explanation:
Share the existing KMS key with the MSP external account because it has already been used to encrypt the AMI snapshot.
https://docs.aws.amazon.com/kms/latest/developerguide/key-policy-modifying-external- accounts.html

NEW QUESTION 99
- (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

Explanation:
The correct answer is Option D. Deploy an S3 VPC gateway endpoint into the VPC and attach an endpoint policy that allows access to the S3 buckets. By deploying an S3 VPC gateway endpoint, the application can access the S3 buckets over a private network connection within the VPC, eliminating the need for data transfer over the internet. This can help reduce data transfer fees as well as improve the performance of the application. The endpoint policy can be used to specify which S3 buckets the application has access to.

NEW QUESTION 100
- (Topic 1)
A company recently migrated to AWS and wants to implement a solution to protect the traffic that flows in and out of the production VPC. The company had an inspection server in its on-premises data center. The inspection server performed specific operations such as traffic flow inspection and traffic filtering. The company wants to have the same functionalities in the AWS Cloud.
Which solution will meet these requirements?

A. Use Amazon GuardDuty for traffic inspection and traffic filtering in the production VPC
B. Use Traffic Mirroring to mirror traffic from the production VPC for traffic inspection and filtering.
C. Use AWS Network Firewall to create the required rules for traffic inspection and traffic filtering for the production VPC.
D. Use AWS Firewall Manager to create the required rules for traffic inspection and traffic filtering for the production VPC.

Answer: C

Explanation:
AWS Network Firewall supports both inspection and filtering as required

NEW QUESTION 101
- (Topic 1)
A company is using a SQL database to store movie data that is publicly accessible. The database runs on an Amazon RDS Single-AZ DB instance A script runs queries at random intervals each day to record the number of new movies that have been added to the database. The script must report a final total during business hours The company's development team notices that the database performance is inadequate for development tasks when the script is running. A solutions architect must recommend a solution to resolve this issue. Which solution will meet this requirement with the LEAST operational overhead?

A. Modify the DB instance to be a Multi-AZ deployment

B. Create a read replica of the database Configure the script to query only the read replica
C. Instruct the development team to manually export the entries in the database at the end of each day
D. Use Amazon ElastiCache to cache the common queries that the script runs against the database

Answer: B

NEW QUESTION 105
- (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

Explanation:
The storage solution that will meet these requirements most cost-effectively is B: Create an S3 Lifecycle configuration to transition objects from S3 Standard to S3 Glacier Deep Archive after 1 month. Amazon S3 Glacier Deep Archive is a secure, durable, and extremely low-cost Amazon S3 storage class for long-term retention of data that is rarely accessed and for which retrieval times of several hours are acceptable. It is the lowest-cost storage option in Amazon S3, making it a cost-effective choice for storing backup files that are not accessed after 1 month. You can use an S3 Lifecycle configuration to automatically transition objects from S3 Standard to S3 Glacier Deep Archive after 1 month. This will minimize the storage costs for the backup files that are not accessed frequently.

NEW QUESTION 108
- (Topic 1)
A survey company has gathered data for several years from areas m\ the United States. The company hosts the data in an Amazon S3 bucket that is 3 TB m size and growing. The company has started to share the data with a European marketing firm that has S3 buckets The company wants to ensure that its data transfer costs remain as low as possible
Which solution will meet these requirements?

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

Answer: A

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

NEW QUESTION 110
- (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 consol
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 consol
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 Servic
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

Explanation:
To provide single sign-on (SSO) across all the company's accounts while continuing to manage users and groups in its on-premises self-managed Microsoft Active Directory, the solution is to enable AWS Single Sign-On (SSO) from the AWS SSO console and 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. This solution is described in the AWS documentation

NEW QUESTION 115
- (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-govcloud-us-region/#:~:text=NAT%20Gateway%20is%20a%20highly,instances%20in%20a%20private%20subnet.
https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-comparison.html

NEW QUESTION 118
- (Topic 1)
A solutions architect is designing a two-tier web application The application consists of a public-facing web tier hosted on Amazon EC2 in public subnets The database tier consists of Microsoft SQL Server running on Amazon EC2 in a private subnet Security is a high priority for the company
How should security groups be configured in this situation? (Select TWO)

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

Answer: AC

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

NEW QUESTION 123
- (Topic 1)
A company has an automobile sales website that stores its listings in a database on Amazon RDS When an automobile is sold the listing needs to be removed from the website and the data must be sent to multiple target systems.
Which design should a solutions architect recommend?

A. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS> queue for the targets to consume
B. Create an AWS Lambda function triggered when the database on Amazon RDS is updated to send the information to an Amazon Simple Queue Service (Amazon SQS) FIFO queue for the targets to consume
C. Subscribe to an RDS event notification and send an Amazon Simple Queue Service (Amazon SQS) queue fanned out to multiple Amazon Simple Notification Service (Amazon SNS) topics Use AWS Lambda functions to update the targets
D. Subscribe to an RDS event notification and send an Amazon Simple Notification Service (Amazon SNS) topic fanned out to multiple Amazon Simple Queue Service (Amazon SQS) queues Use AWS Lambda functions to update the targets

Answer: D

Explanation:
https://docs.aws.amazon.com/lambda/latest/dg/services-rds.html https://docs.aws.amazon.com/lambda/latest/dg/with-sns.html

NEW QUESTION 128
- (Topic 1)
A company has an application that runs on Amazon EC2 instances and uses an Amazon
Aurora database. The EC2 instances connect to the database by using user names and passwords that are stored locally in a file. The company wants to minimize the operational overhead of credential management.
What should a solutions architect do to accomplish this goal?

A. Use AWS Secrets Manage
B. Turn on automatic rotation.
C. Use AWS Systems Manager Parameter Stor
D. Turn on automatic rotation.
E. Create an Amazon S3 bucket lo store objects that are encrypted with an AWS Key
F. Management Service (AWS KMS) encryption ke
G. Migrate the credential file to the S3 bucke
H. Point the application to the S3 bucket.
I. Create an encrypted Amazon Elastic Block Store (Amazon EBS) volume (or each EC2 instanc
J. Attach the new EBS volume to each EC2 instanc
K. Migrate the credential file to the new EBS volum
L. Point the application to the new EBS volume.

Answer: A

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

NEW QUESTION 130
- (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 instance
B. Connect the database by using native Java Database Connectivity (JDBC) drivers.
C. Change the platform from Aurora to Amazon DynamoD
D. Provision a DynamoDB Accelerator (DAX) cluste
E. Use the DAX client SDK to point the existing DynamoDB API calls at the DAX cluster.
F. Set up two Lambda function
G. Configure one function to receive the informatio
H. Configure the other function to load the information into the databas
I. Integrate the Lambda functions by using Amazon Simple Notification Service (Amazon SNS).
J. Set up two Lambda function
K. Configure one function to receive the informatio
L. Configure the other function to load the information into the databas
M. 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 135
- (Topic 1)
A company uses AWS Organizations to manage multiple AWS accounts for different departments. The management account has an Amazon S3 bucket that contains project reports. The company wants to limit access to this S3 bucket to only users of accounts within the organization in AWS Organizations.
Which solution meets these requirements with the LEAST amount of operational overhead?

A. Add the aws:PrincipalOrgID global condition key with a reference to the organization ID to the S3 bucket policy.
B. Create an organizational unit (OU) for each departmen
C. Add the aws:PrincipalOrgPaths global condition key to the S3 bucket policy.
D. Use AWS CloudTrail to monitor the CreateAccount, InviteAccountToOrganization, LeaveOrganization, and RemoveAccountFromOrganization event
E. Update the S3 bucket policy accordingly.
F. Tag each user that needs access to the S3 bucke
G. Add the aws:PrincipalTag global condition key to the S3 bucket policy.

Answer: A

Explanation:
https://aws.amazon.com/blogs/security/control-access-to-aws-resources-by-using-the-aws-organization-of-iam-principals/
The aws:PrincipalOrgID global key provides an alternative to listing all the account IDs for all AWS accounts in an organization. For example, the following Amazon S3 bucket policy allows members of any account in the XXX organization to add an object into the
examtopics bucket.
{"Version": "2020-09-10",
"Statement": {
"Sid": "AllowPutObject", "Effect": "Allow",
"Principal": "*",
"Action": "s3:PutObject",
"Resource": "arn:aws:s3:::examtopics/*", "Condition": {"StringEquals":
{"aws:PrincipalOrgID":["XXX"]}}}}
https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_condition- keys.html

NEW QUESTION 139
- (Topic 1)
A company is running a business-critical web application on Amazon EC2 instances behind an Application Load Balancer. The EC2 instances are in an Auto Scaling group. The application uses an Amazon Aurora PostgreSQL database that is deployed in a single Availability Zone. The company wants the application to be highly available with minimum downtime and minimum loss of data.
Which solution will meet these requirements with the LEAST operational effort?

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

Answer: B

Explanation:
To achieve high availability with minimum downtime and minimum loss of data, the Auto Scaling group should be configured to use multiple Availability Zones to ensure that there is no single point of failure. The database should be configured as Multi- AZ to enable automatic failover in case of an outage in the primary Availability Zone. Additionally, an Amazon RDS Proxy instance can be used to improve the scalability and availability of the database by reducing connection failures and improving failover times.

NEW QUESTION 140
- (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 foradministration.
B. Attach the appropriate IAM role to each existing instance and new instanc
C. Use AWS Systems Manager Session Manager to establish a remote SSH session.
D. Create an administrative SSH key pai
E. Load the public key into each EC2 instanc
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 connectio
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 141
- (Topic 2)
A company hosts a two-tier application on Amazon EC2 instances and Amazon RDS. The application's demand varies based on the time of day. The load is minimal after work hours and on weekends. The EC2 instances run in an EC2 Auto Scaling group that is configured with a minimum of two instances and a maximum of five instances. The application must be available at all times, but the company is concerned about overall cost.
Which solution meets the availability requirement MOST cost-effectively?

A. Use all EC2 Spot Instance
B. Stop the RDS database when it is not in use.
C. Purchase EC2 Instance Savings Plans to cover five EC2 instance
D. Purchase an RDS Reserved DB Instance
E. Purchase two EC2 Reserved Instances Use up to three additional EC2 Spot Instances as neede
F. Stop the RDS database when it is not in use.
G. Purchase EC2 Instance Savings Plans to cover two EC2 instance
H. Use up to three additional EC2 On-Demand Instances as neede
I. Purchase an RDS Reserved DB Instance.

Answer: C

Explanation:
This solution meets the requirements of a two-tier application that has a variable demand based on the time of day and must be available at all times, while minimizing the overall cost. EC2 Reserved Instances can provide significant savings compared to On-Demand Instances for the baseline level of usage, and they can guarantee capacity reservation when needed. EC2 Spot Instances can provide up to 90% savings compared to On- Demand Instances for any additional capacity that the application needs during peak hours. Spot Instances are suitable for stateless applications that can tolerate interruptions and can be replaced by other instances. Stopping the RDS database when it is not in use can reduce the cost of running the database tier.
Option A is incorrect because using all EC2 Spot Instances can affect the availability of the application if there are not enough spare capacity or if the Spot price exceeds the maximum price. Stopping the RDS database when it is not in use can reduce the cost of running the database tier, but it can also affect the availability of the application. Option B is incorrect because purchasing EC2 Instance Savings Plans to cover five EC2 instances can lock in a fixed amount of compute usage per hour, which may not match the actual usage pattern of the application. Purchasing an RDS Reserved DB Instance can provide savings for the database tier, but it does not allow stopping the database when it is not in use. Option D is incorrect because purchasing EC2 Instance Savings Plans to cover two EC2 instances can lock in a fixed amount of compute usage per hour, which may not match the
actual usage pattern of the application. Using up to three additional EC2 On-Demand Instances as needed can incur higher costs than using Spot Instances.
References:
? https://aws.amazon.com/ec2/pricing/reserved-instances/
? https://aws.amazon.com/ec2/spot/
? https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_StopInstance.html

NEW QUESTION 143
- (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

Explanation:
This solution meets the requirements of saving money on storage while keeping the most accessed files readily available for the users. S3 Lifecycle policy can automatically move objects from one storage class to another based on predefined rules. S3 Standard-IA is a lower-cost storage class for data that is accessed less frequently, but requires rapid access when needed. It is suitable for ringtones older than 90 days that are downloaded infrequently.
Option A is incorrect because configuring S3 Standard-IA for the initial storage tier of the objects can incur higher costs for frequent access and retrieval fees.
Option B is incorrect
because moving the files to S3 Intelligent-Tiering can incur additional monitoring and automation fees that may not be necessary for ringtones older than 90 days.
Option C is incorrect because using S3 inventory to manage objects and move them to S3 Standard-IA can be complex and time-consuming, and it does not provide automatic cost savings. References:
? https://aws.amazon.com/s3/storage-classes/
? https://aws.amazon.com/s3/cloud-storage-cost-optimization-ebook/

NEW QUESTION 146
- (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 gatewa
B. Configure the route table for the public subnets to send traffic to Amazon S3 through the NAT gateway.
C. Configure the security group for the EC2 instances to restrict outbound traffic so that only traffic to the S3 prefix list is permitted.
D. Move the EC2 instances to private subnet
E. Create a VPC endpoint for Amazon S3, and link the endpoint to the route table for the private subnets
F. Remove the internet gateway from the VP
G. Set up an AWS Direct Connect connection, and route traffic to Amazon S3 over the Direct Connect connection.

Answer: C

Explanation:
To meet the new requirement of transferring files over a private route, the EC2 instances should be moved to private subnets, which do not have direct access to the internet. This ensures that the traffic for file transfers does not go over the internet. To enable the EC2 instances to access Amazon S3, a VPC endpoint for Amazon S3 can be created. VPC endpoints allow resources within a VPC to communicate with resources in other services without the traffic being sent over the internet. By linking the VPC endpoint to the route table for the private subnets, the EC2 instances can access Amazon S3 over a
private connection within the VPC.

NEW QUESTION 149
- (Topic 2)
A company wants to direct its users to a backup static error page if the company's primary website is unavailable. The primary website's DNS records are hosted in Amazon Route 53. The domain is pointing to an Application Load Balancer (ALB). The company needs a solution that minimizes changes and infrastructure overhead.
Which solution will meet these requirements?

A. Update the Route 53 records to use a latency routing polic
B. Add a static error page that is hosted in an Amazon S3 bucket to the records so that the traffic is sent to the most responsive endpoints.
C. Set up a Route 53 active-passive failover configuratio
D. Direct traffic to a static error page that is hosted in an Amazon S3 bucket when Route 53 health checks determine that the ALB endpoint is unhealthy.
E. Set up a Route 53 active-active configuration with the ALB and an Amazon EC2 instance that hosts a static error page as endpoint
F. Configure Route 53 to send requests to the instance only if the health checks fail for the ALB.
G. Update the Route 53 records to use a multivalue answer routing polic
H. Create a health chec
I. Direct traffic to the website if the health check passe
J. Direct traffic to a static error page that is hosted in Amazon S3 if the health check does not pass.

Answer: B

Explanation:
This solution meets the requirements of directing users to a backup static error page if the primary website is unavailable, minimizing changes and infrastructure overhead. Route 53 active-passive failover configuration can route traffic to a primary resource when it is healthy or to a secondary resource when the primary resource is unhealthy. Route 53 health checks can monitor the health of the ALB endpoint and trigger the failover when needed. The static error page can be hosted in an S3 bucket that is configured as a website, which is a simple and cost-effective way to serve static content.
Option A is incorrect because using a latency routing policy can route traffic based on the lowest network latency for users, but it does not provide failover functionality. Option C is incorrect because using an active-active configuration with the ALB and an EC2 instance can increase the infrastructure overhead and complexity, and it does not guarantee that the EC2 instance will always be healthy. Option D is incorrect because using a multivalue answer routing policy can return multiple values for a query, but it does not provide failover functionality.
References:
? https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/routing-policy- failover.html
? https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/dns-failover.html
? https://docs.aws.amazon.com/AmazonS3/latest/userguide/WebsiteHosting.html

NEW QUESTION 153
- (Topic 2)
A company needs to save the results from a medical trial to an Amazon S3 repository. The repository must allow a few scientists to add new files and must restrict all other users to read-only access. No users can have the ability to modify or delete any files in the repository. The company must keep every file in the repository for a minimum of 1 year after its creation date.
Which solution will meet these requirements?

A. Use S3 Object Lock In governance mode with a legal hold of 1 year
B. Use S3 Object Lock in compliance mode with a retention period of 365 days.
C. Use an IAM role to restrict all users from deleting or changing objects in the S3 bucket Use an S3 bucket policy to only allow the IAM role

D. Configure the S3 bucket to invoke an AWS Lambda function every tune an object is added Configure the function to track the hash of the saved object to that modified objects can be marked accordingly

Answer: B

Explanation:
In compliance mode, a protected object version can't be overwritten or deleted by any user, including the root user in your AWS account. When an object is locked in compliance mode, its retention mode can't be changed, and its retention period can't be shortened. Compliance mode helps ensure that an object version can't be overwritten or deleted for the duration of the retention period. In governance mode, users can't overwrite or delete an object version or alter its lock settings unless they have special permissions. With governance mode, you protect objects against being deleted by most users, but you can still grant some users permission to alter the retention settings or delete the object if necessary. In Governance mode, Objects can be deleted by some users with special permissions, this is against the requirement.
Compliance:
- Object versions can't be overwritten or deleted by any user, including the root user
- Objects retention modes can't be changed, and retention periods can't be shortened
Governance:
- Most users can't overwrite or delete an object version or alter its lock settings
- Some users have special permissions to change the retention or delete the object

NEW QUESTION 156
- (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 acces
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 acces
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

Explanation:
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps_examples_vpc.html#example_vpc_2

NEW QUESTION 159
- (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 foe 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 me databases to an Amazon Redshift duster
D. Use an AWS Glue extract transform, and toad (ETL) job to convert the data into JSON format Load the data into multiple Amazon OpenSearch Service (Amazon Elasticsearch Service) dusters
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: AE

Explanation:
Amazon Athena is the best choice for running one-time queries on streaming data. Although Amazon Kinesis Data Analytics provides an easy and familiar standard SQL language to analyze streaming data in real-time, it is designed for continuous queries rather than one-time queries[1]. On the other hand, Amazon Athena is a serverless interactive query service that allows querying data in Amazon S3 using SQL. It is optimized for ad-hoc querying and is ideal for running one-time queries on streaming data[2].AWS Lake Formation uses as a central place to have all your data for analytics purposes (E). Athena integrate perfect with S3 and can makes queries (A).

NEW QUESTION 161
- (Topic 2)
A solutions architect needs to help a company optimize the cost of running an application on AWS. The application will use Amazon EC2 instances, AWS Fargate, and AWS Lambda for compute within the architecture.
The EC2 instances will run the data ingestion layer of the application. EC2 usage will be sporadic and unpredictable. Workloads that run on EC2 instances can be interrupted at any time. The application front end will run on Fargate, and Lambda will serve the API layer. The front-end utilization and API layer utilization will be predictable over the course of the next year.
Which combination of purchasing options will provide the MOST cost-effective solution for hosting this application? (Choose two.)

A. Use Spot Instances for the data ingestion layer
B. Use On-Demand Instances for the data ingestion layer
C. Purchase a 1-year Compute Savings Plan for the front end and API layer.
D. Purchase 1-year All Upfront Reserved instances for the data ingestion layer.
E. Purchase a 1-year EC2 instance Savings Plan for the front end and API layer.

Answer: AC

Explanation:
EC2 instance Savings Plan saves 72% while Compute Savings Plans saves 66%. But according to link, it says "Compute Savings Plans provide the most flexibility and help to reduce your costs by up to 66%. These plans automatically apply to EC2 instance usage regardless of instance family, size, AZ, region, OS or tenancy, and also apply to Fargate and Lambda usage." EC2 instance Savings Plans are not applied to Fargate or Lambda

NEW QUESTION 165
- (Topic 2)
A company wants to use the AWS Cloud to make an existing application highly available and resilient. The current version of the application resides in the company's data center. The application recently experienced data loss after a database server crashed because of an unexpected power outage.
The company needs a solution that avoids any single points of failure. The solution must give the application the ability to scale to meet user demand.
Which solution will meet these requirements?

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

Answer: A

Explanation:
Deploy the application servers by using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones. Use an Amazon RDS DB instance in a Multi-AZ configuration. To make an existing application highly available and resilient while avoiding any single points of failure and giving the application the ability to scale to meet user demand, the best solution would be to deploy the application servers using Amazon EC2 instances in an Auto Scaling group across multiple Availability Zones and use an Amazon RDS DB instance in a Multi-AZ configuration. By using an Amazon RDS DB instance in a Multi-AZ configuration, the database is automatically replicated across multiple Availability Zones, ensuring that the database is highly available and can withstand the failure of a single Availability Zone. This provides fault tolerance and avoids any single points of failure.

NEW QUESTION 167
- (Topic 2)
A company is migrating its on-premises PostgreSQL database to Amazon Aurora PostgreSQL. The on-premises database must remain online and accessible during the migration. The Aurora database must remain synchronized with the on-premises database.
Which combination of actions must a solutions architect take to meet these requirements? (Choose two.)

A. Create an ongoing replication task.
B. Create a database backup of the on-premises database
C. Create an AWS Database Migration Service (AWS DMS) replication server
D. Convert the database schema by using the AWS Schema Conversion Tool (AWS SCT).
E. Create an Amazon EventBridge (Amazon CloudWatch Events) rule to monitor the database synchronization

Answer: AC

Explanation:
AWS Database Migration Service supports homogeneous migrations such as Oracle to Oracle, as well as heterogeneous migrations between different database platforms, such as Oracle or Microsoft SQL Server to Amazon Aurora. With AWS Database Migration Service, you can also continuously replicate data with low latency from any supported source to any supported target. For example, you can replicate from multiple sources to Amazon Simple Storage Service (Amazon S3) to build a highly available and scalable data lake solution. You can also consolidate databases into a petabyte-scale data warehouse by streaming data to Amazon Redshift. Learn more about the supported source and target databases. https://aws.amazon.com/dms/

NEW QUESTION 170
- (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.ht
ml.

NEW QUESTION 175
- (Topic 2)
A company runs an application using Amazon ECS. The application creates esi/ed versions of an original image and then makes Amazon S3 API calls to store the

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

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

Answer: B

Explanation:
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-ecs-taskdefinition.html

NEW QUESTION 178
- (Topic 2)
An online retail company has more than 50 million active customers and receives more than 25,000 orders each day. The company collects purchase data for customers and stores this data in Amazon S3. Additional customer data is stored in Amazon RDS.
The company wants to make all the data available to various teams so that the teams can perform analytics. The solution must provide the ability to manage fine-grained permissions for the data and must minimize operational overhead.
Which solution will meet these requirements?

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

Answer: C

Explanation:
To make all the data available to various teams and minimize operational overhead, the company can create a data lake by using AWS Lake Formation. This will allow the company to centralize all the data in one place and use fine-grained access controls to manage access to the data. To meet the requirements of the company, the solutions architect can create a data lake by using AWS Lake Formation, create an AWS Glue JDBC connection to Amazon RDS, and register the S3 bucket in Lake Formation. The solutions architect can then use Lake Formation access controls to limit access to the data. This solution will provide the ability to manage fine-grained permissions for the data and minimize operational overhead.

NEW QUESTION 183
- (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%20digitally,a%20broad%20set%20of%20industry%20and%20regional% 20compliance%20regimes.

NEW QUESTION 187
- (Topic 2)
A company has an ecommerce checkout workflow that writes an order to a database and calls a service to process the payment. Users are experiencing timeouts during the checkout process. When users resubmit the checkout form, multiple unique orders are created for the same desired transaction.
How should a solutions architect refactor this workflow to prevent the creation of multiple orders?

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

Answer: D

Explanation:

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

NEW QUESTION 191
- (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 bucke
B. Load the data into the new S3 bucke
C. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Regio
D. Use server-side encryption with AWS KMS multi-Region kays (SSE-KMS). Use Amazon Athena to query the data.
E. Create a new S3 bucke
F. Load the data into the new S3 bucke
G. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Regio
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 bucke
J. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Regio
K. Use server-side encryption with Amazon S3managed encryption keys (SSE-S3). Use Amazon Athena to query the data.
L. Load the data into the existing S3 bucke
M. Use S3 Cross-Region Replication (CRR) to replicate encrypted objects to an S3 bucket in another Regio
N. Use server-side encryption with Amazon S3 managed encryption keys (SSE-S3). Use Amazon RDS to query the data.

Answer: A

Explanation:
This solution meets the requirements of a serverless solution, encryption, replication, and SQL analysis with the least operational overhead. Amazon Athena is a serverless interactive query service that can analyze data in S3 using standard SQL. S3 Cross-Region Replication (CRR) can replicate encrypted objects to an S3 bucket in another Region automatically. Server-side encryption with AWS KMS multi-Region keys (SSE-KMS) can encrypt the data at rest using keys that are replicated across multiple Regions. Creating a new S3 bucket can avoid potential conflicts with existing data or configurations.
Option B is incorrect because Amazon RDS is not a serverless solution and it cannot query data in S3 directly. Option C is incorrect because server-side encryption with Amazon S3 managed encryption keys (SSE-S3) does not use KMS keys and it does not support multi- Region replication. Option D is incorrect because Amazon RDS is not a serverless solution and it cannot query data in S3 directly. It is also incorrect for the same reason as option C. References:
? https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication-walkthrough-4.html
?https://aws.amazon.com/blogs/storage/considering-four-different-replication-options-for-data-in-amazon-s3/
? https://docs.aws.amazon.com/AmazonS3/latest/userguide/UsingEncryption.html
? https://aws.amazon.com/athena/

NEW QUESTION 194
- (Topic 2)
A media company is evaluating the possibility ot moving rts systems to the AWS Cloud The company needs at least 10 TB of storage with the maximum possible I/O performance for video processing. 300 TB of very durable storage for storing media content, and 900 TB of storage to meet requirements for archival media that is not in use anymore
Which set of services should a solutions architect recommend to meet these requirements?

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

Answer: A

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

NEW QUESTION 198
- (Topic 2)
A company runs its two-tier ecommerce website on AWS. The web tier consists of a load balancer that sends traffic to Amazon EC2 instances. The database tier uses an Amazon RDS DB instance. The EC2 instances and the RDS DB instance should not be exposed to the public internet. The EC2 instances require internet access to complete payment processing of orders through a third-party web service. The application must be highly available.
Which combination of configuration options will meet these requirements? (Choose two.)

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

Answer: AE

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

NEW QUESTION 200
- (Topic 2)
A solutions architect is creating a new Amazon CloudFront distribution for an application. Some of the information submitted by users is sensitive. The application uses HTTPS but needs another layer of security. The sensitive information should be protected throughout the entire application stack, and access to the information should be restricted to certain applications.
Which action should the solutions architect take?

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

Answer: C

Explanation:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/field-level- encryption.html
"With Amazon CloudFront, you can enforce secure end-to-end connections to origin servers by using HTTPS. Field-level encryption adds an additional layer of security that lets you protect specific data throughout system processing so that only certain applications can see it."

NEW QUESTION 203
- (Topic 2)
A company has an AWS account used for software engineering. The AWS account has access to the company's on-premises data center through a pair of AWS Direct Connect connections. All non-VPC traffic routes to the virtual private gateway.
A development team recently created an AWS Lambda function through the console. The development team needs to allow the function to access a database that runs in a private subnet in the company's data center.
Which solution will meet these requirements?

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

Answer: A

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

NEW QUESTION 207
- (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 connection
B. Configure retry logic in the Lambda functions for attempts to connect to the database
C. Set up Amazon ElastiCache tor Redls to cache commonly read items from the databas
D. Configure the Lambda functions to connect to ElastiCache for reads.
E. Add an Aurora Replica as a reader nod
F. Configure the Lambda functions to connect to the reader endpoint of the OB cluster rather than lo the writer endpoint.
G. Use Amazon ROS Proxy to create a prox
H. Set the DB cluster as the target database Configure the Lambda functions lo connect to the proxy rather than to the DB cluster.

Answer: D

Explanation:
1. database shows no signs of being overloaded. CPU, memory, and disk access metrics are all low==>A and C out. We cannot only add nodes instance or add read replica, because database workload is totally fine, very low. 2. "least operational overhead"==>B out, because b need to configure lambda. 3. ROS proxy: Shares infrequently used connections; High availability with failover; Drives increased efficiency==>proxy can leverage failover to redirect traffic from timeout rds instance to
healthy rds instance. So D is right.

NEW QUESTION 211
- (Topic 2)
A company has a highly dynamic batch processing job that uses many Amazon EC2 instances to complete it. The job is stateless in nature, can be started and stopped at any given time with no negative impact, and typically takes upwards of 60 minutes total to complete. The company has asked a solutions architect to design a scalable and cost- effective solution that meets the requirements of the job.
What should the solutions architect recommend?

A. Implement EC2 Spot Instances
B. Purchase EC2 Reserved Instances
C. Implement EC2 On-Demand Instances

D. Implement the processing on AWS Lambda

Answer: A

Explanation:
EC2 Spot Instances allow users to bid on spare Amazon EC2 computing capacity and can be a cost-effective solution for stateless, interruptible workloads that can be started and stopped at any time. Since the batch processing job is stateless, can be started and stopped at any time, and typically takes upwards of 60 minutes to complete, EC2 Spot Instances would be a good fit for this workload.

NEW QUESTION 216
- (Topic 2)
A hospital wants to create digital copies for its large collection of historical written records. The hospital will continue to add hundreds of new documents each day. The hospital's data team will scan the documents and will upload the documents to the AWS Cloud.
A solutions architect must implement a solution to analyze the documents, extract the medical information, and store the documents so that an application can run SQL queries on the data. The solution must maximize scalability and operational efficiency.
Which combination of steps should the solutions architect take to meet these requirements? (Select TWO.)

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

Answer: BE

Explanation:
This solution meets the requirements of creating digital copies for a large collection of historical written records, analyzing the documents, extracting the medical information, and storing the documents so that an application can run SQL queries on the data. Writing the document information to an Amazon S3 bucket can provide scalable and durable storage for the scanned files. Using Amazon Athena to query the data can provide serverless and interactive SQL analysis on data stored in S3. Creating an AWS Lambda function that runs when new documents are uploaded can provide event-driven and serverless processing of the scanned files. Using Amazon Textract to convert the documents to raw text can provide
accurate optical character recognition (OCR) and extraction of structured data such as tables and forms from documents using artificial intelligence (AI). Using Amazon Comprehend Medical to detect and extract relevant medical information from the text can provide natural language processing (NLP) service that uses machine learning that has been pre-trained to understand and extract health data from medical text.
Option A is incorrect because writing the document information to an Amazon EC2 instance that runs a MySQL database can increase the infrastructure overhead and complexity, and it may not be able to handle large volumes of data. Option C is incorrect because creating an Auto Scaling group of Amazon EC2 instances to run a custom application that processes the scanned files and extracts the medical information can increase the infrastructure overhead and complexity, and it may not be able to leverage existing AI and NLP services such as Textract and Comprehend Medical. Option D is incorrect because using Amazon Rekognition to convert the documents to raw text can provide image and video analysis, but it does not support OCR or extraction of structured data from documents. Using Amazon Transcribe Medical to detect and extract relevant medical information from the text can provide speech-to-text transcription service for medical conversations, but it does not support text analysis or extraction of health data from medical text.
References:
? https://aws.amazon.com/s3/
? https://aws.amazon.com/athena/
? https://aws.amazon.com/lambda/
? https://aws.amazon.com/textract/
? https://aws.amazon.com/comprehend/medical/

NEW QUESTION 217
- (Topic 2)
An ecommerce company has an order-processing application that uses Amazon API Gateway and an AWS Lambda function. The application stores data in an Amazon Aurora PostgreSQL database. During a recent sales event, a sudden surge in customer orders occurred. Some customers experienced timeouts and the application did not process the orders of those customers A solutions architect determined that the CPU utilization and memory utilization were high on the database because of a large number of open connections The solutions architect needs to prevent the timeout errors while making the least possible changes to the application.
Which solution will meet these requirements?

A. Configure provisioned concurrency for the Lambda function Modify the database to be a global database in multiple AWS Regions
B. Use Amazon RDS Proxy to create a proxy for the database Modify the Lambda function to use the RDS Proxy endpoint instead of the database endpoint
C. Create a read replica for the database in a different AWS Region Use query string parameters in API Gateway to route traffic to the read replica
D. Migrate the data from Aurora PostgreSQL to Amazon DynamoDB by using AWS Database Migration Service (AWS DMS| Modify the Lambda function to use the OynamoDB table

Answer: B

Explanation:
Many applications, including those built on modern serverless architectures, can have a large number of open connections to the database server and may open and close database connections at a high rate, exhausting database memory and compute resources. Amazon RDS Proxy allows applications to pool and share connections established with the database, improving database efficiency and application scalability. https://aws.amazon.com/id/rds/proxy/

NEW QUESTION 221
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