Amazon-Web-Services

Exam Questions SAP-C02

AWS Certified Solutions Architect - Professional

NEW QUESTION 1
- (Exam Topic 1)
A company is developing a new serverless API by using Amazon API Gateway and AWS Lambda. The company integrated the Lambda functions with API Gateway to use several shared libraries and custom classes.
A solutions architect needs to simplify the deployment of the solution and optimize for code reuse. Which solution will meet these requirements?

A. Deploy the shared libraries and custom classes into a Docker imag
B. Store the image in an S3 bucket.Create a Lambda layer that uses the Docker image as the sourc
C. Deploy the API's Lambda functions as Zip package
D. Configure the packages to use the Lambda layer.
E. Deploy the shared libraries and custom classes to a Docker imag
F. Upload the image to Amazon Elastic Container Registry (Amazon ECR). Create a Lambda layer that uses the Docker image as the sourc
G. Deploy the API's Lambda functions as Zip package
H. Configure the packages to use the Lambda layer.
I. Deploy the shared libraries and custom classes to a Docker container in Amazon Elastic Container Service (Amazon ECS) by using the AWS Fargate launch typ
J. Deploy the API's Lambda functions as Zip package
K. Configure the packages to use the deployed container as a Lambda layer.
L. Deploy the shared libraries, custom classes, and code for the API's Lambda functions to a Docker imag
M. Upload the image to Amazon Elastic Container Registry (Amazon ECR). Configure the API's Lambda functions to use the Docker image as the deployment package.

Answer: B

Explanation:
Deploying the shared libraries and custom classes to a Docker image and uploading the image to Amazon Elastic Container Registry (Amazon ECR) and creating a Lambda layer that uses the Docker image as the source. Then, deploying the API's Lambda functions as Zip packages and configuring the packages to use the Lambda layer would meet the requirements for simplifying the deployment and optimizing for code reuse.
A Lambda layer is a distribution mechanism for libraries, custom runtimes, and other function dependencies. It allows you to manage your in-development function code separately from your dependencies, this way you can easily update your dependencies without having to update your entire function code.
By deploying the shared libraries and custom classes to a Docker image and uploading the image to Amazon Elastic Container Registry (ECR), it makes it easy to manage and version the dependencies. This way, the company can use the same version of the dependencies across different Lambda functions.
By creating a Lambda layer that uses the Docker image as the source, the company can configure the API's Lambda functions to use the layer, reducing the need to include the dependencies in each function package, and making it easy to update the dependencies across all functions at once.
Reference:
AWS Lambda Layers documentation: https://docs.aws.amazon.com/lambda/latest/dg/configuration-layers.html
AWS Elastic Container Registry (ECR) documentation: https://aws.amazon.com/ecr/ Building Lambda Layers with Docker documentation: https://aws.amazon.com/blogs/compute/building-lambda-layers-with-docker/

NEW QUESTION 2
- (Exam Topic 1)
A company wants to migrate its data analytics environment from on premises to AWS The environment consists of two simple Node js applications One of the applications collects sensor data and loads it into a MySQL database The other application aggregates the data into reports When the aggregation jobs run. some of the load jobs fail to run correctly
The company must resolve the data loading issue The company also needs the migration to occur without interruptions or changes for the company's customers What should a solutions architect do to meet these requirements?

A. Set up an Amazon Aurora MySQL database as a replication target for the on-premises database Create an Aurora Replica for the Aurora MySQL database, and move the aggregation jobs to run against the Aurora Replica Set up collection endpomts as AWS Lambda functions behind a Network Load Balancer (NLB). and use Amazon RDS Proxy to wnte to the Aurora MySQL database When the databases are synced disable the replication job and restart the Aurora Replica as the primary instanc
B. Point the collector DNS record to the NLB.
C. Set up an Amazon Aurora MySQL database Use AWS Database Migration Service (AWS DMS) to perform continuous data replication from the on-premises database to Aurora Move the aggregation jobs to run against the Aurora MySQL database Set up collection endpomts behind an Application Load Balancer (ALB) as Amazon EC2 instances in an Auto Scaling group When the databases are synced, point the collector DNS record to the ALB Disable the AWS DMS sync task after the cutover from on premises to AWS
D. Set up an Amazon Aurora MySQL database Use AWS Database Migration Service (AWS DMS) to perform continuous data replication from the on-premises database to Aurora Create an Aurora Replica for the Aurora MySQL database and move the aggregation jobs to run against the Aurora Replica Set up collection endpoints as AWS Lambda functions behind an Application Load Balancer (ALB) and use Amazon RDS Proxy to write to the Aurora MySQL database When the databases are synced, point the collector DNS record to the ALB Disable the AWS DMS sync task after the cutover from on premises to AWS
E. Set up an Amazon Aurora MySQL database Create an Aurora Replica for the Aurora MySQL database and move the aggregation jobs to run against the Aurora Replica Set up collection endpoints as an Amazon Kinesis data stream Use Amazon Kinesis Data Firehose to replicate the data to the Aurora MySQL database When the databases are synced disable the replication job and restart the Aurora Replica as the primary instance Point the collector DNS record to the Kinesis data stream.

Answer: C

Explanation:
Set up an Amazon Aurora MySQL database. Use AWS Database Migration Service (AWS DMS) to perform continuous data replication from the on-premises database to Aurora. Create an Aurora Replica for the Aurora MySQL database, and move the aggregation jobs to run against the Aurora Replica. Set up collection endpoints as AWS Lambda functions behind an Application Load Balancer (ALB), and use Amazon RDS Proxy to write to the Aurora MySQL database. When the databases are synced, point the collector DNS record to the ALB. Disable the AWS DMS sync task after the cutover from on premises to AWS.
Amazon RDS Proxy allows applications to pool and share connections established with the database, improving database efficiency and application scalability. With RDS Proxy, failover times for Aurora and RDS databases are reduced by up to 66%

NEW QUESTION 3
- (Exam Topic 1)
An application is using an Amazon RDS for MySQL Multi-AZ DB instance in the us-east-1 Region. After a failover test, the application lost the connections to the database and could not re-establish the connections. After a restart of the application, the application re-established the connections.
A solutions architect must implement a solution so that the application can re-establish connections to the database without requiring a restart.

Which solution will meet these requirements?

A. Create an Amazon Aurora MySQL Serverless v1 DB instanc
B. Migrate the RDS DB instance to the Aurora Serverless v1 DB instanc
C. Update the connection settings in the application to point to the Aurora reader endpoint.
D. Create an RDS prox
E. Configure the existing RDS endpoint as a targe
F. Update the connection settings in the application to point to the RDS proxy endpoint.
G. Create a two-node Amazon Aurora MySQL DB cluste
H. Migrate the RDS DB instance to the Aurora DB cluste
I. Create an RDS prox
J. Configure the existing RDS endpoint as a targe
K. Update the connection settings in the application to point to the RDS proxy endpoint.
L. Create an Amazon S3 bucke
M. Export the database to Amazon S3 by using AWS Database Migration Service (AWS DMS). Configure Amazon Athena to use the S3 bucket as a data stor
N. Install the latest Open Database Connectivity (ODBC) driver for the applicatio
O. Update the connection settings in the application to point to the Athena endpoint

Answer: B

Explanation:
Amazon RDS Proxy is a fully managed database proxy service for Amazon Relational Database Service (RDS) that makes applications more scalable, resilient, and secure. It allows applications to pool and share connections to an RDS database, which can help reduce database connection overhead, improve scalability, and provide automatic failover and high availability.

NEW QUESTION 4
- (Exam Topic 1)
A solutions architect needs to advise a company on how to migrate its on-premises data processing application to the AWS Cloud. Currently, users upload input files through a web portal. The web server then stores the uploaded files on NAS and messages the processing server over a message queue. Each media file can take up to 1 hour to process. The company has determined that the number of media files awaiting processing is significantly higher during business hours, with the number of files rapidly declining after business hours.
What is the MOST cost-effective migration recommendation?

A. Create a queue using Amazon SQ
B. Configure the existing web server to publish to the new queue.When there are messages in the queue, invoke an AWS Lambda function to pull requests from the queue and process the file
C. Store the processed files in an Amazon S3 bucket.
D. Create a queue using Amazon
E. Configure the existing web server to publish to the new queu
F. When there are messages in the queue, create a new Amazon EC2 instance to pull requests from the queue and process the file
G. Store the processed files in Amazon EF
H. Shut down the EC2 instance after the task is complete.
I. Create a queue using Amazon M
J. Configure the existing web server to publish to the new queue.When there are messages in the queue, invoke an AWS Lambda function to pull requests from the queue and process the file
K. Store the processed files in Amazon EFS.
L. Create a queue using Amazon SO
M. Configure the existing web server to publish to the new queu
N. Use Amazon EC2 instances in an EC2 Auto Scaling group to pull requests from the queue and process the file
O. Scale the EC2 instances based on the SOS queue lengt
P. Store the processed files in an Amazon S3 bucket.

Answer: D

Explanation:
https://aws.amazon.com/blogs/compute/operating-lambda-performance-optimization-part-1/

NEW QUESTION 5
- (Exam Topic 1)
A company runs an loT platform on AWS loT sensors in various locations send data to the company's Node js API servers on Amazon EC2 instances running behind an Application Load Balancer The data is stored in an Amazon RDS MySQL DB instance that uses a 4 TB General Purpose SSD volume
The number of sensors the company has deployed in the field has increased over time and is expected to grow significantly The API servers are consistently overloaded and RDS metrics show high write latency
Which of the following steps together will resolve the issues permanently and enable growth as new sensors are provisioned, while keeping this platform cost-efficient? {Select TWO.)

A. Resize the MySQL General Purpose SSD storage to 6 TB to improve the volume's IOPS
B. Re-architect the database tier to use Amazon Aurora instead of an RDS MySQL DB instance and add read replicas
C. Leverage Amazon Kinesis Data Streams and AWS Lambda to ingest and process the raw data
D. Use AWS X-Ray to analyze and debug application issues and add more API servers to match the load
E. Re-architect the database tier to use Amazon DynamoDB instead of an RDS MySQL DB instance

Answer: CE

Explanation:
➢ Option C is correct because leveraging Amazon Kinesis Data Streams and AWS Lambda to ingest and process the raw data resolves the issues permanently and enable growth as new sensors are provisioned. Amazon Kinesis Data Streams is a serverless streaming data service that simplifies the capture, processing, and storage of data streams at any scale. Kinesis Data Streams can handle any amount of streaming data and process data from hundreds of thousands of sources with very low latency. AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. Lambda can be triggered by Kinesis Data Streams events and process the data records in real time. Lambda can also scale automatically based on the incoming data volume. By

using Kinesis Data Streams and Lambda, the company can reduce the load on the API servers and improve the performance and scalability of the data ingestion and processing layer3

> Option E is correct because re-architecting the database tier to use Amazon DynamoDB instead of an RDS MySQL DB instance resolves the issues permanently and enable growth as new sensors are provisioned. Amazon DynamoDB is a fully managed key-value and document database that delivers single-digit millisecond performance at any scale. DynamoDB supports auto scaling, which automatically adjusts read and write capacity based on actual traffic patterns. DynamoDB also supports on-demand capacity mode, which instantly accommodates up to double the previous peak traffic on a table. By using DynamoDB instead of RDS MySQL DB instance, the company can eliminate high write latency and improve scalability and performance of the database tier.
References: 1: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-volume-types.html 2:
https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/CHAP_AuroraOverview.html 3:
https://docs.aws.amazon.com/streams/latest/dev/introduction.html : https://docs.aws.amazon.com/lambda/latest/dg/welcome.html :
https://docs.aws.amazon.com/xray/latest/devguide/aws-xray.html : https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/Introduction.html :

NEW QUESTION 6
- (Exam Topic 1)
A company has migrated its forms-processing application to AWS. When users interact with the application, they upload scanned forms as files through a web application. A database stores user metadata and references to files that are stored in Amazon S3. The web application runs on Amazon EC2 instances and an Amazon RDS for PostgreSQL database.
When forms are uploaded, the application sends notifications to a team through Amazon Simple Notification Service (Amazon SNS). A team member then logs in and processes each form. The team member performs data validation on the form and extracts relevant data before entering the information into another system that uses an API.
A solutions architect needs to automate the manual processing of the forms. The solution must provide accurate form extraction, minimize time to market, and minimize long-term operational overhead.
Which solution will meet these requirements?

A. Develop custom libraries to perform optical character recognition (OCR) on the form
B. Deploy the libraries to an Amazon Elastic Kubernetes Service (Amazon EKS) cluster as an application tie
C. Use this tier to process the forms when forms are uploade
D. Store the output in Amazon S3. Parse this output by extracting the data into an Amazon DynamoDB tabl
E. Submit the data to the target system's AP
F. Host the new application tier on EC2 instances.
G. Extend the system with an application tier that uses AWS Step Functions and AWS Lambd
H. Configure this tier to use artificial intelligence and machine learning (AI/ML) models that are trained and hosted on an EC2 instance to perform optical character recognition (OCR) on the forms when forms are uploade
I. Store the output in Amazon S3. Parse this output by extracting the data that is required within the application tie
J. Submit the data to the target system's API.
K. Host a new application tier on EC2 instance
L. Use this tier to call endpoints that host artificial intelligence and machine learning (AI/ML) models that are trained and hosted in Amazon SageMaker to perform optical character recognition (OCR) on the form
M. Store the output in Amazon ElastiCach
N. Parse this output by extracting the data that is required within the application tie
O. Submit the data to the target system's API.
P. Extend the system with an application tier that uses AWS Step Functions and AWS Lambd
Q. Configure this tier to use Amazon Textract and Amazon Comprehend to perform optical character recognition (OCR) on the forms when forms are uploade
R. Store the output in Amazon S3. Parse this output by extracting the data that is required within the application tie
S. Submit the data to the target system's API.

Answer: D

Explanation:
Extend the system with an application tier that uses AWS Step Functions and AWS Lambda. Configure this tier to use Amazon Textract and Amazon Comprehend to perform optical character recognition (OCR) on the forms when forms are uploaded. Store the output in Amazon S3. Parse this output by extracting the data that is required within the application tier. Submit the data to the target system's API. This solution meets the requirements of accurate form extraction, minimal time to market, and minimal long-term operational overhead. Amazon Textract and Amazon Comprehend are fully managed and serverless services that can perform OCR and extract relevant data from the forms, which eliminates the need to develop custom libraries or train and host models. Using AWS Step Functions and Lambda allows for easy automation of the process and the ability to scale as needed.

NEW QUESTION 7
- (Exam Topic 1)
A software as a service (SaaS) based company provides a case management solution to customers A3 part of the solution. The company uses a standalone Simple Mail Transfer Protocol (SMTP) server to send email messages from an application. The application also stores an email template for acknowledgement email messages that populate customer data before the application sends the email message to the customer.
The company plans to migrate this messaging functionality to the AWS Cloud and needs to minimize operational overhead.
Which solution will meet these requirements MOST cost-effectively?

A. Set up an SMTP server on Amazon EC2 instances by using an AMI from the AWS Marketplac
B. Store the email template in an Amazon S3 bucke
C. Create an AWS Lambda function to retrieve the template from the S3 bucket and to merge the customer data from the application with the templat
D. Use an SDK in the Lambda function to send the email message.
E. Set up Amazon Simple Email Service (Amazon SES) to send email message
F. Store the email template in an Amazon S3 bucke
G. Create an AWS Lambda function to retrieve the template from the S3 bucket and to merge the customer data from the application with the templat
H. Use an SDK in the Lambda function to send the email message.
I. Set up an SMTP server on Amazon EC2 instances by using an AMI from the AWS Marketplac
J. Store the email template in Amazon Simple Email Service (Amazon SES) with parameters for the customer dat
K. Create an AWS Lambda function to call the SES template and to pass customer data to replace the parameter
L. Use the AWS Marketplace SMTP server to send the email message.
M. Set up Amazon Simple Email Service (Amazon SES) to send email message
N. Store the email template on Amazon SES with parameters for the customer dat
O. Create an AWS Lambda function to call the SendTemplatedEmail API operation and to pass customer data to replace the parameters and the email destination.

Answer: D

Explanation:
In this solution, the company can use Amazon SES to send email messages, which will minimize operational overhead as SES is a fully managed service that handles sending and receiving email messages. The company can store the email template on Amazon SES with parameters for the customer data and use an AWS Lambda function to call the SendTemplatedEmail API operation, passing in the customer data to replace the parameters and the email destination. This solution eliminates the need to set up and manage an SMTP server on EC2 instances, which can be costly and time-consuming.

NEW QUESTION 8
- (Exam Topic 1)
A company has migrated an application from on premises to AWS. The application frontend is a static website that runs on two Amazon EC2 instances behind an Application Load Balancer (ALB). The application backend is a Python application that runs on three EC2 instances behind another ALB. The EC2 instances are large, general purpose On-Demand Instances that were sized to meet the on-premises specifications for peak usage of the application.
The application averages hundreds of thousands of requests each month. However, the application is used mainly during lunchtime and receives minimal traffic during the rest of the day.
A solutions architect needs to optimize the infrastructure cost of the application without negatively affecting the application availability.
Which combination of steps will meet these requirements? (Choose two.)

A. Change all the EC2 instances to compute optimized instances that have the same number of cores as the existing EC2 instances.
B. Move the application frontend to a static website that is hosted on Amazon S3.
C. Deploy the application frontend by using AWS Elastic Beanstal
D. Use the same instance type for the nodes.
E. Change all the backend EC2 instances to Spot Instances.
F. Deploy the backend Python application to general purpose burstable EC2 instances that have the same number of cores as the existing EC2 instances.

Answer: BD

Explanation:
Moving the application frontend to a static website that is hosted on Amazon S3 will save cost as S3 is cheaper than running EC2 instances.
Using Spot instances for the backend EC2 instances will also save cost, as they are significantly cheaper than On-Demand instances. This will be suitable for the application, as it has minimal traffic during the rest of the day, and the availability of spot instances will not negatively affect the application's availability.
Reference:
Amazon S3 pricing: https://aws.amazon.com/s3/pricing/
Amazon EC2 Spot Instances documentation: https://aws.amazon.com/ec2/spot/ AWS Elastic Beanstalk documentation: https://aws.amazon.com/elasticbeanstalk/
Amazon Elastic Compute Cloud (EC2) pricing: https://aws.amazon.com/ec2/pricing/

NEW QUESTION 9
- (Exam Topic 1)
A software company hosts an application on AWS with resources in multiple AWS accounts and Regions. The application runs on a group of Amazon EC2 instances in an application VPC located in the us-east-1 Region with an IPv4 CIDR block of 10.10.0.0/16. In a different AWS account, a shared services VPC is located in the us-east-2 Region with an IPv4 CIDR block of 10.10.10.0/24. When a cloud engineer uses AWS CloudFormation to attempt to peer the application VPC with the shared services VPC, an error message indicates a peering failure. Which factors could cause this error? (Choose two.)

A. The IPv4 CIDR ranges of the two VPCs overlap
B. The VPCs are not in the same Region
C. One or both accounts do not have access to an Internet gateway
D. One of the VPCs was not shared through AWS Resource Access Manager
E. The IAM role in the peer accepter account does not have the correct permissions

Answer: AE

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/11/announcing-support-for-inter-region-vpc-peering/

NEW QUESTION 10
- (Exam Topic 1)
A company has a serverless application comprised of Amazon CloudFront, Amazon API Gateway, and AWS Lambda functions. The current deployment process of the application code is to create a new version number of the Lambda function and run an AWS CLI script to update. If the new function version has errors, another CLI script reverts by deploying the previous working version of the function. The company would like to decrease the time to deploy new versions of the application logic provided by the Lambda functions, and also reduce the time to detect and revert when errors are identified.
How can this be accomplished?

A. Create and deploy nested AWS CloudFormation stacks with the parent stack consisting of the AWS CloudFront distribution and API Gateway, and the child stack containing the Lambda functio
B. For changes to Lambda, create an AWS CloudFormation change set and deploy; if errors are triggered, revert the AWS CloudFormation change set to the previous version.
C. Use AWS SAM and built-in AWS CodeDeploy to deploy the new Lambda version, gradually shift traffic to the new version, and use pre-traffic and post-traffic test functions to verify cod
D. Rollback if Amazon CloudWatch alarms are triggered.
E. Refactor the AWS CLI scripts into a single script that deploys the new Lambda versio
F. When deployment is completed, the script tests execut
G. If errors are detected, revert to the previous Lambda version.
H. Create and deploy an AWS CloudFormation stack that consists of a new API Gateway endpoint that references the new Lambda versio
I. Change the CloudFront origin to the new API Gateway endpoint, monitor errors and if detected, change the AWS CloudFront origin to the previous API Gateway endpoint.

Answer: B

Explanation:
https://aws.amazon.com/about-aws/whats-new/2017/11/aws-lambda-supports-traffic-shifting-and-phased-deploy

NEW QUESTION 10
- (Exam Topic 1)
A company has 50 AWS accounts that are members of an organization in AWS Organizations Each account contains multiple VPCs The company wants to use AWS Transit Gateway to establish connectivity between the VPCs in each member account Each time a new member account is created, the company wants to automate the process of creating a new VPC and a transit gateway attachment.
Which combination of steps will meet these requirements? (Select TWO)

A. From the management account, share the transit gateway with member accounts by using AWS Resource Access Manager
B. Prom the management account, share the transit gateway with member accounts by using an AWS Organizations SCP
C. Launch an AWS CloudFormation stack set from the management account that automatical^/ creates a new VPC and a VPC transit gateway attachment in a member accoun
D. Associate the attachment with the transit gateway in the management account by using the transit gateway ID.
E. Launch an AWS CloudFormation stack set from the management account that automatical^ creates a new VPC and a peering transit gateway attachment in a member accoun
F. Share the attachment with the transit gateway in the management account by using a transit gateway service-linked role.
G. From the management account, share the transit gateway with member accounts by using AWS Service Catalog

Answer: AC

Explanation:
https://aws.amazon.com/blogs/mt/self-service-vpcs-in-aws-control-tower-using-aws-service-catalog/ https://docs.aws.amazon.com/vpc/latest/tgw/tgw-transit-gateways.html
https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-resource-ec2-transitgatewayattachme

NEW QUESTION 15
- (Exam Topic 1)
A publishing company's design team updates the icons and other static assets that an ecommerce web application uses. The company serves the icons and assets from an Amazon S3 bucket that is hosted in the company's production account. The company also uses a development account that members of the design team can access.
After the design team tests the static assets in the development account, the design team needs to load the assets into the S3 bucket in the production account. A solutions architect must provide the design team with access to the production account without exposing other parts of the web application to the risk of unwanted changes.
Which combination of steps will meet these requirements? (Select THREE.)

A. In the production account, create a new IAM policy that allows read and write access to the S3 bucket.
B. In the development account, create a new IAM policy that allows read and write access to the S3 bucket.
C. In the production account, create a rol
D. Attach the new policy to the rol
E. Define the development account as a trusted entity.
F. In the development account, create a rol
G. Attach the new policy to the rol
H. Define the production account as a trusted entity.
I. In the development account, create a group that contains all the IAM users of the design tea
J. Attach a different IAM policy to the group to allow the sts:AssumeRole action on the role in the production account.
K. In the development account, create a group that contains all tfje IAM users of the design tea
L. Attach a different IAM policy to the group to allow the sts;AssumeRole action on the role in the development account.

Answer: ACE

Explanation:
➢ A. In the production account, create a new IAM policy that allows read and write access to the S3 bucket. The policy grants the necessary permissions to access the assets in the production S3 bucket.
➢ C. In the production account, create a role. Attach the new policy to the role. Define the development account as a trusted entity. By creating a role and attaching the policy, and then defining the development account as a trusted entity, the development account can assume the role and access the production S3 bucket with the read and write permissions.
➢ E. In the development account, create a group that contains all the IAM users of the design team. Attach a different IAM policy to the group to allow the sts:AssumeRole action on the role in the production account. The IAM policy attached to the group allows the design team members to assume the role created in the production account, thereby giving them access to the production S3 bucket.
Step 1: Create a role in the Production Account; create the role in the Production account and specify the Development account as a trusted entity. You also limit the role permissions to only read and write access to the productionapp bucket. Anyone granted permission to use the role can read and write to the productionapp bucket. Step 2: Grant access to the role Sign in as an administrator in the Development account and allow the AssumeRole action on the UpdateApp role in the Production account. So, recap, production account you create the policy for S3, and you set development account as a trusted entity. Then on the development account you allow the sts:assumeRole action on the role in production account. https://docs.aws.amazon.com/IAM/latest/UserGuide/tutorial_cross-account-with-roles.html

NEW QUESTION 16
- (Exam Topic 1)
A software company has deployed an application that consumes a REST API by using Amazon API Gateway. AWS Lambda functions, and an Amazon DynamoDB table. The application is showing an increase in the number of errors during PUT requests. Most of the PUT calls come from a small number of clients that are authenticated with specific API keys.
A solutions architect has identified that a large number of the PUT requests originate from one client. The API is noncritical, and clients can tolerate retries of unsuccessful calls. However, the errors are displayed to customers and are causing damage to the API's reputation.
What should the solutions architect recommend to improve the customer experience?

A. Implement retry logic with exponential backoff and irregular variation in the client applicatio
B. Ensure that the errors are caught and handled with descriptive error messages.
C. Implement API throttling through a usage plan at the API Gateway leve
D. Ensure that the client application handles code 429 replies without error.
E. Turn on API caching to enhance responsiveness for the production stag

F. Run 10-minute load tests.Verify that the cache capacity is appropriate for the workload.
G. Implement reserved concurrency at the Lambda function level to provide the resources that are needed during sudden increases in traffic.

Answer: B

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/aws-batch-requests-error/ https://aws.amazon.com/premiumsupport/knowledge-center/api-gateway-429-limit/

NEW QUESTION 21
- (Exam Topic 1)
A company is running a critical application that uses an Amazon RDS for MySQL database to store data. The RDS DB instance is deployed in Multi-AZ mode.
A recent RDS database failover test caused a 40-second outage to the application A solutions architect needs to design a solution to reduce the outage time to less than 20 seconds.
Which combination of steps should the solutions architect take to meet these requirements? (Select THREE.)

A. Use Amazon ElastiCache for Memcached in front of the database
B. Use Amazon ElastiCache for Redis in front of the database.
C. Use RDS Proxy in front of the database
D. Migrate the database to Amazon Aurora MySQL
E. Create an Amazon Aurora Replica
F. Create an RDS for MySQL read replica

Answer: CDE

Explanation:
Migrate the database to Amazon Aurora MySQL. - Create an Amazon Aurora Replica. - Use RDS Proxy in front of the database. - These options are correct because they address the requirement of reducing the failover time to less than 20 seconds. Migrating to Amazon Aurora MySQL and creating an Aurora replica can reduce the failover time to less than 20 seconds. Aurora has a built-in, fault-tolerant storage system that can automatically detect and repair failures. Additionally, Aurora has a feature called "Aurora Global Database" which allows you to create read-only replicas across multiple AWS regions which can further help to reduce the failover time. Creating an Aurora replica can also help to reduce the failover time as it can take over as the primary DB instance in case of a failure. Using RDS proxy can also help to reduce the failover time as it can route the queries to the healthy DB instance, it also helps to balance the load across multiple DB instances.

NEW QUESTION 26
- (Exam Topic 1)
A company has an organization in AWS Organizations that has a large number of AWS accounts. One of the AWS accounts is designated as a transit account and has a transit gateway that is shared with all of the other AWS accounts AWS Site-to-Site VPN connections are configured between ail of the company's global offices and the transit account The company has AWS Config enabled on all of its accounts.
The company's networking team needs to centrally manage a list of internal IP address ranges that belong to the global offices Developers Will reference this list to gain access to applications securely.
Which solution meets these requirements with the LEAST amount of operational overhead?

A. Create a JSON file that is hosted in Amazon S3 and that lists all of the internal IP address ranges Configure an Amazon Simple Notification Service (Amazon SNS) topic in each of the accounts that can be involved when the JSON file is update
B. Subscribe an AWS Lambda function to the SNS topic to update all relevant security group rules with Vie updated IP address ranges.
C. Create a new AWS Config managed rule that contains all of the internal IP address ranges Use the rule to check the security groups in each of the accounts to ensure compliance with the list of IP address range
D. Configure the rule to automatically remediate any noncompliant security group that is detected.
E. In the transit account, create a VPC prefix list with all of the internal IP address range
F. Use AWS Resource Access Manager to share the prefix list with all of the other account
G. Use the shared prefix list to configure security group rules is the other accounts.
H. In the transit account create a security group with all of the internal IP address range
I. Configure the security groups in me other accounts to reference the transit account's securitygroup by using a nested security group reference of *<transit-account-id>./sg-1a2b3c4d".

Answer: C

Explanation:
Customer-managed prefix lists — Sets of IP address ranges that you define and manage. You can share your prefix list with other AWS accounts, enabling those accounts to reference the prefix list in their own resources. https://docs.aws.amazon.com/vpc/latest/userguide/managed-prefix-lists.html
a VPC prefix list is created in the transit account with all of the internal IP address ranges, and then shared to all of the other accounts using AWS Resource Access Manager. This allows for central management of the IP address ranges, and eliminates the need for manual updates to security group rules in each account. This solution also allows for compliance checks to be run using AWS Config and for any non-compliant security groups to be automatically remediated.

NEW QUESTION 27
- (Exam Topic 1)
A life sciences company is using a combination of open source tools to manage data analysis workflows and Docker containers running on servers in its on-premises data center to process genomics data Sequencing data is generated and stored on a local storage area network (SAN), and then the data is processed.
The research and development teams are running into capacity issues and have decided to re-architect their genomics analysis platform on AWS to scale based on workload demands and reduce the turnaround time from weeks to days
The company has a high-speed AWS Direct Connect connection Sequencers will generate around 200 GB of data for each genome, and individual jobs can take several hours to process the data with ideal compute capacity. The end result will be stored in Amazon S3. The company is expecting 10-15 job requests each day
Which solution meets these requirements?

A. Use regularly scheduled AWS Snowball Edge devices to transfer the sequencing data into AWS When AWS receives the Snowball Edge device and the data is loaded into Amazon S3 use S3 events to trigger an AWS Lambda function to process the data
B. Use AWS Data Pipeline to transfer the sequencing data to Amazon S3 Use S3 events to trigger an Amazon EC2 Auto Scaling group to launch custom-AMI EC2 instances running the Docker containers to process the data
C. Use AWS DataSync to transfer the sequencing data to Amazon S3 Use S3 events to trigger an AWS Lambda function that starts an AWS Step Functions

workflow Store the Docker images in Amazon Elastic Container Registry (Amazon ECR) and trigger AWS Batch to run the container and process the sequencing data
D. Use an AWS Storage Gateway file gateway to transfer the sequencing data to Amazon S3 Use S3 events to trigger an AWS Batch job that runs on Amazon EC2 instances running the Docker containers to process the data

Answer: C

Explanation:
AWS DataSync can be used to transfer the sequencing data to Amazon S3, which is a more efficient and faster method than using Snowball Edge devices. Once the data is in S3, S3 events can trigger an AWS Lambda function that starts an AWS Step Functions workflow. The Docker images can be stored in Amazon Elastic Container Registry (Amazon ECR) and AWS Batch can be used to run the container and process the sequencing data.

NEW QUESTION 30
- (Exam Topic 1)
An enterprise company wants to allow its developers to purchase third-party software through AWS Marketplace. The company uses an AWS Organizations account structure with full features enabled, and has a shared services account in each organizational unit (OU) that will be used by procurement managers. The procurement team's policy indicates that developers should be able to obtain third-party software from an approved list only and use Private Marketplace in AWS Marketplace to achieve this requirement . The procurement team wants administration of Private Marketplace to be restricted to a role named procurement-manager-role, which could be assumed by procurement managers Other IAM users groups, roles, and account administrators in the company should be denied Private Marketplace administrative access
What is the MOST efficient way to design an architecture to meet these requirements?

A. Create an IAM role named procurement-manager-role in all AWS accounts in the organization Add the PowerUserAccess managed policy to the role Apply an inline policy to all IAM users and roles in every AWS account to deny permissions on the AWSPrivateMarketplaceAdminFullAccess managed policy.
B. Create an IAM role named procurement-manager-role in all AWS accounts in the organization Add the AdministratorAccess managed policy to the role Define a permissions boundary with the AWSPrivateMarketplaceAdminFullAccess managed policy and attach it to all the developer roles.
C. Create an IAM role named procurement-manager-role in all the shared services accounts in the organization Add the AWSPrivateMarketplaceAdminFullAccess managed policy to the role Create an organization root-level SCP to deny permissions to administer Private Marketplace to everyone exceptthe role named procurement-manager-role Create another organization root-level SCP to deny permissions to create an IAM role named procurement-manager-role to everyone in the organization.
D. Create an IAM role named procurement-manager-role in all AWS accounts that will be used by developer
E. Add the AWSPrivateMarketplaceAdminFullAccess managed policy to the rol
F. Create an SCP in Organizations to deny permissions to administer Private Marketplace to everyone except the role named procurement-manager-rol
G. Apply the SCP to all the shared services accounts in the organization.

Answer: C

Explanation:
SCP to deny permissions to administer Private Marketplace to everyone except the role named procurement-manager-role.
https://aws.amazon.com/blogs/awsmarketplace/controlling-access-to-a-well-architected-private-marketplace-usi
This approach allows the procurement managers to assume the procurement-manager-role in shared services accounts, which have the AWSPrivateMarketplaceAdminFullAccess managed policy attached to it and can then manage the Private Marketplace. The organization root-level SCP denies the permission to administer Private Marketplace to everyone except the role named procurement-manager-role and another SCP denies the permission to create an IAM role named procurement-manager-role to everyone in the organization, ensuring that only the procurement team can assume the role and manage the Private Marketplace. This approach provides a centralized way to manage and restrict access to Private Marketplace while maintaining a high level of security.

NEW QUESTION 31
- (Exam Topic 1)
A company has developed APIs that use Amazon API Gateway with Regional endpoints. The APIs call AWS Lambda functions that use API Gateway authentication mechanisms. After a design review, a solutions architect identifies a set of APIs that do not require public access.
The solutions architect must design a solution to make the set of APIs accessible only from a VPC. All APIs need to be called with an authenticated user.
Which solution will meet these requirements with the LEAST amount of effort?

A. Create an internal Application Load Balancer (ALB). Create a target grou
B. Select the Lambda function to cal
C. Use the ALB DNS name to call the API from the VPC.
D. Remove the DNS entry that is associated with the API in API Gatewa
E. Create a hosted zone in Amazon Route 53. Create a CNAME record in the hosted zon
F. Update the API in API Gateway with the CNAME recor
G. Use the CNAME record to call the API from the VPC.
H. Update the API endpoint from Regional to private in API Gatewa
I. Create an interface VPC endpoint in the VP
J. Create a resource policy, and attach it to the AP
K. Use the VPC endpoint to call the API from the VPC.
L. Deploy the Lambda functions inside the VP
M. Provision an EC2 instance, and install an Apache server.From the Apache server, call the Lambda function
N. Use the internal CNAME record of the EC2 instance to call the API from the VPC.

Answer: C

Explanation:
This solution requires the least amount of effort as it only requires to update the API endpoint to private in API Gateway and create an interface VPC endpoint. Then create a resource policy and attach it to the API. This will make the API only accessible from the VPC and still keep the authentication mechanism intact.
Reference:
- https://aws.amazon.com/api-gateway/features/

NEW QUESTION 35
- (Exam Topic 1)
A company has created an OU in AWS Organizations for each of its engineering teams Each OU owns multiple AWS accounts. The organization has hundreds of

AWS accounts A solutions architect must design a solution so that each OU can view a breakdown of usage costs across its AWS accounts. Which solution meets these requirements?

A. Create an AWS Cost and Usage Report (CUR) for each OU by using AWS Resource Access Manager Allow each team to visualize the CUR through an Amazon QuickSight dashboard.
B. Create an AWS Cost and Usage Report (CUR) from the AWS Organizations management account- Allow each team to visualize the CUR through an Amazon QuickSight dashboard
C. Create an AWS Cost and Usage Report (CUR) in each AWS Organizations member account Allow each team to visualize the CUR through an Amazon QuickSight dashboard.
D. Create an AWS Cost and Usage Report (CUR) by using AWS Systems Manager Allow each team to visualize the CUR through Systems Manager OpsCenter dashboards

Answer: B

Explanation:
https://docs.aws.amazon.com/cur/latest/userguide/billing-cur-limits.html

NEW QUESTION 39
- (Exam Topic 1)
A security engineer determined that an existing application retrieves credentials to an Amazon RDS for MySQL database from an encrypted file in Amazon S3. For the next version of the application, the security engineer wants to implement the following application design changes to improve security:

- The database must use strong, randomly generated passwords stored in a secure AWS managed service.
- The application resources must be deployed through AWS CloudFormation.
- The application must rotate credentials for the database every 90 days.

A solutions architect will generate a CloudFormation template to deploy the application.
Which resources specified in the CloudFormation template will meet the security engineer's requirements with the LEAST amount of operational overhead?

A. Generate the database password as a secret resource using AWS Secrets Manage
B. Create an AWS Lambda function resource to rotate the database passwor
C. Specify a Secrets Manager RotationSchedule resource to rotate the database password every 90 days.
D. Generate the database password as a SecureString parameter type using AWS Systems Manager Parameter Stor
E. Create an AWS Lambda function resource to rotate the database passwor
F. Specify a Parameter Store RotationSchedule resource to rotate the database password every 90 days.
G. Generate the database password as a secret resource using AWS Secrets Manage
H. Create an AWS Lambda function resource to rotate the database passwor
I. Create an Amazon EventBridge scheduled rule resource to trigger the Lambda function password rotation every 90 days.
J. Generate the database password as a SecureString parameter type using AWS Systems Manager Parameter Stor
K. Specify an AWS AppSync DataSource resource to automatically rotate the database password every 90 days.

Answer: B

Explanation:
https://aws.amazon.com/blogs/security/how-to-securely-provide-database-credentials-to-lambda-functions-by-us
https://docs.aws.amazon.com/secretsmanager/latest/userguide/rotating-secrets.html
https://docs.aws.amazon.com/secretsmanager/latest/userguide/integrating_cloudformation.html

NEW QUESTION 43
- (Exam Topic 1)
A company wants to migrate an application to Amazon EC2 from VMware Infrastructure that runs in an on-premises data center. A solutions architect must preserve the software and configuration settings during the migration.
What should the solutions architect do to meet these requirements?

A. Configure the AWS DataSync agent to start replicating the data store to Amazon FSx for Windows FileServer Use the SMB share to host the VMware data stor
B. Use VM Import/Export to move the VMs to Amazon EC2.
C. Use the VMware vSphere client to export the application as an image in Open Virealization Format (OVF) format Create an Amazon S3 bucket to store the image in the destination AWS Regio
D. Create and apply an IAM role for VM Import Use the AWS CLI to run the EC2 import command.
E. . Configure AWS Storage Gateway for files service to export a Common Internet File System (CIFSJ shar
F. Create a backup copy to the shared folde
G. Sign in to the AWS Management Console and create an AMI from the backup copy Launch an EC2 instance that is based on the AMI.
H. Create a managed-instance activation for a hybrid environment in AWS Systems Manage
I. Download and install Systems Manager Agent on the on-premises VM Register the VM with Systems Manager to be a managed instance Use AWS Backup to create a snapshot of the VM and create an AM
J. Launch an EC2 instance that is based on the AMI

Answer: D

Explanation:
https://docs.aws.amazon.com/vm-import/latest/userguide/vmimport-image-import.html
- Export an OVF Template
- Create / use an Amazon S3 bucket for storing the exported images. The bucket must be in the Region where you want to import your VMs.
- Create an IAM role named vmimport.
- You'll use AWS CLI to run the import commands. https://aws.amazon.com/premiumsupport/knowledge-center/import-instances/

NEW QUESTION 44
- (Exam Topic 1)
A company uses Amazon S3 to store files and images in a variety of storage classes. The company's S3 costs have increased substantially during the past year.
A solutions architect needs to review data trends for the past 12 months and identity the appropriate storage class for the objects.
Which solution will meet these requirements?

A. Download AWS Cost and Usage Reports for the last 12 months of S3 usag
B. Review AWS Trusted Advisor recommendations for cost savings.
C. Use S3 storage class analysi
D. Import data trends into an Amazon QuickSight dashboard to analyze storage trends.
E. Use Amazon S3 Storage Len
F. Upgrade the default dashboard to include advanced metrics for storage trends.
G. Use Access Analyzer for S3. Download the Access Analyzer for S3 report for the last 12 month
H. Import the csvfile to an Amazon QuickSight dashboard.

Answer: B

Explanation:
https://docs.aws.amazon.com/AmazonS3/latest/userguide/storage_lens.html

NEW QUESTION 46
- (Exam Topic 1)
An AWS partner company is building a service in AWS Organizations using Its organization named org. This service requires the partner company to have access to AWS resources in a customer account, which is in a separate organization named org2 The company must establish least privilege security access using an API or command line tool to the customer account
What is the MOST secure way to allow org1 to access resources h org2?

A. The customer should provide the partner company with their AWS account access keys to log in and perform the required tasks
B. The customer should create an IAM user and assign the required permissions to the IAM user The customer should then provide the credentials to the partner company to log In and perform the required tasks.
C. The customer should create an IAM role and assign the required permissions to the IAM rol
D. The partner company should then use the IAM rote's Amazon Resource Name (ARN) when requesting access to perform the required tasks
E. The customer should create an IAM rote and assign the required permissions to the IAM rot
F. The partner company should then use the IAM rote's Amazon Resource Name (ARN). Including the external ID in the IAM role's trust pokey, when requesting access to perform the required tasks

Answer: C

Explanation:
https://docs.aws.amazon.com/IAM/latest/UserGuide/confused-deputy.html
This is the most secure way to allow org1 to access resources in org2 because it allows for least privilege security access. The customer should create an IAM role and assign the required permissions to the IAM role. The partner company should then use the IAM role's Amazon Resource Name (ARN) and include the external ID in the IAM role's trust policy when requesting access to perform the required tasks. This ensures that the partner company can only access the resources that it needs and only from the specific customer account.

NEW QUESTION 51
- (Exam Topic 1)
A company is subject to regulatory audits of its financial information. External auditors who use a single AWS account need access to the company's AWS account. A solutions architect must provide the auditors with secure, read-only access to the company's AWS account. The solution must comply with AWS security best practices.
Which solution will meet these requirements?

A. In the company's AWS account, create resource policies for all resources in the account to grant access to the auditors' AWS accoun
B. Assign a unique external ID to the resource policy.
C. In the company's AWS account create an IAM role that trusts the auditors' AWS account Create an IAM policy that has the required permission
D. Attach the policy to the rol
E. Assign a unique external ID to the role's trust policy.
F. In the company's AWS account, create an IAM use
G. Attach the required IAM policies to the IAM user.Create API access keys for the IAM use
H. Share the access keys with the auditors.
I. In the company's AWS account, create an IAM group that has the required permissions Create an IAM user in the company s account for each audito
J. Add the IAM users to the IAM group.

Answer: B

Explanation:
This solution will allow the external auditors to have read-only access to the company's AWS account while being compliant with AWS security best practices. By creating an IAM role, which is a secure and flexible way of granting access to AWS resources, and trusting the auditors' AWS account, the company can ensure that the auditors only have the permissions that are required for their role and nothing more. Assigning a unique external ID to the role's trust policy, it will ensure that only the auditors' AWS account can assume the role.
Reference:
AWS IAM Roles documentation: https://aws.amazon.com/iam/features/roles/ AWS IAM Best practices: https://aws.amazon.com/iam/security-best-practices/

NEW QUESTION 52
- (Exam Topic 1)
A company that uses AWS Organizations allows developers to experiment on AWS. As part of the landing zone that the company has deployed, developers use their company email address to request an account. The company wants to ensure that developers are not launching costly services or running services unnecessarily. The company must give developers a fixed monthly budget to limit their AWS costs.
Which combination of steps will meet these requirements? (Choose three.)

A. Create an SCP to set a fixed monthly account usage limi
B. Apply the SCP to the developer accounts.
C. Use AWS Budgets to create a fixed monthly budget for each developer's account as part of the account creation process.
D. Create an SCP to deny access to costly services and component
E. Apply the SCP to the developer accounts.
F. Create an IAM policy to deny access to costly services and component

G. Apply the IAM policy to the developer accounts.
H. Create an AWS Budgets alert action to terminate services when the budgeted amount is reached.Configure the action to terminate all services.
I. Create an AWS Budgets alert action to send an Amazon Simple Notification Service (Amazon SNS) notification when the budgeted amount is reache
J. Invoke an AWS Lambda function to terminate all services.

Answer: BCF

Explanation:

- Option A is incorrect because creating an SCP to set a fixed monthly account usage limit is not possible.
SCPs are policies that specify the services and actions that users and roles can use in the member accounts of an AWS Organization. SCPs cannot enforce budget limits or prevent users from launching
costly services or running services unnecessarily1
- Option B is correct because using AWS Budgets to create a fixed monthly budget for each developer's account as part of the account creation process meets the requirement of giving developers a fixed monthly budget to limit their AWS costs. AWS Budgets allows you to plan your service usage, service costs, and instance reservations. You can create budgets that alert you when your costs or usage exceed (or are forecasted to exceed) your budgeted amount2
- Option C is correct because creating an SCP to deny access to costly services and components meets the requirement of ensuring that developers are not launching costly services or running services
unnecessarily. SCPs can restrict access to certain AWS services or actions based on conditions such as region, resource tags, or request time. For example, an SCP can deny access to Amazon Redshift clusters or Amazon EC2 instances with certain instance types1
- Option D is incorrect because creating an IAM policy to deny access to costly services and components is not sufficient to meet the requirement of ensuring that developers are not launching costly services or running services unnecessarily. IAM policies can only control access to resources within a single AWS account. If developers have multiple accounts or can create new accounts, they can bypass the IAM policy restrictions. SCPs can apply across multiple accounts within an AWS Organization and prevent users from creating new accounts that do not comply with the SCP rules3
- Option E is incorrect because creating an AWS Budgets alert action to terminate services when the budgeted amount is reached is not possible. AWS Budgets alert actions can only perform one of the following actions: apply an IAM policy, apply an SCP, or send a notification through Amazon SNS. AWS Budgets alert actions cannot terminate services directly.
- Option F is correct because creating an AWS Budgets alert action to send an Amazon SNS notification when the budgeted amount is reached and invoking an AWS Lambda function to terminate all services meets the requirement of giving developers a fixed monthly budget to limit their AWS costs. AWS Budgets alert actions can send notifications through Amazon SNS when a budget threshold is breached. Amazon SNS can trigger an AWS Lambda function that can perform custom logic such as terminating all services in the developer's account. This way, developers cannot exceed their budget limit and incur additional costs.
References: 1: https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html 2
: https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/budgets-create.html 3: https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction.html : https://docs.aws.amazon.com/cost-management/latest/userguide/budgets-actions.html : https://docs.aws.amazon.com/sns/latest/dg/sns-lambda.html : https://docs.aws.amazon.com/lambda/latest/dg/welcome.html

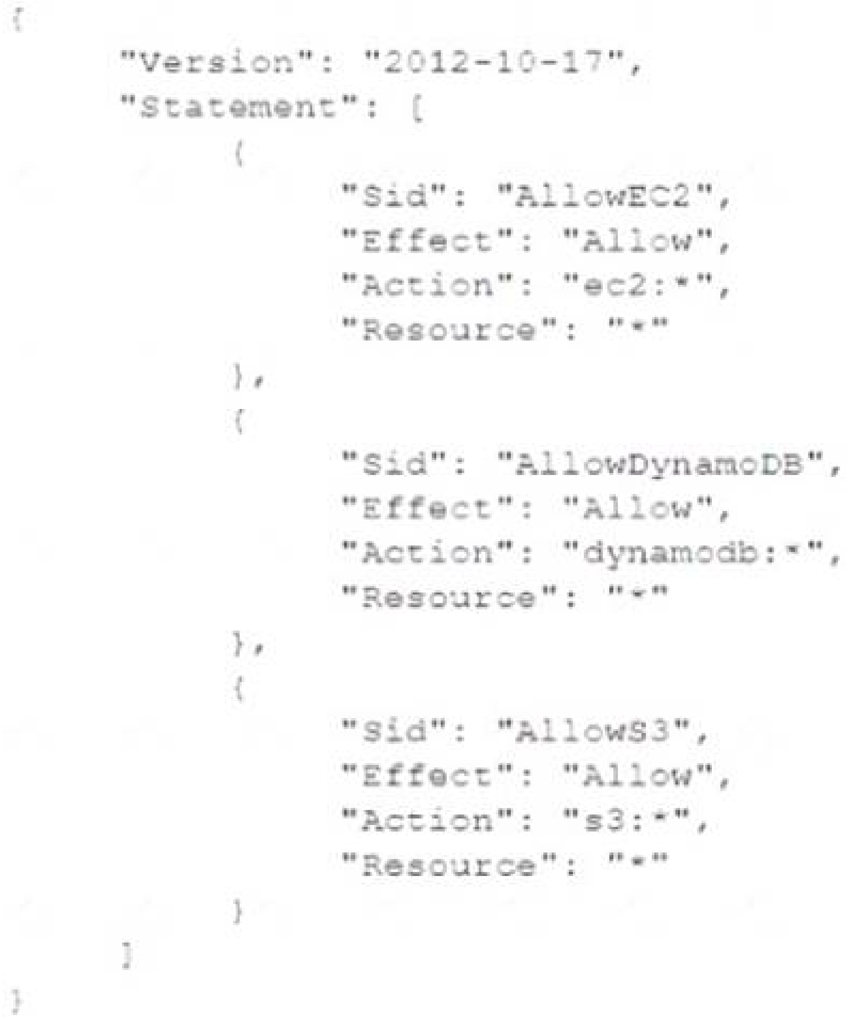
NEW QUESTION 56
- (Exam Topic 1)
A company runs a Java application that has complex dependencies on VMs that are in the company's data center. The application is stable. but the company wants to modernize the technology stack. The company wants to migrate the application to AWS and minimize the administrative overhead to maintain the servers.
Which solution will meet these requirements with the LEAST code changes?

A. Migrate the application to Amazon Elastic Container Service (Amazon ECS) on AWS Fargate by using AWS App2Containe
B. Store container images in Amazon Elastic Container Registry (Amazon ECR). Grant the ECS task execution role permission 10 access the ECR image repositor
C. Configure Amazon ECS to use an Application Load Balancer (ALB). Use the ALB to interact with the application.
D. Migrate the application code to a container that runs in AWS Lambd
E. Build an Amazon API Gateway REST API with Lambda integratio
F. Use API Gateway to interact with the application.
G. Migrate the application to Amazon Elastic Kubernetes Service (Amazon EKS) on EKS managed node groups by using AWS App2Containe
H. Store container images in Amazon Elastic Container Registry (Amazon ECR). Give the EKS nodes permission to access the ECR image repositor
I. Use Amazon API Gateway to interact with the application.
J. Migrate the application code to a container that runs in AWS Lambd
K. Configure Lambda to use an Application Load Balancer (ALB). Use the ALB to interact with the application.

Answer: A

Explanation:
According to the AWS documentation1, AWS App2Container (A2C) is a command line tool for migrating and modernizing Java and .NET web applications into container format. AWS A2C analyzes and builds an inventory of applications running in bare metal, virtual machines, Amazon Elastic Compute Cloud (EC2) instances, or in the cloud. You can use AWS A2C to generate container images for your applications and deploy them on Amazon ECS or Amazon EKS.
Option A meets the requirements of the scenario because it allows you to migrate your existing Java application to AWS and minimize the administrative overhead to maintain the servers. You can use AWS A2C to analyze your application dependencies, extract application artifacts, and generate a Dockerfile. You can then store your container images in Amazon ECR, which is a fully managed container registry service. You can use AWS Fargate as the launch type for your Amazon ECS cluster, which is a serverless compute engine that eliminates the need to provision and manage servers for your containers. You can grant the ECS task execution role permission to access the ECR image repository, which allows your tasks to pull images from ECR. You can configure Amazon ECS to use an ALB, which is a load balancer that distributes traffic across multiple targets in multiple Availability Zones using HTTP or HTTPS protocols. You can use the ALB to interact with your application.

NEW QUESTION 58
- (Exam Topic 1)
A company is in the process of implementing AWS Organizations to constrain its developers to use only Amazon EC2. Amazon S3 and Amazon DynamoDB. The developers account resides In a dedicated organizational unit (OU). The solutions architect has implemented the following SCP on the developers account:



```
{
      "Version": "2012-10-17",
      "Statement": [
            {
                  "Sid": "AllowEC2",
                  "Effect": "Allow",
                  "Action": "ec2:*",
                  "Resource": "*"
            },
            {
                  "Sid": "AllowDynamoDB",
                  "Effect": "Allow",
                  "Action": "dynamodb:*",
                  "Resource": "*"
            },
            {
                  "Sid": "AllowS3",
                  "Effect": "Allow",
                  "Action": "s3:*",
                  "Resource": "*"
            }
      ]
}
```

When this policy is deployed, IAM users in the developers account are still able to use AWS services that are not listed in the policy. What should the solutions architect do to eliminate the developers' ability to use services outside the scope of this policy?

A. Create an explicit deny statement for each AWS service that should be constrained
B. Remove the Full AWS Access SCP from the developer account's OU
C. Modify the Full AWS Access SCP to explicitly deny all services
D. Add an explicit deny statement using a wildcard to the end of the SCP

Answer: B

Explanation:
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_inheritance_auth.html

NEW QUESTION 61
- (Exam Topic 1)
A company recently acquired several other companies. Each company has a separate AWS account with a different billing and reporting method. The acquiring company has consolidated all the accounts into one organization in AWS Organizations. However, the acquiring company has found it difficult to generate a cost report that contains meaningful groups for all the teams.
The acquiring company's finance team needs a solution to report on costs for all the companies through a self-managed application.
Which solution will meet these requirements?

A. Create an AWS Cost and Usage Report for the organizatio
B. Define tags and cost categories in the repor
C. Create a table in Amazon Athen
D. Create an Amazon QuickSight dataset based on the Athena tabl
E. Share the dataset with the finance team.
F. Create an AWS Cost and Usage Report for the organizatio
G. Define tags and cost categories in the repor
H. Create a specialized template in AWS Cost Explorer that the finance department will use to build reports.
I. Create an Amazon QuickSight dataset that receives spending information from the AWS Price List Query AP
J. Share the dataset with the finance team.
K. Use the AWS Price List Query API to collect account spending informatio
L. Create a specialized template in AWS Cost Explorer that the finance department will use to build reports.

Answer: A

Explanation:
Creating an AWS Cost and Usage Report for the organization and defining tags and cost categories in the report will allow for detailed cost reporting for the different companies that have been consolidated into one organization. By creating a table in Amazon Athena and an Amazon QuickSight dataset based on the Athena table, the finance team will be able to easily query and generate reports on the costs for all the companies. The dataset can then be shared with the finance team for them to use for their reporting needs.

NEW QUESTION 64
- (Exam Topic 1)
A company is creating a sequel for a popular online game. A large number of users from all over the world will play the game within the first week after launch. Currently, the game consists of the following components deployed in a single AWS Region:
• Amazon S3 bucket that stores game assets
• Amazon DynamoDB table that stores player scores
A solutions architect needs to design a multi-Region solution that will reduce latency improve reliability, and require the least effort to implement
What should the solutions architect do to meet these requirements?

A. Create an Amazon CloudFront distribution to serve assets from the S3 bucket Configure S3Cross-Region Replication Create a new DynamoDB able in a new Region Use the new table as a replica target tor DynamoDB global tables.
B. Create an Amazon CloudFront distribution to serve assets from the S3 bucke
C. Configure S3Same-Region Replicatio
D. Create a new DynamoDB able m a new Regio
E. Configure asynchronous replication between the DynamoDB tables by using AWS Database Migration Service (AWS DMS) with change data capture (CDC)
F. Create another S3 bucket in a new Region and configure S3 Cross-Region Replication between the buckets Create an Amazon CloudFront distribution and configure origin failover with two origins accessing the S3 buckets in each Regio
G. Configure DynamoDB global tables by enabling Amazon DynamoDB Streams, and add a replica table in a new Region.
H. Create another S3 bucket in the same Region, and configure S3 Same-Region Replication between the buckets- Create an Amazon CloudFront distribution and configure origin failover with two origin accessing the S3 buckets Create a new DynamoDB table m a new Region Use the new table as a replica target for DynamoDB global tables.

Answer: C

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/dynamodb-global-table-stream-lambda/?nc1=h_ls

NEW QUESTION 66
- (Exam Topic 1)
A company hosts a Git repository in an on-premises data center. The company uses webhooks to invoke functionality that runs in the AWS Cloud. The company hosts the webhook logic on a set of Amazon EC2 instances in an Auto Scaling group that the company set as a target for an Application Load Balancer (ALB). The Git server calls the ALB for the configured webhooks. The company wants to move the solution to a serverless architecture.
Which solution will meet these requirements with the LEAST operational overhead?

A. For each webhook, create and configure an AWS Lambda function UR
B. Update the Git servers to call the individual Lambda function URLs.
C. Create an Amazon API Gateway HTTP AP
D. Implement each webhook logic in a separate AWS Lambda functio
E. Update the Git servers to call the API Gateway endpoint.
F. Deploy the webhook logic to AWS App Runne
G. Create an ALB, and set App Runner as the target.Update the Git servers to call the ALB endpoint.
H. Containerize the webhook logi
I. Create an Amazon Elastic Container Service (Amazon ECS) cluster, and run the webhook logic in AWS Fargat
J. Create an Amazon API Gateway REST API, and set Fargate as the targe
K. Update the Git servers to call the API Gateway endpoint.

Answer: B

Explanation:
https://aws.amazon.com/solutions/implementations/git-to-s3-using-webhooks/ https://medium.com/mindorks/building-webhook-is-easy-using-aws-lambda-and-api-gateway-56f5e5c3a596

NEW QUESTION 71
- (Exam Topic 1)
A company uses an on-premises data analytics platform. The system is highly available in a fully redundant configuration across 12 servers in the company's data center.
The system runs scheduled jobs, both hourly and daily, in addition to one-time requests from users. Scheduled jobs can take between 20 minutes and 2 hours to finish running and have tight SLAs. The scheduled jobs account for 65% of the system usage. User jobs typically finish running in less than 5 minutes and have no SLA. The user jobs account for 35% of system usage. During system failures, scheduled jobs must continue to meet SLAs. However, user jobs can be delayed.
A solutions architect needs to move the system to Amazon EC2 instances and adopt a consumption-based model to reduce costs with no long-term commitments. The solution must maintain high availability and must not affect the SLAs.
Which solution will meet these requirements MOST cost-effectively?

A. Split the 12 instances across two Availability Zones in the chosen AWS Regio
B. Run two instances in each Availability Zone as On-Demand Instances with Capacity Reservation
C. Run four instances in each Availability Zone as Spot Instances.
D. Split the 12 instances across three Availability Zones in the chosen AWS Regio
E. In one of the Availability Zones, run all four instances as On-Demand Instances with Capacity Reservation
F. Run the remaining instances as Spot Instances.
G. Split the 12 instances across three Availability Zones in the chosen AWS Regio
H. Run two instances in each Availability Zone as On-Demand Instances with a Savings Pla
I. Run two instances in each Availability Zone as Spot Instances.
J. Split the 12 instances across three Availability Zones in the chosen AWS Regio
K. Run three instances in each Availability Zone as On-Demand Instances with Capacity Reservation
L. Run one instance in each Availability Zone as a Spot Instance.

Answer: D

Explanation:
By splitting the 12 instances across three Availability Zones, the system can maintain high availability and availability of resources in case of a failure. Option D also uses a combination of On-Demand Instances with Capacity Reservations and Spot Instances, which allows for scheduled jobs to be run on the On-Demand instances with guaranteed capacity, while also taking advantage of the cost savings from Spot Instances for the user jobs which have lower SLA requirements.

NEW QUESTION 75
- (Exam Topic 1)
A financial services company in North America plans to release a new online web application to its customers on AWS . The company will launch the application in the us-east-1 Region on Amazon EC2 instances. The application must be highly available and must dynamically scale to meet user traffic. The company also wants to implement a disaster recovery environment for the application in the us-west-1 Region by using active-passive failover.
Which solution will meet these requirements?

A. Create a VPC in us-east-1 and a VPC in us-west-1 Configure VPC peering In the us-east-1 VP
B. create an Application Load Balancer (ALB) that extends across multiple Availability Zones in both VPCs Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in both VPCs Place the Auto Scaling group behind the ALB.
C. Create a VPC in us-east-1 and a VPC in us-west-1. In the us-east-1 VP
D. create an Application Load Balancer (ALB) that extends across multiple Availability Zones in that VP
E. Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in the us-east-1 VPC Place the Auto Scaling group behind the ALB Set up the same configuration in the us-west-1 VP
F. Create an Amazon Route 53 hosted zone Create separate records for each ALB Enable health checks to ensure high availability between Regions.
G. Create a VPC in us-east-1 and a VPC in us-west-1 In the us-east-1 VP
H. create an Application Load Balancer (ALB) that extends across multiple Availability Zones in that VPC Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in the us-east-1 VPC Place the Auto Scaling group behind the ALB Set up the same configuration in the us-west-1 VPC Create an Amazon Route 53 hosted zon
I. Create separate records for each ALB Enable health checks and configure a failover routing policy for each record.
J. Create a VPC in us-east-1 and a VPC in us-west-1 Configure VPC peering In the us-east-1 VP
K. create an Application Load Balancer (ALB) that extends across multiple Availability Zones in Create an Auto Scaling group that deploys the EC2 instances across the multiple Availability Zones in both VPCs Place the Auto Scaling group behind the ALB Create an Amazon Route 53 host.. Create a record for the ALB.

Answer: C

Explanation:
it's the one that handles failover while B (the one shown as the answer today) it almost the same but does not handle failover.

NEW QUESTION 80
- (Exam Topic 1)
A company has its cloud infrastructure on AWS A solutions architect needs to define the infrastructure as code. The infrastructure is currently deployed in one AWS Region. The company's business expansion plan includes deployments in multiple Regions across multiple AWS accounts
What should the solutions architect do to meet these requirements?

A. Use AWS CloudFormation templates Add IAM policies to control the various accounts Deploy the templates across the multiple Regions
B. Use AWS Organizations Deploy AWS CloudFormation templates from the management account Use AWS Control Tower to manage deployments across accounts
C. Use AWS Organizations and AWS CloudFormation StackSets Deploy a CloudFormation template from an account that has the necessary IAM permissions
D. Use nested stacks with AWS CloudFormation templates Change the Region by using nested stacks

Answer: C

Explanation:
https://aws.amazon.com/blogs/aws/new-use-aws-cloudformation-stacksets-for-multiple-accounts-in-an-aws-orga AWS Organizations allows the management of multiple AWS accounts as a single entity and AWS
CloudFormation StackSets allows creating, updating, and deleting stacks across multiple accounts and regions in an organization. This solution allows creating a single CloudFormation template that can be deployed across multiple accounts and regions, and also allows for the management of access and permissions for the different accounts through the use of IAM roles and policies in the management account.

NEW QUESTION 81
- (Exam Topic 1)
A solutions architect needs to copy data from an Amazon S3 bucket m an AWS account to a new S3 bucket in a new AWS account. The solutions architect must implement a solution that uses the AWS CLI.
Which combination of steps will successfully copy the data? (Choose three.)

A. Create a bucket policy to allow the source bucket to list its contents and to put objects and set object ACLs in the destination bucke
B. Attach the bucket policy to the destination bucket.
C. Create a bucket policy to allow a user In the destination account to list the source bucket's contents and read the source bucket's object
D. Attach the bucket policy to the source bucket.
E. Create an IAM policy in the source accoun
F. Configure the policy to allow a user In the source account to list contents and get objects In the source bucket, and to list contents, put objects, and set object ACLs in the destination bucke
G. Attach the policy to the user _
H. Create an IAM policy in the destination accoun
I. Configure the policy to allow a user In the destination account to list contents and get objects In the source bucket, and to list contents, put objects, and set objectACLs in the destination bucke
J. Attach the policy to the user.
K. Run the aws s3 sync command as a user in the source accoun
L. Specify' the source and destination buckets to copy the data.
M. Run the aws s3 sync command as a user in the destination accoun
N. Specify' the source and destination buckets to copy the data.

Answer: BDF

Explanation:
Step B is necessary so that the user in the destination account has the necessary permissions to access the source bucket and list its contents, read its objects. Step D is needed so that the user in the destination account has the necessary permissions to access the destination bucket and list contents, put objects, and set object ACLs Step F is necessary because the aws s3 sync command needs to be run using the IAM user credentials from the destination account, so that the objects will have the appropriate permissions for the user in the destination account once they are copied.

NEW QUESTION 82
- (Exam Topic 1)
A company is using Amazon OpenSearch Service to analyze data. The company loads data into an OpenSearch Service cluster with 10 data nodes from an Amazon S3 bucket that uses S3 Standard storage. The data resides in the cluster for 1 month for read-only analysis. After 1 month, the company deletes the index that contains the data from the cluster. For compliance purposes, the company must retain a copy of all input data.
The company is concerned about ongoing costs and asks a solutions architect to recommend a new solution. Which solution will meet these requirements MOST

cost-effectively?

A. Replace all the data nodes with UltraWarm nodes to handle the expected capacit
B. Transition the input data from S3 Standard to S3 Glacier Deep Archive when the company loads the data into the cluster.
C. Reduce the number of data nodes in the cluster to 2 Add UltraWarm nodes to handle the expected capacit
D. Configure the indexes to transition to UltraWarm when OpenSearch Service ingests the dat
E. Transition the input data to S3 Glacier Deep Archive after 1 month by using an S3 Lifecycle policy.
F. Reduce the number of data nodes in the cluster to 2. Add UltraWarm nodes to handle the expected capacit
G. Configure the indexes to transition to UltraWarm when OpenSearch Service ingests the dat
H. Add cold storage nodes to the cluster Transition the indexes from UltraWarm to cold storag
I. Delete the input data from the S3 bucket after 1 month by using an S3 Lifecycle policy.
J. Reduce the number of data nodes in the cluster to 2. Add instance-backed data nodes to handle the expected capacit
K. Transition the input data from S3 Standard to S3 Glacier Deep Archive when the company loads the data into the cluster.

Answer: B

Explanation:
By reducing the number of data nodes in the cluster to 2 and adding UltraWarm nodes to handle the expected capacity, the company can reduce the cost of running the cluster. Additionally, configuring the indexes to transition to UltraWarm when OpenSearch Service ingests the data will ensure that the data is stored in the most cost-effective manner. Finally, transitioning the input data to S3 Glacier Deep Archive after 1 month by using an S3 Lifecycle policy will ensure that the data is retained for compliance purposes, while also reducing the ongoing costs.

NEW QUESTION 83
- (Exam Topic 1)
An AWS customer has a web application that runs on premises. The web application fetches data from a third-party API that is behind a firewall. The third party accepts only one public CIDR block in each client's allow list.
The customer wants to migrate their web application to the AWS Cloud. The application will be hosted on a set of Amazon EC2 instances behind an Application Load Balancer (ALB) in a VPC. The ALB is located in public subnets. The EC2 instances are located in private subnets. NAT gateways provide internet access to the private subnets.
How should a solutions architect ensure that the web application can continue to call the third-parly API after the migration?

A. Associate a block of customer-owned public IP addresses to the VP
B. Enable public IP addressing for public subnets in the VPC.
C. Register a block of customer-owned public IP addresses in the AWS accoun
D. Create Elastic IP addresses from the address block and assign them lo the NAT gateways in the VPC.
E. Create Elastic IP addresses from the block of customer-owned IP addresse
F. Assign the static Elastic IP addresses to the ALB.
G. Register a block of customer-owned public IP addresses in the AWS accoun
H. Set up AWS Global Accelerator to use Elastic IP addresses from the address bloc
I. Set the ALB as the accelerator endpoint.

Answer: B

Explanation:
When EC2 instances reach third-party API through internet, their privates IP addresses will be masked by NAT Gateway public IP address.
https://aws.amazon.com/blogs/networking-and-content-delivery/introducing-bring-your-own-ip-byoip-for-amaz

NEW QUESTION 87
- (Exam Topic 1)
A company uses a service to collect metadata from applications that the company hosts on premises. Consumer devices such as TVs and internet radios access the applications. Many older devices do not support certain HTTP headers and exhibit errors when these headers are present in responses. The company has configured an on-premises load balancer to remove the unsupported headers from responses sent to older devices, which the company identified by the User-Agent headers.
The company wants to migrate the service to AWS, adopt serverless technologies, and retain the ability to support the older devices. The company has already migrated the applications into a set of AWS Lambda functions.
Which solution will meet these requirements?

A. Create an Amazon CloudFront distribution for the metadata servic
B. Create an Application Load Balancer (ALB). Configure the CloudFront distribution to forward requests to the AL
C. Configure the ALB to invoke the correct Lambda function for each type of reques
D. Create a CloudFront function to remove the problematic headers based on the value of the User-Agent header.
E. Create an Amazon API Gateway REST API for the metadata servic
F. Configure API Gateway to invoke the correct Lambda function for each type of reques
G. Modify the default gateway responses to remove the problematic headers based on the value of the User-Agent header.
H. Create an Amazon API Gateway HTTP API for the metadata servic
I. Configure API Gateway to invoke the correct Lambda function for each type of reques
J. Create a response mapping template to remove the problematic headers based on the value of the User-Agen
K. Associate the response data mapping with the HTTP API.
L. Create an Amazon CloudFront distribution for the metadata servic
M. Create an Application Load Balancer (ALB). Configure the CloudFront distribution to forward requests to the AL
N. Configure the ALB to invoke the correct Lambda function for each type of reques
O. Create a Lambda@Edge function that will remove the problematic headers in response to viewer requests based on the value of theUser-Agent header.

Answer: D

Explanation:
https://docs.aws.amazon.com/AmazonCloudFront/latest/DeveloperGuide/lambda-examples.html

NEW QUESTION 88
- (Exam Topic 1)

A company is processing videos in the AWS Cloud by using Amazon EC2 instances in an Auto Scaling group. It takes 30 minutes to process a video. Several EC2 instances scale in and out depending on the number of videos in an Amazon Simple Queue Service (Amazon SQS) queue.
The company has configured the SQS queue with a redrive policy that specifies a target dead-letter queue and a maxReceiveCount of 1. The company has set the visibility timeout for the SQS queue to 1 hour. The company has set up an Amazon CloudWatch alarm to notify the development team when there are messages in the dead-letter queue.
Several times during the day, the development team receives notification that messages are in the dead-letter queue and that videos have not been processed properly. An investigation finds no errors in the application logs.
How can the company solve this problem?

A. Turn on termination protection for the EC2 instances.
B. Update the visibility timeout for the SOS queue to 3 hours.
C. Configure scale-in protection for the instances during processing.
D. Update the redrive policy and set maxReceiveCount to 0.

Answer: B

Explanation:
The best solution for this problem is to update the visibility timeout for the SQS queue to 3 hours. This is because when the visibility timeout is set to 1 hour, it means that if the EC2 instance doesn't process the message within an hour, it will be moved to the dead-letter queue. By increasing the visibility timeout to 3 hours, this should give the EC2 instance enough time to process the message before it gets moved to the dead-letter queue. Additionally, configuring scale-in protection for the EC2 instances during processing will help to ensure that the instances are not terminated while the messages are being processed.

NEW QUESTION 91
- (Exam Topic 1)
A company is planning to migrate 1,000 on-premises servers to AWS. The servers run on several VMware clusters in the company’s data center. As part of the migration plan, the company wants to gather server metrics such as CPU details, RAM usage, operating system information, and running processes. The company then wants to query and analyze the data.
Which solution will meet these requirements?

A. Deploy and configure the AWS Agentless Discovery Connector virtual appliance on the on-premises host
B. Configure Data Exploration in AWS Migration Hu
C. Use AWS Glue to perform an ETL job against the dat
D. Query the data by using Amazon S3 Select.
E. Export only the VM performance information from the on-premises host
F. Directly import the required data into AWS Migration Hu
G. Update any missing information in Migration Hu
H. Query the data by using Amazon QuickSight.
I. Create a script to automatically gather the server information from the on-premises host
J. Use the AWS CLI to run the put-resource-attributes command to store the detailed server data in AWS Migration Hu
K. Query the data directly in the Migration Hub console.
L. Deploy the AWS Application Discovery Agent to each on-premises serve
M. Configure Data Exploration in AWS Migration Hu
N. Use Amazon Athena to run predefined queries against the data in Amazon S3.

Answer: D

Explanation:
it covers all the requirements mentioned in the question, it will allow collecting the detailed metrics, including process information and it provides a way to query and analyze the data using Amazon Athena.

NEW QUESTION 94
- (Exam Topic 1)
A company is planning to host a web application on AWS and works to load balance the traffic across a group of Amazon EC2 instances. One of the security requirements is to enable end-to-end encryption in transit between the client and the web server.
Which solution will meet this requirement?

A. Place the EC2 instances behind an Application Load Balancer (ALB) Provision an SSL certificate using AWS Certificate Manager (ACM), and associate the SSL certificate with the AL
B. Export the SSL certificate and install it on each EC2 instanc
C. Configure the ALB to listen on port 443 and to forward traffic to port 443 on the instances.
D. Associate the EC2 instances with a target grou
E. Provision an SSL certificate using AWS Certificate Manager (ACM). Create an Amazon CloudFront distribution and configure It to use the SSL certificat
F. Set CloudFront to use the target group as the origin server
G. Place the EC2 instances behind an Application Load Balancer (ALB). Provision an SSL certificate using AWS Certificate Manager (ACM), and associate the SSL certificate with the AL
H. Provision athird-party SSL certificate and install it on each EC2 instanc
I. Configure the ALB to listen on port 443 and to forward traffic to port 443 on the instances.
J. Place the EC2 instances behind a Network Load Balancer (NLB). Provision a third-party SSL certificate and install it on the NLB and on each EC2 instanc
K. Configure the NLB to listen on port 443 and to forward traffic to port 443 on the instances.

Answer: A

Explanation:
Option A is correct because placing the EC2 instances behind an Application Load Balancer (ALB) and associating an SSL certificate from AWS Certificate Manager (ACM) with the ALB enables encryption in transit between the client and the ALB. Exporting the SSL certificate and installing it on each EC2 instance enables encryption in transit between the ALB and the web server. Configuring the ALB to listen on port 443 and to forward traffic to port 443 on the instances ensures that HTTPS is used for both connections. This solution achieves end-to-end encryption in transit for the web applicatio1n2
References: 1: https://docs.aws.amazon.com/elasticloadbalancing/latest/application/introduction.html 2: https://docs.aws.amazon.com/acm/latest/userguide/acm-overview.html 3: https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-target-groups.html : https://aws.amazon.com/certificate-manager/faqs/ : https://docs.aws.amazon.com/elasticloadbalancing/latest/network/introduction.html

NEW QUESTION 99
- (Exam Topic 1)
A large company is running a popular web application. The application runs on several Amazon EC2 Linux Instances in an Auto Scaling group in a private subnet. An Application Load Balancer is targeting the Instances In the Auto Scaling group in the private subnet. AWS Systems Manager Session Manager Is configured, and AWS Systems Manager Agent is running on all the EC2 instances.
The company recently released a new version of the application Some EC2 instances are now being marked as unhealthy and are being terminated As a result, the application is running at reduced capacity A solutions architect tries to determine the root cause by analyzing Amazon CloudWatch logs that are collected from the application, but the logs are inconclusive
How should the solutions architect gain access to an EC2 instance to troubleshoot the issue1?

A. Suspend the Auto Scaling group's HealthCheck scaling proces
B. Use Session Manager to log in to an instance that is marked as unhealthy
C. Enable EC2 instance termination protection Use Session Manager to log In to an instance that is marked as unhealthy.
D. Set the termination policy to Oldestinstance on the Auto Scaling grou
E. Use Session Manager to log in to an instance that is marked as unhealthy
F. Suspend the Auto Scaling group's Terminate proces
G. Use Session Manager to log in to an instance thatis marked as unhealthy

Answer: D

Explanation:
https://docs.aws.amazon.com/autoscaling/ec2/userguide/as-suspend-resume-processes.html

NEW QUESTION 104
- (Exam Topic 1)
A company has an asynchronous HTTP application that is hosted as an AWS Lambda function. A public Amazon API Gateway endpoint invokes the Lambda function. The Lambda function and the API Gateway endpoint reside in the us-east-1 Region. A solutions architect needs to redesign the application to support failover to another AWS Region.
Which solution will meet these requirements?

A. Create an API Gateway endpoint in the us-west-2 Region to direct traffic to the Lambda function in us-east-1. Configure Amazon Route 53 to use a failover routing policy to route traffic for the two API Gateway endpoints.
B. Create an Amazon Simple Queue Service (Amazon SQS) queu
C. Configure API Gateway to direct traffic to the SQS queue instead of to the Lambda functio
D. Configure the Lambda function to pull messages from the queue for processing.
E. Deploy the Lambda function to the us-west-2 Regio
F. Create an API Gateway endpoint in us-west-2 to direct traffic to the Lambda function in us-west-2. Configure AWS Global Accelerator and an Application Load Balancer to manage traffic across the two API Gateway endpoints.
G. Deploy the Lambda function and an API Gateway endpoint to the us-west-2 Regio
H. Configure Amazon Route 53 to use a failover routing policy to route traffic for the two API Gateway endpoints.

Answer: B

Explanation:
This solution allows for deploying the Lambda function and API Gateway endpoint to another region, providing a failover option in case of any issues in the primary region. Using Route 53's failover routing policy allows for automatic routing of traffic to the healthy endpoint, ensuring that the application is available even in case of issues in one region. This solution provides a cost-effective and simple way to implement failover while minimizing operational overhead.

NEW QUESTION 106
- (Exam Topic 1)
A company needs to implement a patching process for its servers. The on-premises servers and Amazon EC2 instances use a variety of tools to perform patching. Management requires a single report showing the patch status of all the servers and instances.
Which set of actions should a solutions architect take to meet these requirements?

A. Use AWS Systems Manager to manage patches on the on-premises servers and EC2 instance
B. Use Systems Manager to generate patch compliance reports.
C. Use AWS OpsWorks to manage patches on the on-premises servers and EC2 instance
D. Use Amazon OuickSight integration with OpsWorks to generate patch compliance reports.
E. Use an Amazon EventBridge (Amazon CloudWatch Events) rule to apply patches by scheduling an AWS Systems Manager patch remediation jo
F. Use Amazon Inspector to generate patch compliance reports.
G. Use AWS OpsWorks to manage patches on the on-premises servers and EC2 instance
H. Use AWS X-Ray to post the patch status to AWS Systems Manager OpsCenter to generate patch compliance reports.

Answer: A

Explanation:
https://docs.aws.amazon.com/systems-manager/latest/userguide/systems-manager-patch.html

NEW QUESTION 110
- (Exam Topic 1)
A company is planning to store a large number of archived documents and make the documents available to employees through the corporate intranet. Employees will access the system by connecting through a client VPN service that is attached to a VPC. The data must not be accessible to the public.
The documents that the company is storing are copies of data that is held on physical media elsewhere. The number of requests will be low. Availability and speed of retrieval are not concerns of the company.
Which solution will meet these requirements at the LOWEST cost?

A. Create an Amazon S3 bucke
B. Configure the S3 bucket to use the S3 One Zone-Infrequent Access (S3 One Zone-IA) storage class as defaul
C. Configure the S3 bucket for website hostin

D. Create an S3 interface endpoin
E. Configure the S3 bucket to allow access only through that endpoint.
F. Launch an Amazon EC2 instance that runs a web serve
G. Attach an Amazon Elastic File System (Amazon EFS) file system to store the archived data in the EFS One Zone-Infrequent Access (EFS One Zone-IA) storage class Configure the instance security groups to allow access only from private networks.
H. Launch an Amazon EC2 instance that runs a web server Attach an Amazon Elastic Block Store (Amazon EBS) volume to store the archived dat
I. Use the Cold HDD (sc1) volume typ
J. Configure the instance security groups to allow access only from private networks.
K. Create an Amazon S3 bucke
L. Configure the S3 bucket to use the S3 Glacier Deep Archive storage class as defaul
M. Configure the S3 bucket for website hostin
N. Create an S3 interface endpoin
O. Configure the S3 bucket to allow access only through that endpoint.

Answer: D

Explanation:
The S3 Glacier Deep Archive storage class is the lowest-cost storage class offered by Amazon S3, and it is designed for archival data that is accessed infrequently and for which retrieval time of several hours is acceptable. S3 interface endpoint for the VPC ensures that access to the bucket is only from resources within the VPC and this will meet the requirement of not being accessible to the public. And also, S3 bucket can be configured for website hosting, and this will allow employees to access the documents through the corporate intranet. Using an EC2 instance and a file system or block store would be more expensive and unnecessary because the number of requests to the data will be low and availability and speed of retrieval are not concerns. Additionally, using Amazon S3 bucket will provide durability, scalability and availability of data.

NEW QUESTION 112
- (Exam Topic 1)
A company is building a serverless application that runs on an AWS Lambda function that is attached to a VPC. The company needs to integrate the application with a new service from an external provider. The external provider supports only requests that come from public IPv4 addresses that are in an allow list.
The company must provide a single public IP address to the external provider before the application can start using the new service.
Which solution will give the application the ability to access the new service?

A. Deploy a NAT gatewa
B. Associate an Elastic IP address with the NAT gatewa
C. Configure the VPC to use the NAT gateway.
D. Deploy an egress-only internet gatewa
E. Associate an Elastic IP address with the egress-only internet gatewa
F. Configure the elastic network interface on the Lambda function to use the egress-only internet gateway.
G. Deploy an internet gatewa
H. Associate an Elastic IP address with the internet gatewa
I. Configure theLambda function to use the internet gateway.
J. Deploy an internet gatewa
K. Associate an Elastic IP address with the internet gatewa
L. Configure the default route in the public VPC route table to use the internet gateway.

Answer: A

Explanation:
This solution will give the Lambda function access to the internet by routing its outbound traffic through the NAT gateway, which has a public Elastic IP address. This will allow the external provider to whitelist the single public IP address associated with the NAT gateway, and enable the application to access the new service Deploying a NAT gateway and associating an Elastic IP address with it, and then configuring the VPC to use the NAT gateway, will give the application the ability to access the new service. This is because the NAT gateway will be the single public IP address that the external provider needs for the allow list. The NAT gateway will allow the application to access the service, while keeping the underlying Lambda functions private.
When configuring NAT gateways, you should ensure that the route table associated with the NAT gateway has a route to the internet gateway with a target of the internet gateway. Additionally, you should ensure that the security group associated with the NAT gateway allows outbound traffic from the Lambda functions.
References:
> AWS Certified Solutions Architect Professional Official Amazon Text Book [1], page 456
https://docs.aws.amazon.com/vpc/latest/userguide/VPC_NAT_Gateway.html

NEW QUESTION 115
- (Exam Topic 1)
A team collects and routes behavioral data for an entire company The company runs a Multi-AZ VPC
environment with public subnets, private subnets, and in internet gateway Each public subnet also contains a NAT gateway Most of the company's applications read from and write to Amazon Kinesis Data Streams. Most of the workloads am in private subnets.
A solutions architect must review the infrastructure The solutions architect needs to reduce costs and maintain the function of the applications The solutions architect uses Cost Explorer and notices that the cost in the EC2-Other category is consistently high A further review shows that NatGateway-Bytes charges are increasing the cost in the EC2-Other category.
What should the solutions architect do to meet these requirements?

A. Enable VPC Flow Log
B. Use Amazon Athena to analyze the logs for traffic that can be remove
C. Ensure that security groups are Mocking traffic that is responsible for high costs.
D. Add an interface VPC endpoint for Kinesis Data Streams to the VP
E. Ensure that applications have the correct IAM permissions to use the interface VPC endpoint.
F. Enable VPC Flow Logs and Amazon Detective Review Detective findings for traffic that is not related to Kinesis Data Streams Configure security groups to block that traffic
G. Add an interface VPC endpoint for Kinesis Data Streams to the VP
H. Ensure that the VPC endpoint policy allows traffic from the applications.

Answer: D

Explanation:
https://docs.aws.amazon.com/vpc/latest/privatelink/vpc-endpoints-access.html https://aws.amazon.com/premiumsupport/knowledge-center/vpc-reduce-nat-gateway-transfer-costs/
VPC endpoint policies enable you to control access by either attaching a policy to a VPC endpoint or by using additional fields in a policy that is attached to an IAM user, group, or role to restrict access to only occur via the specified VPC endpoint

NEW QUESTION 119
- (Exam Topic 1)
A company has an environment that has a single AWS account. A solutions architect is reviewing the environment to recommend what the company could improve specifically in terms of access to the AWS Management Console. The company's IT support workers currently access the console for administrative tasks, authenticating with named IAM users that have been mapped to their job role.
The IT support workers no longer want to maintain both their Active Directory and IAM user accounts. They want to be able to access the console by using their existing Active Directory credentials. The solutions architect is using AWS Single Sign-On (AWS SSO) to implement this functionality.
Which solution will meet these requirements MOST cost-effectively?

A. Create an organization in AWS Organization
B. Turn on the AWS SSO feature in Organizations Create and configure a directory in AWS Directory Service for Microsoft Active Directory (AWS Managed Microsoft AD) with a two-way trust to the company's on-premises Active Director
C. Configure AWS SSO and set the AWS Managed Microsoft AD directory as the identity sourc
D. Create permission sets and map them to the existing groups within the AWS Managed Microsoft AD directory.
E. Create an organization in AWS Organization
F. Turn on the AWS SSO feature in Organizations Create and configure an AD Connector to connect to the company's on-premises Active Director
G. Configure AWS SSO and select the AD Connector as the identity sourc
H. Create permission sets and map them to the existing groups within the company's Active Directory.
I. Create an organization in AWS Organization
J. Turn on all features for the organizatio
K. Create and configure a directory in AWS Directory Service for Microsoft Active Directory (AWS Managed Microsoft AD) with a two-way trust to the company's on-premises Active Director
L. Configure AWS SSO and select the AWS Managed Microsoft AD directory as the identity sourc
M. Create permission sets and map them to the existing groups within the AWS Managed Microsoft AD directory.
N. Create an organization in AWS Organization
O. Turn on all features for the organizatio
P. Create and configure an AD Connector to connect to the company's on-premises Active Director
Q. Configure AWS SSO and select the AD Connector as the identity sourc
R. Create permission sets and map them to the existing groups within the company's Active Directory.

Answer: D

Explanation:
https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_org_support-all-features.html
https://docs.aws.amazon.com/singlesignon/latest/userguide/get-started-prereqs-considerations.html

NEW QUESTION 120
- (Exam Topic 1)
A company is storing data on premises on a Windows file server. The company produces 5 GB of new data daily.
The company migrated part of its Windows-based workload to AWS and needs the data to be available on a file system in the cloud. The company already has established an AWS Direct Connect connection between the on-premises network and AWS.
Which data migration strategy should the company use?

A. Use the file gateway option in AWS Storage Gateway to replace the existing Windows file server, and point the existing file share to the new file gateway.
B. Use AWS DataSync to schedule a daily task to replicate data between the on-premises Windows file server and Amazon FSx.
C. Use AWS Data Pipeline to schedule a daily task to replicate data between the on-premises Windows file server and Amazon Elastic File System (Amazon EFS).
D. Use AWS DataSync to schedule a daily task lo replicate data between the on-premises Windows file server and Amazon Elastic File System (Amazon EFS),

Answer: B

Explanation:
https://aws.amazon.com/storagegateway/file/
https://docs.aws.amazon.com/fsx/latest/WindowsGuide/migrate-files-to-fsx-datasync.html https://docs.aws.amazon.com/systems-manager/latest/userguide/prereqs-operating-systems.html#prereqs-os-win

NEW QUESTION 122
- (Exam Topic 1)
A solutions architect must analyze a company's Amazon EC2 Instances and Amazon Elastic Block Store (Amazon EBS) volumes to determine whether the company is using resources efficiently The company is running several large, high-memory EC2 instances lo host database dusters that are deployed in active/passive configurations The utilization of these EC2 instances varies by the applications that use the databases, and the company has not identified a pattern The solutions architect must analyze the environment and take action based on the findings. Which solution meets these requirements MOST cost-effectively?

A. Create a dashboard by using AWS Systems Manager OpsConter Configure visualizations tor Amazon CloudWatch metrics that are associated with the EC2 instances and their EBS volumes Review thedashboard periodically and identify usage patterns Right size the EC2 instances based on the peaks in the metrics
B. Turn on Amazon CloudWatch detailed monitoring for the EC2 instances and their EBS volumes Create and review a dashboard that is based on the metrics Identify usage patterns Right size the FC? instances based on the peaks In the metrics
C. Install the Amazon CloudWatch agent on each of the EC2 Instances Turn on AWS Compute Optimizer, and let it run for at least 12 hours Review the recommendations from Compute Optimizer, and right size the EC2 instances as directed
D. Sign up for the AWS Enterprise Support plan Turn on AWS Trusted Advisor Wait 12 hours Review the recommendations from Trusted Advisor, and rightsize the EC2 instances as directed

Answer: C

Explanation:
(https://aws.amazon.com/compute-optimizer/pricing/ , https://aws.amazon.com/systems-manager/pricing/). https://aws.amazon.com/compute-optimizer/

NEW QUESTION 125
- (Exam Topic 1)
A company has its cloud infrastructure on AWS A solutions architect needs to define the infrastructure as code. The infrastructure is currently deployed in one AWS Region. The company's business expansion plan includes deployments in multiple Regions across multiple AWS accounts
What should the solutions architect do to meet these requirements?

A. Use AWS CloudFormation templates Add IAM policies to control the various accounts Deploy the templates across the multiple Regions
B. Use AWS Organizations Deploy AWS CloudFormation templates from the management account Use AWS Control Tower to manage deployments across accounts
C. Use AWS Organizations and AWS CloudFormation StackSets Deploy a CloudFormation template from an account that has the necessary IAM permissions
D. Use nested stacks with AWS CloudFormation templates Change the Region by using nested stacks

Answer: C

Explanation:
https://aws.amazon.com/blogs/aws/new-use-aws-cloudformation-stacksets-for-multiple-accounts-in-an-aws-orga AWS Organizations allows the management of multiple AWS accounts as a single entity and AWS
CloudFormation StackSets allows creating, updating, and deleting stacks across multiple accounts and regions in an organization. This solution allows creating a single CloudFormation template that can be deployed across multiple accounts and regions, and also allows for the management of access and permissions for the different accounts through the use of IAM roles and policies in the management account.

NEW QUESTION 130
- (Exam Topic 1)
A retail company has structured its AWS accounts to be part of an organization in AWS Organizations. The company has set up consolidated billing and has mapped its departments to the following OUs: Finance. Sales. Human Resources <HR). Marketing, and Operations. Each OU has multiple AWS accounts, one for each environment within a department. These environments are development, test, pre-production, and production.
The HR department is releasing a new system thai will launch in 3 months. In preparation, the HR department has purchased several Reserved Instances (RIs) in its production AWS account. The HR department will install the new application on this account. The HR department wants to make sure that other departments cannot share the Rl discounts.
Which solution will meet these requirements?

A. In the AWS Billing and Cost Management console for the HR department's production account, turn off R1 sharing.
B. Remove the HR department's production AWS account from the organizatio
C. Add the account to the consolidating billing configuration only.
D. In the AWS Billing and Cost Management console, use the organization's management account to turn off R1 sharing for the HR department's production AWS account.
E. Create an SCP in the organization to restrict access to the RI
F. Apply the SCP to the OUs of the other departments.

Answer: C

Explanation:
You can use the management account of the organization in AWS Billing and Cost Management console to turn off RI sharing for the HR department's production AWS account. This will prevent other departments from sharing the RI discounts and ensure that only the HR department can use the RIs purchased in their production account.

NEW QUESTION 131
- (Exam Topic 1)
A company has an organization that has many AWS accounts in AWS Organizations. A solutions architect must improve how the company manages common security group rules for the AWS accounts in the organization.
The company has a common set of IP CIDR ranges in an allow list in each AWS account to allow access to
and from the company's on-premises network.
Developers within each account are responsible for adding new IP CIDR ranges to their security groups. The security team has its own AWS account. Currently, the security team notifies the owners of the other AWS accounts when changes are made to the allow list.
The solutions architect must design a solution that distributes the common set of CIDR ranges across all accounts.
Which solution meets these requirements with the LEAST amount of operational overhead?

A. Set up an Amazon Simple Notification Service (Amazon SNS) topic in the security team's AWS accoun
B. Deploy an AWS Lambda function in each AWS accoun
C. Configure the Lambda function to run every time an SNS topic receives a messag
D. Configure the Lambda function to take an IP address as input and add it to a list of security groups in the accoun
E. Instruct the security team to distribute changes by publishing messages to its SNS topic.
F. Create new customer-managed prefix lists in each AWS account within the organizatio
G. Populate the prefix lists in each account with all internal CIDR range
H. Notify the owner of each AWS account to allow the new customer-managed prefix list IDs in their accounts in their security group
I. Instruct the security team to share updates with each AWS account owner.
J. Create a new customer-managed prefix list in the security team's AWS accoun
K. Populate the customer-managed prefix list with all internal CIDR range
L. Share the customer-managed prefix listwith the organization by using AWS Resource Access Manage
M. Notify the owner of each AWS account to allow the new customer-managed prefix list ID in their security groups.
N. Create an IAM role in each account in the organizatio
O. Grant permissions to update security groups.Deploy an AWS Lambda function in the security team's AWS accoun
P. Configure the Lambda function to take a list of internal IP addresses as input, assume a role in each organization account, and add the list of IP addresses to the security groups in each account.

Answer: C

Explanation:
Create a new customer-managed prefix list in the security team's AWS account. Populate the
customer-managed prefix list with all internal CIDR ranges. Share the customer-managed prefix list with the organization by using AWS Resource Access Manager. Notify the owner of each AWS account to allow the new customer-managed prefix list ID in their security groups. This solution meets the requirements with the least amount of operational overhead as it requires the security team to create and maintain a single customer-managed prefix list, and share it with the organization using AWS Resource Access Manager. The owners of each AWS account are then responsible for allowing the prefix list in their security groups, which eliminates the need for the security team to manually notify each account owner when changes are made. This solution also eliminates the need for a separate AWS Lambda function in each account, reducing the overall complexity of the solution.

NEW QUESTION 135
- (Exam Topic 1)
A company is running an application in the AWS Cloud. Recent application metrics show inconsistent
response times and a significant increase in error rates. Calls to third-party services are causing the delays. Currently, the application calls third-party services synchronously by directly invoking an AWS Lambda function.
A solutions architect needs to decouple the third-party service calls and ensure that all the calls are eventually completed.
Which solution will meet these requirements?

A. Use an Amazon Simple Queue Service (Amazon SQS) queue to store events and invoke the Lambda function.
B. Use an AWS Step Functions state machine to pass events to the Lambda function.
C. Use an Amazon EventBridge rule to pass events to the Lambda function.
D. Use an Amazon Simple Notification Service (Amazon SNS) topic to store events and Invoke the Lambda function.

Answer: A

Explanation:
Using an SQS queue to store events and invoke the Lambda function will decouple the third-party service calls and ensure that all the calls are eventually completed. SQS allows you to store messages in a queue and process them asynchronously, which eliminates the need for the application to wait for a response from the third-party service. The messages will be stored in the SQS queue until they are processed by the Lambda function, even if the Lambda function is currently unavailable or busy. This will ensure that all the calls are eventually completed, even if there are delays or errors.
AWS Step Functions state machines can also be used to pass events to the Lambda function, but it would require additional management and configuration to set up the state machine, which would increase operational overhead.
Amazon EventBridge rule can also be used to pass events to the Lambda function, but it would not provide the same level of decoupling and reliability as SQS.
Using Amazon Simple Notification Service (Amazon SNS) topic to store events and Invoke the Lambda function, is similar to SQS, but SNS is a publish-subscribe messaging service and SQS is a queue service. SNS is used for sending messages to multiple recipients, SQS is used for sending messages to a single recipient, so SQS is more appropriate for this use case.
References:

- AWS SQS
- AWS Step Functions
- AWS EventBridge
- AWS SNS

NEW QUESTION 137
- (Exam Topic 1)
A solutions architect is investigating an issue in which a company cannot establish new sessions in Amazon Workspaces. An initial analysis indicates that the issue involves user profiles. The Amazon Workspaces environment is configured to use Amazon FSx for Windows File Server as the profile share storage. The FSx for Windows File Server file system is configured with 10 TB of storage.
The solutions architect discovers that the file system has reached its maximum capacity. The solutions architect must ensure that users can regain access. The solution also must prevent the problem from occurring again.
Which solution will meet these requirements?

A. Remove old user profiles to create spac
B. Migrate the user profiles to an Amazon FSx for Lustre file system.
C. Increase capacity by using the update-file-system comman
D. Implement an Amazon CloudWatch metric that monitors free spac
E. Use Amazon EventBridge to invoke an AWS Lambda function to increase capacity as required.
F. Monitor the file system by using the FreeStorageCapacity metric in Amazon CloudWatc
G. Use AWS Step Functions to increase the capacity as required.
H. Remove old user profiles to create spac
I. Create an additional FSx for Windows File Server file system.Update the user profile redirection for 50% of the users to use the new file system.

Answer: B

Explanation:

- It can prevent the issue from happening again by monitoring the file system with the FreeStorageCapacity metric in Amazon CloudWatch and using Amazon EventBridge to invoke an AWS Lambda function to increase the capacity as required. This ensures that the file system always has enough free space to store user profiles and avoids reaching maximum capacity.

NEW QUESTION 138
- (Exam Topic 2)
A company's solutions architect is analyzing costs of a multi-application environment. The environment is deployed across multiple Availability Zones in a single AWS Region. After a recent acquisition, the company manages two organizations in AWS Organizations. The company has created multiple service provider applications as AWS PrivateLink-powered VPC endpoint services in one organization. The company has created multiple service consumer applications in the other organization.
Data transfer charges are much higher than the company expected, and the solutions architect needs to reduce the costs. The solutions architect must recommend guidelines for developers to follow when they deploy services. These guidelines must minimize data transfer charges for the whole environment.
Which guidelines meet these requirements? (Select TWO.)

A. Use AWS Resource Access Manager to share the subnets that host the service provider applications with other accounts in the organization.

B. Place the service provider applications and the service consumer applications in AWS accounts in the same organization.
C. Turn off cross-zone load balancing for the Network Load Balancer in all service provider application deployments.
D. Ensure that service consumer compute resources use the Availability Zone-specific endpoint service by using the endpoint's local DNS name.
E. Create a Savings Plan that provides adequate coverage for the organization's planned inter-Availability Zone data transfer usage.

Answer: CD

Explanation:
Cross-zone load balancing enables traffic to be distributed evenly across all registered instances in all enabled Availability Zones. However, this also increases data transfer charges between Availability Zones. By turning off cross-zone load balancing, the service provider applications can reduce inter-Availability Zone data transfer costs. Similarly, by using the Availability Zone-specific endpoint service, the service consumer applications can ensure that they connect to the nearest service provider application in the same Availability Zone, avoiding cross-Availability Zone data transfer charges. References:

- https://docs.aws.amazon.com/vpc/latest/userguide/vpce-interface.html#vpce-interface-dns

NEW QUESTION 142
- (Exam Topic 2)
A company is running a compute workload by using Amazon EC2 Spot Instances that are in an Auto Scaling group. The launch template uses two placement groups and a single instance type.
Recently, a monitoring system reported Auto Scaling instance launch failures that correlated with longer wait times for system users. The company needs to improve the overall reliability of the workload.
Which solution will meet this requirement?

A. Replace the launch template with a launch configuration to use an Auto Scaling group that uses attribute-based instance type selection.
B. Create a new launch template version that uses attribute-based instance type selectio
C. Configure the Auto Scaling group to use the new launch template version.
D. Update the launch template Auto Scaling group to increase the number of placement groups.
E. Update the launch template to use a larger instance type.

Answer: B

Explanation:
https://docs.aws.amazon.com/autoscaling/ec2/userguide/create-asg-instance-type-requirements.html#use-attribut

NEW QUESTION 147
- (Exam Topic 2)
A solutions architect is designing a solution to process events. The solution must have the ability to scale in and out based on the number of events that the solution receives. If a processing error occurs, the event must move into a separate queue for review.
Which solution will meet these requirements?

A. Send event details to an Amazon Simple Notification Service (Amazon SNS) topi
B. Configure an AWS Lambda function as a subscriber to the SNS topic to process the event
C. Add an on-failure destination to the functio
D. Set an Amazon Simple Queue Service (Amazon SQS) queue as the target.
E. Publish events to an Amazon Simple Queue Service (Amazon SQS) queu
F. Create an Amazon EC2 Auto Scaling grou
G. Configure the Auto Scaling group to scale in and out based on the ApproximateAgeOfOldestMessage metric of the queu
H. Configure the application to write failed messages to a dead-letter queue.
I. Write events to an Amazon DynamoDB tabl
J. Configure a DynamoDB stream for the tabl
K. Configure the stream to invoke an AWS Lambda functio
L. Configure the Lambda function to process the events.
M. Publish events to an Amazon EventBridge event bu
N. Create and run an application on an Amazon EC2 instance with an Auto Scaling group that isbehind an Application Load Balancer (ALB). Set the ALB as the event bus targe
O. Configure the event bus to retry event
P. Write messages to a dead-letter queue if the application cannot process the messages.

Answer: A

Explanation:
Amazon Simple Notification Service (Amazon SNS) is a fully managed pub/sub messaging service that enables users to send messages to multiple subscribers1. Users can send event details to an Amazon SNS topic and configure an AWS Lambda function as a subscriber to the SNS topic to process the events. Lambda is a serverless compute service that runs code in response to events and automatically manages the underlying compute resources2. Users can add an on-failure destination to the function and set an Amazon Simple Queue
Service (Amazon SQS) queue as the target. Amazon SQS is a fully managed message queuing service that enables users to decouple and scale microservices, distributed systems, and serverless applications3. This way, if a processing error occurs, the event will move into the separate queue for review.
Option B is incorrect because publishing events to an Amazon SQS queue and creating an Amazon EC2 Auto Scaling group will not have the ability to scale in and out based on the number of events that the solution receives. Amazon EC2 is a web service that provides secure, resizable compute capacity in the cloud. Auto Scaling is a feature that helps users maintain application availability and allows them to scale their EC2 capacity up or down automatically according to conditions they define. However, for this use case, using SQS and EC2 will not take advantage of the serverless capabilities of Lambda and SNS.
Option C is incorrect because writing events to an Amazon DynamoDB table and configuring a DynamoDB stream for the table will not have the ability to move events into a separate queue for review if a processing error occurs. Amazon DynamoDB is a fully managed key-value and document database that delivers single-digit millisecond performance at any scale. DynamoDB Streams is a feature that captures data
modification events in DynamoDB tables. Users can configure the stream to invoke a Lambda function, but they cannot configure an on-failure destination for the function.
Option D is incorrect because publishing events to an Amazon EventBridge event bus and setting an Application Load Balancer (ALB) as the event bus target will not have the ability to move events into a separate queue for review if a processing error occurs. Amazon EventBridge is a serverless event bus service that makes it easy to connect applications with data from a variety of sources. An ALB is a load balancer that distributes incoming application traffic across multiple targets, such as EC2 instances, containers, IP addresses, Lambda functions, and virtual appliances. Users can configure EventBridge to retry events, but they cannot configure an on-failure destination for the ALB.

NEW QUESTION 149

......