

AWS-Certified-DevOps-Engineer-Professional Dumps

Amazon AWS Certified DevOps Engineer Professional

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NEW QUESTION 1

A company runs an application on one Amazon EC2 instance. Application metadata is stored in Amazon S3 and must be retrieved if the instance is restarted. The instance must restart or relaunch automatically if the instance becomes unresponsive.

Which solution will meet these requirements?

- A. Create an Amazon CloudWatch alarm for the StatusCheckFailed metri
- B. Use the recover action to stop and start the instanc
- C. Use an S3 event notification to push the metadata to the instance when the instance is back up and running.
- D. Configure AWS OpsWorks, and use the auto healing feature to stop and start the instanc
- E. Use a lifecycle event in OpsWorks to pull the metadata from Amazon S3 and update it on the instance.
- F. Use EC2 Auto Recovery to automatically stop and start the instance in case of a failur
- G. Use an S3 event notification to push the metadata to the instance when the instance is back up and running.
- H. Use AWS CloudFormation to create an EC2 instance that includes the UserData property for the EC2 resourc
- I. Add a command in UserData to retrieve the application metadata from Amazon S3.

Answer: B

Explanation:

<https://aws.amazon.com/blogs/mt/how-to-set-up-aws-opsworks-stacks-auto-healing-notifications-in-amazon-cloudwatch-events/>

NEW QUESTION 2

A company has an application that runs on AWS Lambda and sends logs to Amazon CloudWatch Logs. An Amazon Kinesis data stream is subscribed to the log groups in CloudWatch Logs. A single consumer Lambda function processes the logs from the data stream and stores the logs in an Amazon S3 bucket.

The company's DevOps team has noticed high latency during the processing and ingestion of some logs.

Which combination of steps will reduce the latency? (Select THREE.)

- A. Create a data stream consumer with enhanced fan-ou
- B. Set the Lambda function that processes the logs as the consumer.
- C. Increase the ParallelizationFactor setting in the Lambda event source mapping.
- D. Configure reserved concurrency for the Lambda function that processes the logs.
- E. Increase the batch size in the Kinesis data stream.
- F. Turn off the ReportBatchItemFailures setting in the Lambda event source mapping.
- G. Increase the number of shards in the Kinesis data stream.

Answer: ABC

Explanation:

The latency in processing and ingesting logs can be caused by several factors, such as the throughput of the Kinesis data stream, the concurrency of the Lambda function, and the configuration of the event source mapping. To reduce the latency, the following steps can be taken:

? Create a data stream consumer with enhanced fan-out. Set the Lambda function that processes the logs as the consumer. This will allow the Lambda function to receive records from the data stream with dedicated throughput of up to 2 MB per second per shard, independent of other consumers¹. This will reduce the contention and delay in accessing the data stream.

? Increase the ParallelizationFactor setting in the Lambda event source mapping. This will allow the Lambda service to invoke more instances of the function concurrently to process the records from the data stream². This will increase the processing capacity and reduce the backlog of records in the data stream.

? Configure reserved concurrency for the Lambda function that processes the logs. This will ensure that the function has enough concurrency available to handle the increased load from the data stream³. This will prevent the function from being throttled by the account-level concurrency limit.

The other options are not effective or may have negative impacts on the latency. Option D is not suitable because increasing the batch size in the Kinesis data stream will increase the amount of data that the Lambda function has to process in each invocation, which may increase the execution time and latency⁴. Option E is not advisable because turning off the ReportBatchItemFailures setting in the Lambda event source mapping will prevent the Lambda service from retrying the failed records, which may result in data loss. Option F is not necessary because increasing the number of shards in the Kinesis data stream will increase the throughput of the data stream, but it will not affect the processing speed of the Lambda function, which is the bottleneck in this scenario.

References:

? 1: Using AWS Lambda with Amazon Kinesis Data Streams - AWS Lambda

? 2: AWS Lambda event source mappings - AWS Lambda

? 3: Managing concurrency for a Lambda function - AWS Lambda

? 4: AWS Lambda function scaling - AWS Lambda

? : AWS Lambda event source mappings - AWS Lambda

? : Scaling Amazon Kinesis Data Streams with AWS CloudFormation - Amazon Kinesis Data Streams

NEW QUESTION 3

A company deploys a web application on Amazon EC2 instances that are behind an

Application Load Balancer (ALB). The company stores the application code in an AWS CodeCommit repository. When code is merged to the main branch, an AWS Lambda function invokes an AWS CodeBuild project. The CodeBuild project packages the code, stores the packaged code in AWS CodeArtifact, and invokes AWS Systems Manager Run Command to deploy the packaged code to the EC2 instances.

Previous deployments have resulted in defects, EC2 instances that are not running the latest version of the packaged code, and inconsistencies between instances.

Which combination of actions should a DevOps engineer take to implement a more reliable deployment solution? (Select TWO.)

- A. Create a pipeline in AWS CodePipeline that uses the CodeCommit repository as a source provide
- B. Configure pipeline stages that run the CodeBuild project in parallel to build and test the applicatio
- C. In the pipeline, pass the CodeBuild project output artifact to an AWS CodeDeploy action.
- D. Create a pipeline in AWS CodePipeline that uses the CodeCommit repository as a source provide
- E. Create separate pipeline stages that run a CodeBuild project to build and then test the applicatio
- F. In the pipeline, pass the CodeBuild project output artifact to an AWS CodeDeploy action.
- G. Create an AWS CodeDeploy application and a deployment group to deploy the packaged code to the EC2 instance
- H. Configure the ALB for the deployment group.
- I. Create individual Lambda functions that use AWS CodeDeploy instead of Systems Manager to run build, test, and deploy actions.
- J. Create an Amazon S3 bucke
- K. Modify the CodeBuild project to store the packages in the S3 bucket instead of in CodeArtifac

L. Use deploy actions in CodeDeploy to deploy the artifact to the EC2 instances.

Answer: AC

Explanation:

To implement a more reliable deployment solution, a DevOps engineer should take the following actions:

? Create a pipeline in AWS CodePipeline that uses the CodeCommit repository as a source provider. Configure pipeline stages that run the CodeBuild project in parallel to build and test the application. In the pipeline, pass the CodeBuild project output artifact to an AWS CodeDeploy action. This action will improve the deployment reliability by automating the entire process from code commit to deployment, reducing human errors and inconsistencies. By running the build and test stages in parallel, the pipeline can also speed up the delivery time and provide faster feedback. By using CodeDeploy as the deployment action, the pipeline can leverage the features of CodeDeploy, such as traffic shifting, health checks, rollback, and deployment configuration¹²³

? Create an AWS CodeDeploy application and a deployment group to deploy the packaged code to the EC2 instances. Configure the ALB for the deployment group. This action will improve the deployment reliability by using CodeDeploy to orchestrate the deployment across multiple EC2 instances behind an ALB. CodeDeploy can perform blue/green deployments or in-place deployments with traffic shifting, which can minimize downtime and reduce risks. CodeDeploy can also monitor the health of the instances during and after the deployment, and automatically roll back if any issues are detected. By configuring the ALB for the deployment group, CodeDeploy can register and deregister instances from the load balancer as needed, ensuring that only healthy instances receive traffic⁴⁵

The other options are not correct because they do not improve the deployment reliability or follow best practices. Creating separate pipeline stages that run a CodeBuild project to build and then test the application is not a good option because it will increase the pipeline execution time and delay the feedback loop. Creating individual Lambda functions that use CodeDeploy instead of Systems Manager to run build, test, and deploy actions is not a valid option because it will add unnecessary complexity and cost to the solution. Lambda functions are not designed for long-running tasks such as building or deploying applications.

Creating an Amazon S3 bucket and modifying the CodeBuild project to store the packages in the S3 bucket instead of in CodeArtifact is not a necessary option because it will not affect the deployment reliability. CodeArtifact is a secure, scalable, and cost-effective package management service that can store and share software packages for application development⁶⁷

References:

? 1: What is AWS CodePipeline? - AWS CodePipeline

? 2: Create a pipeline in AWS CodePipeline - AWS CodePipeline

? 3: Deploy an application with AWS CodeDeploy - AWS CodePipeline

? 4: What is AWS CodeDeploy? - AWS CodeDeploy

? 5: Configure an Application Load Balancer for your blue/green deployments - AWS CodeDeploy

? 6: What is AWS Lambda? - AWS Lambda

? 7: What is AWS CodeArtifact? - AWS CodeArtifact

NEW QUESTION 4

A company is adopting AWS CodeDeploy to automate its application deployments for a Java-Apache Tomcat application with an Apache Webserver. The development team started with a proof of concept, created a deployment group for a developer environment, and performed functional tests within the application. After completion, the team will create additional deployment groups for staging and production.

The current log level is configured within the Apache settings, but the team wants to change this configuration dynamically when the deployment occurs, so that they can set different log level configurations depending on the deployment group without having a different application revision for each group.

How can these requirements be met with the LEAST management overhead and without requiring different script versions for each deployment group?

A. Tag the Amazon EC2 instances depending on the deployment group

B. Then place a script into the application revision that calls the metadata service and the EC2 API to identify which deployment group the instance is part of

C. Use this information to configure the log level setting

D. Reference the script as part of the AfterInstall lifecycle hook in the appspec.yml file.

E. Create a script that uses the CodeDeploy environment variable DEPLOYMENT_GROUP_NAME to identify which deployment group the instance is part of

F. Use this information to configure the log level setting

G. Reference this script as part of the BeforeInstall lifecycle hook in the appspec.yml file.

H. Create a CodeDeploy custom environment variable for each environment

I. Then place a script into the application revision that checks this environment variable to identify which deployment group the instance is part of

J. Use this information to configure the log level setting

K. Reference this script as part of the ValidateService lifecycle hook in the appspec.yml file.

L. Create a script that uses the CodeDeploy environment variable DEPLOYMENT_GROUP_ID to identify which deployment group the instance is part of to configure the log level setting

M. Reference this script as part of the Install lifecycle hook in the appspec.yml file.

Answer: B

Explanation:

The following are the steps that the company can take to change the log level dynamically when the deployment occurs:

? Create a script that uses the CodeDeploy environment variable DEPLOYMENT_GROUP_NAME to identify which deployment group the instance is part of.

? Use this information to configure the log level settings.

? Reference this script as part of the BeforeInstall lifecycle hook in the appspec.yml file.

The DEPLOYMENT_GROUP_NAME environment variable is automatically set by CodeDeploy when the deployment is triggered. This means that the script does not need to call the metadata service or the EC2 API to identify the deployment group.

This solution is the least complex and requires the least management overhead. It also does not require different script versions for each deployment group.

The following are the reasons why the other options are not correct:

? Option A is incorrect because it would require tagging the Amazon EC2 instances, which would be a manual and time-consuming process.

? Option C is incorrect because it would require creating a custom environment variable for each environment. This would be a complex and error-prone process.

? Option D is incorrect because it would use

the DEPLOYMENT_GROUP_ID environment variable. However, this variable is not automatically set by CodeDeploy, so the script would need to call the metadata service or the EC2 API to get the deployment group ID. This would add complexity and overhead to the solution.

NEW QUESTION 5

A company's DevOps engineer uses AWS Systems Manager to perform maintenance tasks during maintenance windows. The company has a few Amazon EC2 instances that require a restart after notifications from AWS Health. The DevOps engineer needs to implement an automated solution to remediate these notifications. The DevOps engineer creates an Amazon EventBridge rule.

How should the DevOps engineer configure the EventBridge rule to meet these requirements?

A. Configure an event source of AWS Health, a service of EC2. and an event type that indicates instance maintenance

B. Target a Systems Manager document to restart the EC2 instance.

C. Configure an event source of Systems Manager and an event type that indicates a maintenance window

- D. Target a Systems Manager document to restart the EC2 instance.
- E. Configure an event source of AWS Health, a service of EC2, and an event type that indicates instance maintenanc
- F. Target a newly created AWS Lambda function that registers an automation task to restart the EC2 instance during a maintenance window.
- G. Configure an event source of EC2 and an event type that indicates instance maintenanc
- H. Target a newly created AWS Lambda function that registers an automation task to restart the EC2 instance during a maintenance window.

Answer: C

Explanation:

AWS Health provides real-time events and information related to your AWS infrastructure. It can be integrated with Amazon EventBridge to act upon the health events automatically. If the maintenance notification from AWS Health indicates that an EC2 instance requires a restart, you can set up an EventBridge rule to respond to such events. In this case, the target of this rule would be a Lambda function that would trigger a Systems Manager automation to restart the EC2 instance during a maintenance window. Remember, AWS Health is the source of the events (not EC2 or Systems Manager), and AWS Lambda can be used to execute complex remediation tasks, such as scheduling maintenance tasks via Systems Manager.

The following are the steps involved in configuring the EventBridge rule to meet these requirements:

? Configure an event source of AWS Health, a service of EC2, and an event type that indicates instance maintenance.

? Target a newly created AWS Lambda function that registers an automation task to restart the EC2 instance during a maintenance window.

The AWS Lambda function will be triggered by the event from AWS Health. The function will then register an automation task to restart the EC2 instance during the next maintenance window.

NEW QUESTION 6

A company wants to use AWS development tools to replace its current bash deployment scripts. The company currently deploys a LAMP application to a group of Amazon EC2 instances behind an Application Load Balancer (ALB). During the deployments, the company unit tests the committed application, stops and starts services, unregisters and re-registers instances with the load balancer, and updates file permissions. The company wants to maintain the same deployment functionality through the shift to using AWS services.

Which solution will meet these requirements?

- A. Use AWS CodeBuild to test the applicatio
- B. Use bash scripts invoked by AWS CodeDeploy's appspec.yml file to restart services, and deregister and register instances with the AL
- C. Use the appspec.yml file to update file permissions without a custom script.
- D. Use AWS CodePipeline to move the application from the AWS CodeCommit repository to AWS CodeDeplo
- E. Use CodeDeploy's deployment group to test the application, unregister and re-register instances with the AL
- F. and restart service
- G. Use the appspec.yml file to update file permissions without a custom script.
- H. Use AWS CodePipeline to move the application source code from the AWS CodeCommit repository to AWS CodeDeplo
- I. Use CodeDeploy to test the applicatio
- J. Use CodeDeploy's appspec.yml file to restart services and update permissions without a custom scrip
- K. Use AWS CodeBuild to unregister and re-register instances with the ALB.
- L. Use AWS CodePipeline to trigger AWS CodeBuild to test the applicatio
- M. Use bash scripts invoked by AWS CodeDeploy's appspec.yml file to restart service
- N. Unregister and re-register the instances in the AWS CodeDeploy deployment group with the AL
- O. Update the appspec.yml file to update file permissions without a custom script.

Answer: D

Explanation:

<https://aws.amazon.com/blogs/devops/how-to-test-and-debug-aws-codedeploy-locally-before-you-ship-your-code/#:~:text=You%20can%20test%20application%20code,local%20server%20or%20EC2%20instance.>

NEW QUESTION 7

A company uses AWS Key Management Service (AWS KMS) keys and manual key rotation to meet regulatory compliance requirements. The security team wants to be notified when any keys have not been rotated after 90 days.

Which solution will accomplish this?

- A. Configure AWS KMS to publish to an Amazon Simple Notification Service (Amazon SNS) topic when keys are more than 90 days old.
- B. Configure an Amazon EventBridge event to launch an AWS Lambda function to call the AWS Trusted Advisor API and publish to an Amazon Simple Notification Service (Amazon SNS) topic.
- C. Develop an AWS Config custom rule that publishes to an Amazon Simple Notification Service (Amazon SNS) topic when keys are more than 90 days old.
- D. Configure AWS Security Hub to publish to an Amazon Simple Notification Service (Amazon SNS) topic when keys are more than 90 days old.

Answer: C

Explanation:

<https://aws.amazon.com/blogs/security/how-to-use-aws-config-to-determine-compliance-of-aws-kms-key-policies-to-your-specifications/>

NEW QUESTION 8

A company is migrating its on-premises Windows applications and Linux applications to AWS. The company will use automation to launch Amazon EC2 instances to mirror the on- premises configurations. The migrated applications require access to shared storage that uses SMB for Windows and NFS for Linux.

The company is also creating a pilot light disaster recovery (DR) environment in another AWS Region. The company will use automation to launch and configure the EC2 instances in the DR Region. The company needs to replicate the storage to the DR Region.

Which storage solution will meet these requirements?

- A. Use Amazon S3 for the application storag
- B. Create an S3 bucket in the primary Region and an S3 bucket in the DR Regio
- C. Configure S3 Cross-Region Replication (CRR) from the primary Region to the DR Region.
- D. Use Amazon Elastic Block Store (Amazon EBS) for the application storag
- E. Create a backup plan in AWS Backup that creates snapshots of the EBS volumes that are in the primary Region and replicates the snapshots to the DR Region.
- F. Use a Volume Gateway in AWS Storage Gateway for the application storag

- G. Configure Cross-Region Replication (CRR) of the Volume Gateway from the primary Region to the DR Region.
- H. Use Amazon FSx for NetApp ONTAP for the application storag
- I. Create an FSx for ONTAP instance in the DR Regio
- J. Configure NetApp SnapMirror replication from the primary Region to the DR Region.

Answer: D

Explanation:

To meet the requirements of migrating its on-premises Windows and Linux applications to AWS and creating a pilot light DR environment in another AWS Region, the company should use Amazon FSx for NetApp ONTAP for the application storage. Amazon FSx for NetApp ONTAP is a fully managed service that provides highly reliable, scalable, high-performing, and feature-rich file storage built on NetApp's popular ONTAP file system. FSx for ONTAP supports multiple protocols, including SMB for Windows and NFS for Linux, so the company can access the shared storage from both types of applications. FSx for ONTAP also supports NetApp SnapMirror replication, which enables the company to replicate the storage to the DR Region. NetApp SnapMirror replication is efficient, secure, and incremental, and it preserves the data deduplication and compression benefits of FSx for ONTAP. The company can use automation to launch and configure the EC2 instances in the DR Region and then use NetApp SnapMirror to restore the data from the primary Region.

The other options are not correct because they do not meet the requirements or follow best practices. Using Amazon S3 for the application storage is not a good option because S3 is an object storage service that does not support SMB or NFS protocols natively. The company would need to use additional services or software to mount S3 buckets as file systems, which would add complexity and cost. Using Amazon EBS for the application storage is also not a good option because EBS is a block storage service that does not support SMB or NFS protocols natively. The company would need to set up and manage file servers on EC2 instances to provide shared access to the EBS volumes, which would add overhead and maintenance. Using a Volume Gateway in AWS Storage Gateway for the application storage is not a valid option because Volume Gateway does not support SMB protocol. Volume Gateway only supports iSCSI protocol, which means that only Linux applications can access the shared storage.

References:

- ? 1: What is Amazon FSx for NetApp ONTAP? - FSx for ONTAP
- ? 2: Amazon FSx for NetApp ONTAP
- ? 3: Amazon FSx for NetApp ONTAP | NetApp
- ? 4: AWS Announces General Availability of Amazon FSx for NetApp ONTAP
- ? : Replicating Data with NetApp SnapMirror - FSx for ONTAP
- ? : What Is Amazon S3? - Amazon Simple Storage Service
- ? : What Is Amazon Elastic Block Store (Amazon EBS)? - Amazon Elastic Compute Cloud
- ? : What Is AWS Storage Gateway? - AWS Storage Gateway

NEW QUESTION 9

A company is using an organization in AWS Organizations to manage multiple AWS accounts. The company's development team wants to use AWS Lambda functions to meet resiliency requirements and is rewriting all applications to work with Lambda functions that are deployed in a VPC. The development team is using Amazon Elastic File System (Amazon EFS) as shared storage in Account A in the organization.

The company wants to continue to use Amazon EFS with Lambda. Company policy requires all serverless projects to be deployed in Account B.

A DevOps engineer needs to reconfigure an existing EFS file system to allow Lambda functions to access the data through an existing EFS access point.

Which combination of steps should the DevOps engineer take to meet these requirements? (Select THREE.)

- A. Update the EFS file system policy to provide Account B with access to mount and write to the EFS file system in Account A.
- B. Create SCPs to set permission guardrails with fine-grained control for Amazon EFS.
- C. Create a new EFS file system in Account B. Use AWS Database Migration Service (AWS DMS) to keep data from Account A and Account B synchronized.
- D. Update the Lambda execution roles with permission to access the VPC and the EFS file system.
- E. Create a VPC peering connection to connect Account A to Account B.
- F. Configure the Lambda functions in Account B to assume an existing IAM role in Account A.

Answer: AEF

Explanation:

A Lambda function in one account can mount a file system in a different account. For this scenario, you configure VPC peering between the function VPC and the file system VPC. <https://docs.aws.amazon.com/lambda/latest/dg/services-efs.html> <https://aws.amazon.com/ru/blogs/storage/mount-amazon-efs-file-systems-cross-account-from-amazon-eks/>

* 1. Need to update the file system policy on EFS to allow mounting the file system into Account B.

File System Policy

\$ cat file-system-policy.json

```
{
  "Statement": [
    {
      "Effect": "Allow", "Action": [
        "elasticfilesystem:ClientMount", "elasticfilesystem:ClientWrite"
      ],
      "Principal": {
        "AWS": "arn:aws:iam::<aws-account-id-A>:root" # Replace with AWS account ID of EKS cluster
      }
    }
  ]
}
```

* 2. Need VPC peering between Account A and Account B as the pre-requisite

* 3. Need to assume cross-account IAM role to describe the mounts so that a specific mount can be chosen.

NEW QUESTION 10

A company is developing a new application. The application uses AWS Lambda functions for its compute tier. The company must use a canary deployment for any changes to the Lambda functions. Automated rollback must occur if any failures are reported.

The company's DevOps team needs to create the infrastructure as code (IaC) and the CI/CD pipeline for this solution.

Which combination of steps will meet these requirements? (Choose three.)

- A. Create an AWS CloudFormation template for the applicatio
- B. Define each Lambda function in the template by using the AWS::Lambda::Function resource typ
- C. In the template, include a version for the Lambda function by using the AWS::Lambda::Version resource typ
- D. Declare the CodeSha256 property

- E. Configure an AWS::Lambda::Alias resource that references the latest version of the Lambda function.
- F. Create an AWS Serverless Application Model (AWS SAM) template for the applicatio
- G. Define each Lambda function in the template by using the AWS::Serverless::Function resource typ
- H. For each function, include configurations for the AutoPublishAlias property and the DeploymentPreference propert
- I. Configure the deployment configuration type to LambdaCanary10Percent10Minutes.
- J. Create an AWS CodeCommit repositor
- K. Create an AWS CodePipeline pipelin
- L. Use the CodeCommit repository in a new source stage that starts the pipelin
- M. Create an AWS CodeBuild project to deploy the AWS Serverless Application Model (AWS SAM) templat
- N. Upload the template and source code to the CodeCommit repositor
- O. In the CodeCommit repository, create a buildspec.yml file that includes the commands to build and deploy the SAM application.
- P. Create an AWS CodeCommit repositor
- Q. Create an AWS CodePipeline pipelin
- R. Use the CodeCommit repository in a new source stage that starts the pipelin
- S. Create an AWS CodeDeploy deployment group that is configured for canary deployments with a DeploymentPreference type of Canary10Percent10Minute
- T. Upload the AWS CloudFormation template and source code to the CodeCommit repositor
- . In the CodeCommit repository, create an appspec.yml file that includes the commands to deploy the CloudFormation template.
- . Create an Amazon CloudWatch composite alarm for all the Lambda function
- . Configure an evaluation period and dimensions for Lambd
- . Configure the alarm to enter the ALARMstate if any errors are detected or if there is insufficient data.
- . Create an Amazon CloudWatch alarm for each Lambda functio
- . Configure the alarms to enter the ALARM state if any errors are detecte
- . Configure an evaluation period, dimensions for each Lambda function and version, and the namespace as AWS/Lambda on the Errors metric.

Answer: BCF

Explanation:

The requirement is to create the infrastructure as code (IaC) and the CI/CD pipeline for the Lambda application that uses canary deployment and automated rollback. To do this, the DevOps team needs to use the following steps:

? Create an AWS Serverless Application Model (AWS SAM) template for the application. AWS SAM is a framework that simplifies the development and deployment of serverless applications on AWS. AWS SAM allows customers to define Lambda functions and other resources in a template by using a simplified syntax. For each Lambda function, the DevOps team can include configurations for the AutoPublishAlias property and the DeploymentPreference property. The AutoPublishAlias property specifies the name of the alias that points to the latest version of the function. The DeploymentPreference property specifies how CodeDeploy deploys new versions of the function. By configuring the deployment configuration type to LambdaCanary10Percent10Minutes, the DevOps team can enable canary deployment with 10% of traffic shifted to the new version every 10 minutes.

? Create an AWS CodeCommit repository. Create an AWS CodePipeline pipeline.

Use the CodeCommit repository in a new source stage that starts the pipeline. Create an AWS CodeBuild project to deploy the AWS SAM template. CodeCommit is a fully managed source control service that hosts Git repositories. CodePipeline is a fully managed continuous delivery service that automates the release process of software applications. CodeBuild is a fully managed continuous integration service that compiles source code and runs tests. By using these services, the DevOps team can create a CI/CD pipeline for the Lambda application. The pipeline should use the CodeCommit repository as the source stage, where the DevOps team can upload the SAM template and source code. The pipeline should also use a CodeBuild project as the build stage, where the SAM template can be built and deployed.

? Create an Amazon CloudWatch alarm for each Lambda function. Configure the alarms to enter the ALARM state if any errors are detected. Configure an evaluation period, dimensions for each Lambda function and version, and the namespace as AWS/Lambda on the Errors metric. CloudWatch is a service that monitors and collects metrics from AWS resources and applications. CloudWatch alarms are actions that are triggered when a metric crosses a specified threshold. By creating CloudWatch alarms for each Lambda function, the DevOps team can monitor the health and performance of each function version during deployment. By configuring the alarms to enter the ALARM state if any errors are detected, the DevOps team can enable automated rollback if any failures are reported.

NEW QUESTION 10

A company runs an application with an Amazon EC2 and on-premises configuration. A DevOps engineer needs to standardize patching across both environments. Company policy dictates that patching only happens during non-business hours. Which combination of actions will meet these requirements? (Choose three.)

- A. Add the physical machines into AWS Systems Manager using Systems Manager Hybrid Activations.
- B. Attach an IAM role to the EC2 instances, allowing them to be managed by AWS Systems Manager.
- C. Create IAM access keys for the on-premises machines to interact with AWS Systems Manager.
- D. Run an AWS Systems Manager Automation document to patch the systems every hour.
- E. Use Amazon EventBridge scheduled events to schedule a patch window.
- F. Use AWS Systems Manager Maintenance Windows to schedule a patch window.

Answer: ABF

Explanation:

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

NEW QUESTION 14

A company has an application that runs on a fleet of Amazon EC2 instances. The application requires frequent restarts. The application logs contain error messages when a restart is required. The application logs are published to a log group in Amazon CloudWatch Logs.

An Amazon CloudWatch alarm notifies an application engineer through an Amazon Simple Notification Service (Amazon SNS) topic when the logs contain a large number of restart- related error messages. The application engineer manually restarts the application on the instances after the application engineer receives a notification from the SNS topic.

A DevOps engineer needs to implement a solution to automate the application restart on the instances without restarting the instances.

Which solution will meet these requirements in the MOST operationally efficient manner?

- A. Configure an AWS Systems Manager Automation runbook that runs a script to restart the application on the instance
- B. Configure the SNS topic to invoke the runbook.
- C. Create an AWS Lambda function that restarts the application on the instance
- D. Configure the Lambda function as an event destination of the SNS topic.
- E. Configure an AWS Systems Manager Automation runbook that runs a script to restart the application on the instance
- F. Create an AWS Lambda function to invoke the runboo

- G. Configure the Lambda function as an event destination of the SNS topic.
- H. Configure an AWS Systems Manager Automation runbook that runs a script to restart the application on the instance
- I. Configure an Amazon EventBridge rule that reacts when the CloudWatch alarm enters ALARM stat
- J. Specify the runbook as a target of the rule.

Answer: D

Explanation:

This solution meets the requirements in the most operationally efficient manner by automating the application restart process on the instances without restarting them. When the CloudWatch alarm enters the ALARM state, the EventBridge rule is triggered, which in turn invokes the Systems Manager Automation runbook that contains the script to restart the application on the instances.

NEW QUESTION 18

A company is using an Amazon Aurora cluster as the data store for its application. The Aurora cluster is configured with a single DB instance. The application performs read and write operations on the database by using the cluster's instance endpoint. The company has scheduled an update to be applied to the cluster during an upcoming maintenance window. The cluster must remain available with the least possible interruption during the maintenance window. What should a DevOps engineer do to meet these requirements?

- A. Add a reader instance to the Aurora cluste
- B. Update the application to use the Aurora cluster endpoint for write operation
- C. Update the Aurora cluster's reader endpoint for reads.
- D. Add a reader instance to the Aurora cluste
- E. Create a custom ANY endpoint for the cluste
- F. Update the application to use the Aurora cluster's custom ANY endpoint for read and write operations.
- G. Turn on the Multi-AZ option on the Aurora cluste
- H. Update the application to use the Aurora cluster endpoint for write operation
- I. Update the Aurora cluster's reader endpoint for reads.
- J. Turn on the Multi-AZ option on the Aurora cluste
- K. Create a custom ANY endpoint for the cluste
- L. Update the application to use the Aurora cluster's custom ANY endpoint for read and write operations.

Answer: C

Explanation:

To meet the requirements, the DevOps engineer should do the following:

- ? Turn on the Multi-AZ option on the Aurora cluster.
- ? Update the application to use the Aurora cluster endpoint for write operations.
- ? Update the Aurora cluster's reader endpoint for reads.

Turning on the Multi-AZ option will create a replica of the database in a different Availability Zone. This will ensure that the database remains available even if one of the Availability Zones is unavailable.

Updating the application to use the Aurora cluster endpoint for write operations will ensure that all writes are sent to both the primary and replica databases. This will ensure that the data is always consistent.

Updating the Aurora cluster's reader endpoint for reads will allow the application to read data from the replica database. This will improve the performance of the application during the maintenance window.

NEW QUESTION 22

A company is developing an application that will generate log events. The log events consist of five distinct metrics every one tenth of a second and produce a large amount of data. The company needs to configure the application to write the logs to Amazon Time stream. The company will configure a daily query against the Timestream table.

Which combination of steps will meet these requirements with the FASTEST query performance? (Select THREE.)

- A. Use batch writes to write multiple log events in a Single write operation
- B. Write each log event as a single write operation
- C. Treat each log as a single-measure record
- D. Treat each log as a multi-measure record
- E. Configure the memory store retention period to be longer than the magnetic store retention period
- F. Configure the memory store retention period to be shorter than the magnetic store retention period

Answer: ADF

Explanation:

A comprehensive and detailed explanation is:

? Option A is correct because using batch writes to write multiple log events in a single write operation is a recommended practice for optimizing the performance and cost of data ingestion in Timestream. Batch writes can reduce the number of network round trips and API calls, and can also take advantage of parallel processing by Timestream. Batch writes can also improve the compression ratio of data in the memory store and the magnetic store, which can reduce the storage costs and improve the query performance¹.

? Option B is incorrect because writing each log event as a single write operation is not a recommended practice for optimizing the performance and cost of data ingestion in Timestream. Writing each log event as a single write operation would increase the number of network round trips and API calls, and would also reduce the compression ratio of data in the memory store and the magnetic store. This would increase the storage costs and degrade the query performance¹.

? Option C is incorrect because treating each log as a single-measure record is not a recommended practice for optimizing the query performance in Timestream. Treating each log as a single-measure record would result in creating multiple records for each timestamp, which would increase the storage size and the query latency. Moreover, treating each log as a single-measure record would require using joins to query multiple measures for the same timestamp, which would add complexity and overhead to the query processing².

? Option D is correct because treating each log as a multi-measure record is a recommended practice for optimizing the query performance in Timestream. Treating each log as a multi-measure record would result in creating a single record for each timestamp, which would reduce the storage size and the query latency. Moreover, treating each log as a multi-measure record would allow querying multiple measures for the same timestamp without using joins, which would simplify and speed up the query processing².

? Option E is incorrect because configuring the memory store retention period to be longer than the magnetic store retention period is not a valid option in Timestream. The memory store retention period must always be shorter than or equal to the magnetic store retention period. This ensures that data is moved from the memory store to the magnetic store before it expires out of the memory store³.

? Option F is correct because configuring the memory store retention period to be shorter than the magnetic store retention period is a valid option in Timestream. The memory store retention period determines how long data is kept in the memory store, which is optimized for fast point-in-time queries. The magnetic store retention period determines how long data is kept in the magnetic store, which is optimized for fast analytical queries. By configuring these retention periods appropriately, you can balance your storage costs and query performance according to your application needs.

References:

? 1: Batch writes

? 2: Multi-measure records vs. single-measure records

? 3: Storage

NEW QUESTION 26

A company requires that its internally facing web application be highly available. The architecture is made up of one Amazon EC2 web server instance and one NAT instance that provides outbound internet access for updates and accessing public data.

Which combination of architecture adjustments should the company implement to achieve high availability? (Choose two.)

- A. Add the NAT instance to an EC2 Auto Scaling group that spans multiple Availability Zone
- B. Update the route tables.
- C. Create additional EC2 instances spanning multiple Availability Zone
- D. Add an Application Load Balancer to split the load between them.
- E. Configure an Application Load Balancer in front of the EC2 instance
- F. Configure Amazon CloudWatch alarms to recover the EC2 instance upon host failure.
- G. Replace the NAT instance with a NAT gateway in each Availability Zon
- H. Update the route tables.
- I. Replace the NAT instance with a NAT gateway that spans multiple Availability Zone
- J. Update the route tables.

Answer: BD

Explanation:

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

NEW QUESTION 31

A development team uses AWS CodeCommit, AWS CodePipeline, and AWS CodeBuild to develop and deploy an application. Changes to the code are submitted by pull requests. The development team reviews and merges the pull requests, and then the pipeline builds and tests the application.

Over time, the number of pull requests has increased. The pipeline is frequently blocked because of failing tests. To prevent this blockage, the development team wants to run the unit and integration tests on each pull request before it is merged.

Which solution will meet these requirements?

- A. Create a CodeBuild project to run the unit and integration test
- B. Create a CodeCommit approval rule templat
- C. Configure the template to require the successful invocation of the CodeBuild projec
- D. Attach the approval rule to the project's CodeCommit repository.
- E. Create an Amazon EventBridge rule to match pullRequestCreated events from CodeCommit Create a CodeBuild project to run the unit and integration test
- F. Configure the CodeBuild project as a target of the EventBridge rule that includes a custom event payload with the CodeCommit repository and branch information from the event.
- G. Create an Amazon EventBridge rule to match pullRequestCreated events from CodeComm
- H. Modify the existing CodePipeline pipeline to not run the deploy steps if the build is started from a pull reques
- I. Configure the EventBridge rule to run the pipeline with a custom payload that contains the CodeCommit repository and branch information from the event.
- J. Create a CodeBuild project to run the unit and integration test
- K. Create a CodeCommit notification rule that matches when a pull request is created or update
- L. Configure the notification rule to invoke the CodeBuild project.

Answer: B

Explanation:

CodeCommit generates events in CloudWatch, CloudWatch triggers the CodeBuild <https://aws.amazon.com/es/blogs/devops/complete-ci-cd-with-aws-codecommit-aws-codebuild-aws-codedeploy-and-aws-codepipeline/>

NEW QUESTION 33

A company uses an organization in AWS Organizations to manage its AWS accounts. The company recently acquired another company that has standalone AWS accounts. The acquiring company's DevOps team needs to consolidate the administration of the AWS accounts for both companies and retain full administrative control of the accounts. The DevOps team also needs to collect and group findings across all the accounts to implement and maintain a security posture.

Which combination of steps should the DevOps team take to meet these requirements? (Select TWO.)

- A. Invite the acquired company's AWS accounts to join the organizatio
- B. Create an SCP that has full administrative privilege
- C. Attach the SCP to the management account.
- D. Invite the acquired company's AWS accounts to join the organizatio
- E. Create the OrganizationAccountAccessRole 1AM role in the invited account
- F. Grant permission to the management account to assume the role.
- G. Use AWS Security Hub to collect and group findings across all account
- H. Use Security Hub to automatically detect new accounts as the accounts are added to the organization.
- I. Use AWS Firewall Manager to collect and group findings across all account
- J. Enable all features for the organizatio
- K. Designate an account in the organization as the delegated administrator account for Firewall Manager.
- L. Use Amazon Inspector to collect and group findings across all account
- M. Designate an account in the organization as the delegated administrator account for Amazon Inspector.

Answer: BC

Explanation:

The correct answer is B and C. Option B is correct because inviting the acquired company's AWS accounts to join the organization and creating the OrganizationAccountAccessRole IAM role in the invited accounts allows the management account to assume the role and gain full administrative access to the member accounts. Option C is correct because using AWS Security Hub to collect and group findings across all accounts enables the DevOps team to monitor and improve the security posture of the organization. Security Hub can automatically detect new accounts as the accounts are added to the organization and enable Security Hub for them. Option A is incorrect because creating an SCP that has full administrative privileges and attaching it to the management account does not grant the management account access to the member accounts. SCPs are used to restrict the permissions of the member accounts, not to grant permissions to the management account. Option D is incorrect because using AWS Firewall Manager to collect and group findings across all accounts is not a valid use case for Firewall Manager. Firewall Manager is used to centrally configure and manage firewall rules across the organization, not to collect and group security findings. Option E is incorrect because using Amazon Inspector to collect and group findings across all accounts is not a valid use case for Amazon Inspector. Amazon Inspector is used to assess the security and compliance of applications running on Amazon EC2 instances, not to collect and group security findings across accounts. References:

? Inviting an AWS account to join your organization

? Enabling and disabling AWS Security Hub

? Service control policies

? AWS Firewall Manager

? Amazon Inspector

NEW QUESTION 36

A company's DevOps engineer is working in a multi-account environment. The company uses AWS Transit Gateway to route all outbound traffic through a network operations account. In the network operations account all account traffic passes through a firewall appliance for inspection before the traffic goes to an internet gateway.

The firewall appliance sends logs to Amazon CloudWatch Logs and includes event

severities of CRITICAL, HIGH, MEDIUM, LOW, and INFO. The security team wants to receive an alert if any CRITICAL events occur.

What should the DevOps engineer do to meet these requirements?

A. Create an Amazon CloudWatch Synthetics canary to monitor the firewall stat

B. If the firewall reaches a CRITICAL state or logs a CRITICAL event use a CloudWatch alarm to publish a notification to an Amazon Simple Notification Service (Amazon SNS) topic Subscribe the security team's email address to the topic.

C. Create an Amazon CloudWatch metric filter by using a search for CRITICAL events Publish a custom metric for the findin

D. Use a CloudWatch alarm based on the custom metric to publish a notification to an Amazon Simple Notification Service (Amazon SNS) topi

E. Subscribe the security team's email address to the topic.

F. Enable Amazon GuardDuty in the network operations accoun

G. Configure GuardDuty to monitor flow logs Create an Amazon EventBridge event rule that is invoked by GuardDuty events that are CRITICAL Define an Amazon Simple Notification Service (Amazon SNS) topic as a target Subscribe the security team's email address to the topic.

H. Use AWS Firewall Manager to apply consistent policies across all account

I. Create an Amazo

J. EventBridge event rule that is invoked by Firewall Manager events that are CRITICAL Define an Amazon Simple Notification Service (Amazon SNS) topic as a target Subscribe the security team's email address to the topic.

Answer: B

Explanation:

"The firewall appliance sends logs to Amazon CloudWatch Logs and includes event severities of CRITICAL, HIGH, MEDIUM, LOW, and INFO"

NEW QUESTION 37

A company is testing a web application that runs on Amazon EC2 instances behind an Application Load Balancer. The instances run in an Auto Scaling group across multiple Availability Zones. The company uses a blue green deployment process with immutable instances when deploying new software.

During testing users are being automatically logged out of the application at random times. Testers also report that when a new version of the application is deployed all users are logged out. The development team needs a solution to ensure users remain logged m across scaling events and application deployments.

What is the MOST operationally efficient way to ensure users remain logged in?

A. Enable smart sessions on the load balancer and modify the application to check tor an existing session.

B. Enable session sharing on the toad balancer and modify the application to read from the session store.

C. Store user session information in an Amazon S3 bucket and modify the application to read session information from the bucket.

D. Modify the application to store user session information in an Amazon ElastiCache cluster.

Answer: D

Explanation:

<https://aws.amazon.com/caching/session-management/>

NEW QUESTION 39

A company needs a strategy for failover and disaster recovery of its data and application. The application uses a MySQL database and Amazon EC2 instances. The company requires a maximum RPO of 2 hours and a maximum RTO of 10 minutes for its data and application at all times.

Which combination of deployment strategies will meet these requirements? (Select TWO.)

A. Create an Amazon Aurora Single-AZ cluster in multiple AWS Regions as the data stor

B. Use Aurora's automatic recovery capabilities in the event of a disaster.

C. Create an Amazon Aurora global database in two AWS Regions as the data stor

D. In the event of a failure, promote the secondary Region to the primary for the applicatio

E. Update the application to use the Aurora cluster endpoint in the secondary Region.

F. Create an Amazon Aurora cluster in multiple AWS Regions as the data stor

G. Use a Network Load Balancer to balance the database traffic in different Regions.

H. Set up the application in two AWS Region

I. Use Amazon Route 53 failover routing that points to Application Load Balancers in both Region

J. Use health checks and Auto Scaling groups in each Region.

K. Set up the application in two AWS Region

L. Configure AWS Global Accelerator to point to Application Load Balancers (ALBs) in both Region

M. Add both ALBs to a single endpoint grou

N. Use health checks and Auto Scaling groups in each Region.

Answer: BE

Explanation:

To meet the requirements of failover and disaster recovery, the company should use the following deployment strategies:

? Create an Amazon Aurora global database in two AWS Regions as the data store.

In the event of a failure, promote the secondary Region to the primary for the application. Update the application to use the Aurora cluster endpoint in the secondary Region. This strategy can provide a low RPO and RTO for the data, as Aurora global database replicates data with minimal latency across Regions and allows fast and easy failover¹². The company can use the Amazon Aurora cluster endpoint to connect to the current primary DB cluster without needing to change any application code¹.

? Set up the application in two AWS Regions. Configure AWS Global Accelerator to

point to Application Load Balancers (ALBs) in both Regions. Add both ALBs to a single endpoint group. Use health checks and Auto Scaling groups in each Region. This strategy can provide high availability and performance for the application, as AWS Global Accelerator uses the AWS global network to route traffic to the closest healthy endpoint³. The company can also use static IP addresses that are assigned by Global Accelerator as a fixed entry point for their application¹. By using health checks and Auto Scaling groups, the company can ensure that their application can scale up or down based on demand and handle any instance failures⁴.

The other options are incorrect because:

? Creating an Amazon Aurora Single-AZ cluster in multiple AWS Regions as the data store would not provide a fast failover or disaster recovery solution, as the company would need to manually restore data from backups or snapshots in another Region in case of a failure.

? Creating an Amazon Aurora cluster in multiple AWS Regions as the data store and using a Network Load Balancer to balance the database traffic in different Regions would not work, as Network Load Balancers do not support cross-Region routing. Moreover, this strategy would not provide a consistent view of the data across Regions, as Aurora clusters do not replicate data automatically between Regions unless they are part of a global database.

? Setting up the application in two AWS Regions and using Amazon Route 53 failover routing that points to Application Load Balancers in both Regions would not provide a low RTO, as Route 53 failover routing relies on DNS resolution, which can take time to propagate changes across different DNS servers and clients. Moreover, this strategy would not provide deterministic routing, as Route 53 failover routing depends on DNS caching behavior, which can vary depending on different factors.

NEW QUESTION 42

A company uses a series of individual Amazon Cloud Formation templates to deploy its multi-Region Applications. These templates must be deployed in a specific order. The company is making more changes to the templates than previously expected and wants to deploy new templates more efficiently. Additionally, the data engineering team must be notified of all changes to the templates.

What should the company do to accomplish these goals?

- A. Create an AWS Lambda function to deploy the Cloud Formation templates in the required order Use stack policies to alert the data engineering team.
- B. Host the Cloud Formation templates in Amazon S3 Use Amazon S3 events to directly trigger CloudFormation updates and Amazon SNS notifications.
- C. Implement CloudFormation StackSets and use drift detection to trigger update alerts to the data engineering team.
- D. Leverage CloudFormation nested stacks and stack sets (or deployments Use Amazon SNS to notify the data engineering team.

Answer: D

Explanation:

This solution will meet the requirements because it will use CloudFormation nested stacks and stack sets to deploy the templates more efficiently and consistently across multiple regions. Nested stacks allow the company to separate out common components and reuse templates, while stack sets allow the company to create stacks in multiple accounts and regions with a single template. The company can also use Amazon SNS to send notifications to the data engineering team whenever a change is made to the templates or the stacks. Amazon SNS is a service that allows you to publish messages to subscribers, such as email addresses, phone numbers, or other AWS services. By using Amazon SNS, the company can ensure that the data engineering team is aware of all changes to the templates and can take appropriate actions if needed. What is Amazon SNS? - Amazon Simple Notification Service

NEW QUESTION 45

A company has a legacy application A DevOps engineer needs to automate the process of building the deployable artifact for the legacy application. The solution must store the deployable artifact in an existing Amazon S3 bucket for future deployments to reference

Which solution will meet these requirements in the MOST operationally efficient way?

- A. Create a custom Docker image that contains all the dependencies for the legacy application Store the custom Docker image in a new Amazon Elastic Container Registry (Amazon ECR) repository Configure a new AWS CodeBuild project to use the custom Docker image to build the deployable artifact and to save the artifact to the S3 bucket.
- B. Launch a new Amazon EC2 instance Install all the dependencies (or the legacy application) on the EC2 instance Use the EC2 instance to build the deployable artifact and to save the artifact to the S3 bucket.
- C. Create a custom EC2 Image Builder image Install all the dependencies for the legacy application on the image Launch a new Amazon EC2 instance from the image Use the new EC2 instance to build the deployable artifact and to save the artifact to the S3 bucket.
- D. Create an Amazon Elastic Kubernetes Service (Amazon EKS) cluster with an AWS Fargate profile that runs in multiple Availability Zones Create a custom Docker image that contains all the dependencies for the legacy application Store the custom Docker image in a new Amazon Elastic Container Registry (Amazon ECR) repository Use the custom Docker image inside the EKS cluster to build the deployable artifact and to save the artifact to the S3 bucket.

Answer: A

Explanation:

This approach is the most operationally efficient because it leverages the benefits of containerization, such as isolation and reproducibility, as well as AWS managed services. AWS CodeBuild is a fully managed build service that can compile your source code, run tests, and produce deployable software packages. By using a custom Docker image that includes all dependencies, you can ensure that the environment in which your code is built is consistent. Using Amazon ECR to store Docker images lets you easily deploy the images to any environment. Also, you can directly upload the build artifacts to Amazon S3 from AWS CodeBuild, which is beneficial for version control and archival purposes.

NEW QUESTION 46

A company has deployed an application in a production VPC in a single AWS account. The application is popular and is experiencing heavy usage. The company's security team wants to add additional security, such as AWS WAF, to the application deployment. However, the application's product manager is concerned about cost and does not want to approve the change unless the security team can prove that additional security is necessary.

The security team believes that some of the application's demand might come from users that have IP addresses that are on a deny list. The security team provides the deny list to a DevOps engineer. If any of the IP addresses on the deny list access the application, the security team wants to receive automated

notification in near real time so that the security team can document that the application needs additional security. The DevOps engineer creates a VPC flow log for the production VPC.

Which set of additional steps should the DevOps engineer take to meet these requirements MOST cost-effectively?

- A. Create a log group in Amazon CloudWatch Log
- B. Configure the VPC flow log to capture accepted traffic and to send the data to the log group
- C. Create an Amazon CloudWatch metric filter for IP addresses on the deny list
- D. Create a CloudWatch alarm with the metric filter as input
- E. Set the period to 5 minutes and the datapoints to alarm to 1. Use an Amazon Simple Notification Service (Amazon SNS) topic to send alarm notices to the security team.
- F. Create an Amazon S3 bucket for log file
- G. Configure the VPC flow log to capture all traffic and to send the data to the S3 bucket
- H. Configure Amazon Athena to return all log files in the S3 bucket for IP addresses on the deny list
- I. Configure Amazon QuickSight to accept data from Athena and to publish the data as a dashboard that the security team can access
- J. Create a threshold alert of 1 for successful access
- K. Configure the alert to automatically notify the security team as frequently as possible when the alert threshold is met.
- L. Create an Amazon S3 bucket for log file
- M. Configure the VPC flow log to capture accepted traffic and to send the data to the S3 bucket
- N. Configure an Amazon OpenSearch Service cluster and domain for the log file
- O. Create an AWS Lambda function to retrieve the logs from the S3 bucket, format the logs, and load the logs into the OpenSearch Service cluster
- P. Schedule the Lambda function to run every 5 minutes
- Q. Configure an alert and condition in OpenSearch Service to send alerts to the security team through an Amazon Simple Notification Service (Amazon SNS) topic when access from the IP addresses on the deny list is detected.
- R. Create a log group in Amazon CloudWatch Log
- S. Create an Amazon S3 bucket to hold query results
- T. Configure the VPC flow log to capture all traffic and to send the data to the log group
- U. Deploy an Amazon Athena CloudWatch connector in AWS Lambda
- V. Connect the connector to the log group
- W. Configure Athena to periodically query for all accepted traffic from the IP addresses on the deny list and to store the results in the S3 bucket
- X. Configure an S3 event notification to automatically notify the security team through an Amazon Simple Notification Service (Amazon SNS) topic when new objects are added to the S3 bucket.

Answer: A

NEW QUESTION 50

A company uses AWS and has a VPC that contains critical compute infrastructure with predictable traffic patterns. The company has configured VPC flow logs that are published to a log group in Amazon CloudWatch Logs.

The company's DevOps team needs to configure a monitoring solution for the VPC flow logs to identify anomalies in network traffic to the VPC over time. If the monitoring solution detects an anomaly, the company needs the ability to initiate a response to the anomaly.

How should the DevOps team configure the monitoring solution to meet these requirements?

- A. Create an Amazon Kinesis data stream
- B. Subscribe the log group to the data stream
- C. Configure Amazon Kinesis Data Analytics to detect log anomalies in the data stream
- D. Create an AWS Lambda function to use as the output of the data stream
- E. Configure the Lambda function to write to the default Amazon EventBridge event bus in the event of an anomaly finding.
- F. Create an Amazon Kinesis Data Firehose delivery stream that delivers events to an Amazon S3 bucket
- G. Subscribe the log group to the delivery stream
- H. Configure Amazon Lookout for Metrics to monitor the data in the S3 bucket for anomalies
- I. Create an AWS Lambda function to run in response to Lookout for Metrics anomaly finding
- J. Configure the Lambda function to publish to the default Amazon EventBridge event bus.
- K. Create an AWS Lambda function to detect anomalies
- L. Configure the Lambda function to publish an event to the default Amazon EventBridge event bus if the Lambda function detects an anomaly
- M. Subscribe the Lambda function to the log group.
- N. Create an Amazon Kinesis data stream
- O. Subscribe the log group to the data stream
- P. Create an AWS Lambda function to detect anomalies
- Q. Configure the Lambda function to write to the default Amazon EventBridge event bus if the Lambda function detects an anomaly
- R. Set the Lambda function as the processor for the data stream.

Answer: D

Explanation:

To meet the requirements, the DevOps team needs to configure a monitoring solution for the VPC flow logs that can detect anomalies in network traffic over time and initiate a response to the anomaly. The DevOps team can use Amazon Kinesis Data Streams to ingest and process streaming data from CloudWatch Logs. The DevOps team can subscribe the log group to a Kinesis data stream, which will deliver log events from CloudWatch Logs to Kinesis Data Streams in near real-time. The DevOps team can then create an AWS Lambda function to detect log anomalies using machine learning or statistical methods. The Lambda function can be set as a processor for the data stream, which means that it will process each record from the stream before sending it to downstream applications or destinations. The Lambda function can also write to the default Amazon EventBridge event bus if it detects an anomaly, which will allow other AWS services or custom applications to respond to the anomaly event.

NEW QUESTION 53

A space exploration company receives telemetry data from multiple satellites. Small packets of data are received through Amazon API Gateway and are placed directly into an Amazon Simple Queue Service (Amazon SQS) standard queue. A custom application is subscribed to the queue and transforms the data into a standard format.

Because of inconsistencies in the data that the satellites produce, the application is occasionally unable to transform the data. In these cases, the messages remain in the SQS queue. A DevOps engineer must develop a solution that retains the failed messages and makes them available to scientists for review and future processing.

Which solution will meet these requirements?

- A. Configure AWS Lambda to poll the SQS queue and invoke a Lambda function to check whether the queue messages are valid

- B. If validation fails, send a copy of the data that is not valid to an Amazon S3 bucket so that the scientists can review and correct the data
- C. When the data is corrected, amend the message in the SQS queue by using a replay Lambda function with the corrected data.
- D. Convert the SQS standard queue to an SQS FIFO queue
- E. Configure AWS Lambda to poll the SQS queue every 10 minutes by using an Amazon EventBridge schedule
- F. Invoke the Lambda function to identify any messages with a SentTimestamp value that is older than 5 minutes, push the data to the same location as the application's output location, and remove the messages from the queue.
- G. Create an SQS dead-letter queue
- H. Modify the existing queue by including a redrive policy that sets the Maximum Receives setting to 1 and sets the dead-letter queue ARN to the ARN of the newly created queue
- I. Instruct the scientists to use the dead-letter queue to review the data that is not valid
- J. Reprocess this data at a later time.
- K. Configure API Gateway to send messages to different SQS virtual queues that are named for each of the satellites
- L. Update the application to use a new virtual queue for any data that it cannot transform, and send the message to the new virtual queue
- M. Instruct the scientists to use the virtual queue to review the data that is not valid
- N. Reprocess this data at a later time.

Answer: C

Explanation:

Create an SQS dead-letter queue. Modify the existing queue by including a redrive policy that sets the Maximum Receives setting to 1 and sets the dead-letter queue ARN to the ARN of the newly created queue. Instruct the scientists to use the dead-letter queue to review the data that is not valid. Reprocess this data at a later time.

NEW QUESTION 57

A company has multiple development teams in different business units that work in a shared single AWS account. All Amazon EC2 resources that are created in the account must include tags that specify who created the resources. The tagging must occur within the first hour of resource creation.

A DevOps engineer needs to add tags to the created resources that include the user ID that created the resource and the cost center ID. The DevOps engineer configures an AWS Lambda function with the cost center mappings to tag the resources. The DevOps engineer also sets up AWS CloudTrail in the AWS account.

An Amazon S3 bucket stores the CloudTrail event logs.

Which solution will meet the tagging requirements?

- A. Create an S3 event notification on the S3 bucket to invoke the Lambda function for s3:ObjectTagging:Put event
- B. Enable bucket versioning on the S3 bucket.
- C. Enable server access logging on the S3 bucket
- D. Create an S3 event notification on the S3 bucket for s3:ObjectTagging:Put events
- E. Create a recurring hourly Amazon EventBridge scheduled rule that invokes the Lambda function
- F. Modify the Lambda function to read the logs from the S3 bucket
- G. Create an Amazon EventBridge rule that uses Amazon EC2 as the event source
- H. Configure the rule to match events delivered by CloudTrail
- I. Configure the rule to target the Lambda function

Answer: D

Explanation:

? Option A is incorrect because S3 event notifications do not support s3:ObjectTagging:Put events. S3 event notifications only support events related to object creation, deletion, replication, and restore. Moreover, enabling bucket versioning on the S3 bucket is not relevant to the tagging requirements, as it only keeps multiple versions of objects in the bucket.

? Option B is incorrect because enabling server access logging on the S3 bucket does not help with tagging the resources. Server access logging only records requests for access to the bucket or its objects. It does not capture the user ID or the cost center ID of the resources. Furthermore, creating an S3 event notification on the S3 bucket for s3:ObjectTagging:Put events is not possible, as explained in option A.

? Option C is incorrect because creating a recurring hourly Amazon EventBridge scheduled rule that invokes the Lambda function is not efficient or timely. The Lambda function would have to read the logs from the S3 bucket every hour and tag the resources accordingly, which could incur unnecessary costs and delays. A better solution would be to trigger the Lambda function as soon as a resource is created, rather than waiting for an hourly schedule.

? Option D is correct because creating an Amazon EventBridge rule that uses Amazon EC2 as the event source and matches events delivered by CloudTrail is a valid way to tag the resources. CloudTrail records all API calls made to AWS services, including EC2, and delivers them as events to EventBridge. The EventBridge rule can filter the events based on the user ID and the resource type, and then target the Lambda function to tag the resources with the cost center ID. This solution meets the tagging requirements in a timely and efficient manner.

References:

- ? S3 event notifications
- ? Server access logging
- ? Amazon EventBridge rules
- ? AWS CloudTrail

NEW QUESTION 62

A company uses AWS CodeCommit for source code control. Developers apply their changes to various feature branches and create pull requests to move those changes to the main branch when the changes are ready for production.

The developers should not be able to push changes directly to the main branch. The company applied the AWSCodeCommitPowerUser managed policy to the developers' IAM role, and now these developers can push changes to the main branch directly on every repository in the AWS account.

What should the company do to restrict the developers' ability to push changes to the main branch directly?

- A. Create an additional policy to include a Deny rule for the GitPush and PutFile action
- B. Include a restriction for the specific repositories in the policy statement with a condition that references the main branch. A Create an additional policy to include a Deny rule for the GitPush and PutFile actions. Include a restriction for the specific repositories in the policy statement with a condition that references the main branch.
- C. Remove the IAM policy, and add an AWSCodeCommitReadOnly managed policy
- D. Add an Allow rule for the GitPush and PutFile actions for the specific repositories in the policy statement with a condition that references the main branch.
- E. Modify the IAM policy. Include a Deny rule for the GitPush and PutFile actions for the specific repositories in the policy statement with a condition that references the main branch.
- F. Create an additional policy to include an Allow rule for the GitPush and PutFile action
- G. Include a restriction for the specific repositories in the policy statement with a condition that references the feature branches.

Answer: A

Explanation:

By default, the AWSCodeCommitPowerUser managed policy allows users to push changes to any branch in any repository in the AWS account. To restrict the developers' ability to push changes to the main branch directly, an additional policy is needed that explicitly denies these actions for the main branch. The Deny rule should be included in a policy statement that targets the specific repositories and includes a condition that references the main branch. The policy statement should look something like this:

```
{
  "Effect": "Deny", "Action": [ "codecommit:GitPush", "codecommit:PutFile"
],
  "Resource": "arn:aws:codecommit:<region>:<account-id>:<repository-name>", "Condition": {
    "StringEqualsIfExists": { "codecommit:References": [ "refs/heads/main"
    ]
  }
}
```

NEW QUESTION 66

A company's production environment uses an AWS CodeDeploy blue/green deployment to deploy an application. The deployment includes Amazon EC2 Auto Scaling groups that launch instances that run Amazon Linux 2.

A working appspec. yml file exists in the code repository and contains the following text.

```
version: 0.0
os: linux
files:
  - source: /
    destination: /var/www/html/application
```

A DevOps engineer needs to ensure that a script downloads and installs a license file onto the instances before the replacement instances start to handle request traffic. The DevOps engineer adds a hooks section to the appspec. yml file.

Which hook should the DevOps engineer use to run the script that downloads and installs the license file?

- A. AfterBlockTraffic
- B. BeforeBlockTraffic
- C. BeforeInstall
- D. Download Bundle

Answer: C

Explanation:

This hook runs before the new application version is installed on the replacement instances. This is the best place to run the script because it ensures that the license file is downloaded and installed before the replacement instances start to handle request traffic. If you use any other hook, you may encounter errors or inconsistencies in your application.

NEW QUESTION 67

A company plans to use Amazon CloudWatch to monitor its Amazon EC2 instances. The company needs to stop EC2 instances when the average of the NetworkPacketsIn metric is less than 5 for at least 3 hours in a 12-hour time window. The company must evaluate the metric every hour. The EC2 instances must continue to run if there is missing data for the NetworkPacketsIn metric during the evaluation period.

A DevOps engineer creates a CloudWatch alarm for the NetworkPacketsIn metric. The DevOps engineer configures a threshold value of 5 and an evaluation period of 1 hour.

Which set of additional actions should the DevOps engineer take to meet these requirements?

- A. Configure the Datapoints to Alarm value to be 3 out of 12. Configure the alarm to treat missing data as breaching the threshold
- B. Add an AWS Systems Manager action to stop the instance when the alarm enters the ALARM state.
- C. Configure the Datapoints to Alarm value to be 3 out of 12. Configure the alarm to treat missing data as not breaching the threshold
- D. Add an EC2 action to stop the instance when the alarm enters the ALARM state.
- E. Configure the Datapoints to Alarm value to be 9 out of 12. Configure the alarm to treat missing data as breaching the threshold
- F. Add an EC2 action to stop the instance when the alarm enters the ALARM state.
- G. Configure the Datapoints to Alarm value to be 9 out of 12. Configure the alarm to treat missing data as not breaching the threshold
- H. Add an AWS Systems Manager action to stop the instance when the alarm enters the ALARM state.

Answer: B

Explanation:

To meet the requirements, the DevOps engineer needs to configure the CloudWatch alarm to stop the EC2 instances when the average of the NetworkPacketsIn metric is less than 5 for at least 3 hours in a 12-hour time window. This means that the alarm should trigger when 3 out of 12 datapoints are below the threshold of 5. The alarm should also treat missing data as not breaching the threshold, so that the EC2 instances continue to run if there is no data for the metric during the evaluation period. The DevOps engineer can add an EC2 action to stop the instance when the alarm enters the ALARM state, which is a built-in action type for CloudWatch alarms.

NEW QUESTION 71

A company is using an AWS CodeBuild project to build and package an application. The packages are copied to a shared Amazon S3 bucket before being deployed across multiple AWS accounts.

The buildspec.yml file contains the following:

```
version: 0.2
phases:
  build:
    commands:
      - go build -o myapp
  post_build:
    commands:
      - aws s3 cp --acl authenticated-read myapp s3://artifacts/
```

The DevOps engineer has noticed that anybody with an AWS account is able to download the artifacts. What steps should the DevOps engineer take to stop this?

- A. Modify the post_build command to use --acl public-read and configure a bucket policy that grants read access to the relevant AWS accounts only.
- B. Configure a default ACL for the S3 bucket that defines the set of authenticated users as the relevant AWS accounts only and grants read-only access.
- C. Create an S3 bucket policy that grants read access to the relevant AWS accounts and denies read access to the principal “*”.
- D. Modify the post_build command to remove --acl authenticated-read and configure a bucket policy that allows read access to the relevant AWS accounts only.

Answer: D

Explanation:

When setting the flag authenticated-read in the command line, the owner gets FULL_CONTROL. The AuthenticatedUsers group (Anyone with an AWS account) gets READ access. Reference: <https://docs.aws.amazon.com/AmazonS3/latest/userguide/acl-overview.html>

NEW QUESTION 74

A company is using AWS to run digital workloads. Each application team in the company has its own AWS account for application hosting. The accounts are consolidated in an organization in AWS Organizations.

The company wants to enforce security standards across the entire organization. To avoid noncompliance because of security misconfiguration, the company has enforced the use of AWS CloudFormation. A production support team can modify resources in the production environment by using the AWS Management Console to troubleshoot and resolve application-related issues.

A DevOps engineer must implement a solution to identify in near real time any AWS service misconfiguration that results in noncompliance. The solution must automatically remediate the issue within 15 minutes of identification. The solution also must track noncompliant resources and events in a centralized dashboard with accurate timestamps.

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

- A. Use CloudFormation drift detection to identify noncompliant resource
- B. Use drift detection events from CloudFormation to invoke an AWS Lambda function for remediation
- C. Configure the Lambda function to publish logs to an Amazon CloudWatch Logs log group
- D. Configure an Amazon CloudWatch dashboard to use the log group for tracking.
- E. Turn on AWS CloudTrail in the AWS account
- F. Analyze CloudTrail logs by using Amazon Athena to identify noncompliant resource
- G. Use AWS Step Functions to track query results on Athena for drift detection and to invoke an AWS Lambda function for remediation
- H. For tracking, set up an Amazon QuickSight dashboard that uses Athena as the data source.
- I. Turn on the configuration recorder in AWS Config in all the AWS accounts to identify noncompliant resource
- J. Enable AWS Security Hub with the ~no-enable-default-standards option in all the AWS account
- K. Set up AWS Config managed rules and custom rule
- L. Set up automatic remediation by using AWS Config conformance pack
- M. For tracking, set up a dashboard on Security Hub in a designated Security Hub administrator account.
- N. Turn on AWS CloudTrail in the AWS account
- O. Analyze CloudTrail logs by using Amazon CloudWatch Logs to identify noncompliant resource
- P. Use CloudWatch Logs filters for drift detection
- Q. Use Amazon EventBridge to invoke the Lambda function for remediation
- R. Stream filtered CloudWatch logs to Amazon OpenSearch Service
- S. Set up a dashboard on OpenSearch Service for tracking.

Answer: C

Explanation:

The best solution is to use AWS Config and AWS Security Hub to identify and remediate noncompliant resources across multiple AWS accounts. AWS Config enables continuous monitoring of the configuration of AWS resources and evaluates them against desired configurations. AWS Config can also automatically remediate noncompliant resources by using conformance packs, which are a collection of AWS Config rules and remediation actions that can be deployed as a single entity. AWS Security Hub provides a comprehensive view of the security posture of AWS accounts and resources. AWS Security Hub can aggregate and normalize the findings from AWS Config and other AWS services, as well as from partner solutions. AWS Security Hub can also be used to create a dashboard for tracking noncompliant resources and events in a centralized location.

The other options are not optimal because they either require more development overhead, do not provide near real time detection and remediation, or do not provide a centralized dashboard for tracking.

Option A is not optimal because CloudFormation drift detection is not a near real time solution. Drift detection has to be manually initiated on each stack or resource, or scheduled using a cron expression. Drift detection also does not provide remediation actions, so a custom Lambda function has to be developed and invoked. CloudWatch Logs and dashboard can be used for tracking, but they do not provide a comprehensive view of the security posture of the AWS accounts and resources.

Option B is not optimal because CloudTrail logs analysis using Athena is not a near real time solution. Athena queries have to be manually run or scheduled using a cron expression. Athena also does not provide remediation actions, so a custom Lambda function has to be developed and invoked. Step Functions can be used to orchestrate the query and remediation workflow, but it adds more complexity and cost. QuickSight dashboard can be used for tracking, but it does not provide a comprehensive view of the security posture of the AWS accounts and resources.

Option D is not optimal because CloudTrail logs analysis using CloudWatch Logs is not a near real time solution. CloudWatch Logs filters have to be manually created or updated for each resource type and configuration change. CloudWatch Logs also does not provide remediation actions, so a custom Lambda function has to be developed and invoked. EventBridge can be used to trigger the Lambda function, but it adds more complexity and cost. OpenSearch Service dashboard can be used for tracking, but it does not provide a comprehensive view of the security posture of the AWS accounts and resources. References:

? AWS Config conformance packs

? Introducing AWS Config conformance packs

? Managing conformance packs across all accounts in your organization

NEW QUESTION 76

A company is implementing an Amazon Elastic Container Service (Amazon ECS) cluster to run its workload. The company architecture will run multiple ECS services on the cluster. The architecture includes an Application Load Balancer on the front end and uses multiple target groups to route traffic.

A DevOps engineer must collect application and access logs. The DevOps engineer then needs to send the logs to an Amazon S3 bucket for near-real-time analysis.

Which combination of steps must the DevOps engineer take to meet these requirements? (Choose three.)

- A. Download the Amazon CloudWatch Logs container instance from AW
- B. Configure this instance as a task
- C. Update the application service definitions to include the logging task.
- D. Install the Amazon CloudWatch Logs agent on the ECS instance
- E. Change the logging driver in the ECS task definition to awslogs.
- F. Use Amazon EventBridge to schedule an AWS Lambda function that will run every 60 seconds and will run the Amazon CloudWatch Logs create-export-task command
- G. Then point the output to the logging S3 bucket.
- H. Activate access logging on the AL
- I. Then point the ALB directly to the logging S3 bucket.
- J. Activate access logging on the target groups that the ECS services use
- K. Then send the logs directly to the logging S3 bucket.
- L. Create an Amazon Kinesis Data Firehose delivery stream that has a destination of the logging S3 bucket
- M. Then create an Amazon CloudWatch Logs subscription filter for Kinesis Data Firehose.

Answer: BDF

Explanation:

<https://docs.aws.amazon.com/AmazonECS/latest/developerguide/ecs-logging-monitoring.html>

NEW QUESTION 81

A company has developed an AWS Lambda function that handles orders received through an API. The company is using AWS CodeDeploy to deploy the Lambda function as the final stage of a CI/CD pipeline.

A DevOps engineer has noticed there are intermittent failures of the ordering API for a few seconds after deployment. After some investigation the DevOps engineer believes the failures are due to database changes not having fully propagated before the Lambda function is invoked

How should the DevOps engineer overcome this?

- A. Add a BeforeAllowTraffic hook to the AppSpec file that tests and waits for any necessary database changes before traffic can flow to the new version of the Lambda function.
- B. Add an AfterAllowTraffic hook to the AppSpec file that forces traffic to wait for any pending database changes before allowing the new version of the Lambda function to respond.
- C. Add a BeforeAllowTraffic hook to the AppSpec file that tests and waits for any necessary database changes before deploying the new version of the Lambda function.
- D. Add a validateService hook to the AppSpec file that inspects incoming traffic and rejects the payload if dependent services such as the database are not yet ready.

Answer: A

Explanation:

<https://docs.aws.amazon.com/codedeploy/latest/userguide/reference-appspec-file-structure-hooks.html#appspec-hooks-lambda>

NEW QUESTION 82

A company needs to implement failover for its application. The application includes an Amazon CloudFront distribution and a public Application Load Balancer (ALB) in an AWS Region. The company has configured the ALB as the default origin for the distribution.

After some recent application outages, the company wants a zero-second RTO. The company deploys the application to a secondary Region in a warm standby configuration. A DevOps engineer needs to automate the failover of the application to the secondary Region so that HTTP GET requests meet the desired RTO.

Which solution will meet these requirements?

- A. Create a second CloudFront distribution that has the secondary ALB as the default origin
- B. Create Amazon Route 53 alias records that have a failover policy and Evaluate Target Health set to Yes for both CloudFront distributions
- C. Update the application to use the new record set.
- D. Create a new origin on the distribution for the secondary AL
- E. Create a new origin group
- F. Set the original ALB as the primary origin
- G. Configure the origin group to fail over for HTTP 5xx status code
- H. Update the default behavior to use the origin group.
- I. Create Amazon Route 53 alias records that have a failover policy and Evaluate TargetHealth set to Yes for both ALB
- J. Set the TTL of both records to 0. Update the distribution's origin to use the new record set.
- K. Create a CloudFront function that detects HTTP 5xx status code
- L. Configure the function to return a 307 Temporary Redirect error response to the secondary ALB if the function detects 5xx status code
- M. Update the distribution's default behavior to send origin responses to the function.

Answer: B

Explanation:

The best solution to implement failover for the application is to use CloudFront origin groups. Origin groups allow CloudFront to automatically switch to a secondary origin when the primary origin is unavailable or returns specific HTTP status codes that indicate a failure¹. This way, CloudFront can serve the requests from the secondary ALB in the secondary Region without any delay or redirection. To set up origin groups, the DevOps engineer needs to create a new origin on the distribution for the secondary ALB, create a new origin group with the original ALB as the primary origin and the secondary ALB as the secondary origin, and configure the origin group to fail over for HTTP 5xx status codes. Then, the DevOps engineer needs to update the default behavior to use the origin group instead of the single origin².

The other options are not as effective or efficient as the solution in option B. Option A is not suitable because creating a second CloudFront distribution will increase the complexity and cost of the application. Moreover, using Route 53 alias records with a failover policy will introduce some delay in detecting and switching to the secondary CloudFront distribution, which may not meet the zero-second RTO requirement. Option C is not feasible because CloudFront does not support using Route 53 alias records as origins. Option D is not advisable because using a CloudFront function to redirect the requests to the secondary ALB will add an extra round-trip and latency to the failover process, which may also not meet the zero-second RTO requirement.

References:

? 1: Optimizing high availability with CloudFront origin failover - Amazon CloudFront

? 2: Creating an origin group - Amazon CloudFront

? 3: Values That You Specify When You Create or Update a Web Distribution - Amazon CloudFront

NEW QUESTION 87

A company uses AWS Storage Gateway in file gateway mode in front of an Amazon S3 bucket that is used by multiple resources. In the morning when business begins, users do not see the objects processed by a third party the previous evening. When a DevOps engineer looks directly at the S3 bucket, the data is there, but it is missing in Storage Gateway.

Which solution ensures that all the updated third-party files are available in the morning?

A. Configure a nightly Amazon EventBridge event to invoke an AWS Lambda function to run the RefreshCache command for Storage Gateway.

B. Instruct the third party to put data into the S3 bucket using AWS Transfer for SFTP.

C. Modify Storage Gateway to run in volume gateway mode.

D. Use S3 Same-Region Replication to replicate any changes made directly in the S3 bucket to Storage Gateway.

Answer: A

Explanation:

https://docs.aws.amazon.com/storagegateway/latest/APIReference/API_RefreshCache.html " It only updates the cached inventory to reflect changes in the inventory of the objects in the S3 bucket. This operation is only supported in the S3 File Gateway types."

NEW QUESTION 89

A company is divided into teams. Each team has an AWS account and all the accounts are in an organization in AWS Organizations. Each team must retain full administrative rights to its AWS account. Each team also must be allowed to access only AWS services that the company approves for use. AWS services must gain approval through a request and approval process.

How should a DevOps engineer configure the accounts to meet these requirements?

A. Use AWS CloudFormation StackSets to provision IAM policies in each account to deny access to restricted AWS services.

B. In each account, configure AWS Config rules that ensure that the policies are attached to IAM principals in the account.

C. Use AWS Control Tower to provision the accounts into OUs within the organization. Configure AWS Control Tower to enable AWS IAM Identity Center (AWS Single Sign-On). Configure IAM Identity Center to provide administrative access. Include deny policies on user roles for restricted AWS services.

D. Place all the accounts under a new top-level OU within the organization. Create an SCP that denies access to restricted AWS services. Attach the SCP to the OU.

E. Create an SCP that allows access to only approved AWS services.

F. Attach the SCP to the root OU of the organization.

G. Remove the FullAWSAccess SCP from the root OU of the organization.

Answer: C

Explanation:

<https://docs.aws.amazon.com/vpc/latest/userguide/managed-prefix-lists.html> A managed prefix list is a set of one or more CIDR blocks. You can use prefix lists to make it easier to configure and maintain your security groups and route tables. <https://docs.aws.amazon.com/vpc/latest/userguide/sharing-managed-prefix-lists.html> With AWS Resource Access Manager (AWS RAM), the owner of a prefix list can share a prefix list with the following: Specific AWS accounts inside or outside of its organization in AWS Organizations An organizational unit inside its organization in AWS Organizations An entire organization in AWS Organizations

NEW QUESTION 93

A business has an application that consists of five independent AWS Lambda functions.

The DevOps engineer has built a CI/CD pipeline using AWS CodePipeline and AWS CodeBuild that builds tests, packages, and deploys each Lambda function in sequence. The pipeline uses an Amazon EventBridge rule to ensure the pipeline starts as quickly as possible after a change is made to the application source code.

After working with the pipeline for a few months, the DevOps engineer has noticed the pipeline takes too long to complete.

What should the DevOps engineer implement to BEST improve the speed of the pipeline?

A. Modify the CodeBuild projects within the pipeline to use a compute type with more available network throughput.

B. Create a custom CodeBuild execution environment that includes a symmetric multiprocessing configuration to run the builds in parallel.

C. Modify the CodePipeline configuration to run actions for each Lambda function in parallel by specifying the same runOrder.

D. Modify each CodeBuild project to run within a VPC and use dedicated instances to increase throughput.

Answer: C

Explanation:

<https://docs.aws.amazon.com/codepipeline/latest/userguide/reference-pipeline-structure.html>

AWS doc: "To specify parallel actions, use the same integer for each action you want to run in parallel. For example, if you want three actions to run in sequence in a stage, you would give the first action the runOrder value of 1, the second action the runOrder value of 2, and the third the runOrder value of 3. However, if you want the second and third actions to run in parallel, you would give the first action the runOrder value of 1 and both the second and third actions the runOrder value of 2."

NEW QUESTION 95

A global company manages multiple AWS accounts by using AWS Control Tower. The company hosts internal applications and public applications.

Each application team in the company has its own AWS account for application hosting. The accounts are consolidated in an organization in AWS Organizations.

One of the AWS Control Tower member accounts serves as a centralized DevOps account with CI/CD pipelines that application teams use to deploy applications to their respective target AWS accounts. An IAM role for deployment exists in the centralized DevOps account.

An application team is attempting to deploy its application to an Amazon Elastic Kubernetes Service (Amazon EKS) cluster in an application AWS account. An

1AM role for deployment exists in the application AWS account. The deployment is through an AWS CodeBuild project that is set up in the centralized DevOps account. The CodeBuild project uses an 1AM service role for CodeBuild. The deployment is failing with an Unauthorized error during attempts to connect to the cross-account EKS cluster from CodeBuild.

Which solution will resolve this error?

- A. Configure the application account's deployment 1AM role to have a trust relationship with the centralized DevOps account
- B. Configure the trust relationship to allow the sts:AssumeRole action
- C. Configure the application account's deployment 1AM role to have the required access to the EKS cluster
- D. Configure the EKS cluster aws-auth ConfigMap to map the role to the appropriate system permissions.
- E. Configure the centralized DevOps account's deployment 1AM role to have a trust relationship with the application account
- F. Configure the trust relationship to allow the sts:AssumeRole action
- G. Configure the centralized DevOps account's deployment 1AM role to allow the required access to CodeBuild.
- H. Configure the centralized DevOps account's deployment 1AM role to have a trust relationship with the application account
- I. Configure the trust relationship to allow the sts:AssumeRoleWithSAML action
- J. Configure the centralized DevOps account's deployment 1AM role to allow the required access to CodeBuild.
- K. Configure the application account's deployment 1AM role to have a trust relationship with the AWS Control Tower management account
- L. Configure the trust relationship to allow the sts:AssumeRole action
- M. Configure the application account's deployment 1AM role to have the required access to the EKS cluster
- N. Configure the EKS cluster aws-auth ConfigMap to map the role to the appropriate system permissions.

Answer: A

Explanation:

In the source AWS account, the IAM role used by the CI/CD pipeline should have permissions to access the source code repository, build artifacts, and any other resources required for the build process. In the destination AWS accounts, the IAM role used for deployment should have permissions to access the AWS resources required for deploying the application, such as EC2 instances, RDS databases, S3 buckets, etc. The exact permissions required will depend on the specific resources being used by the application. The IAM role used for deployment in the destination accounts should also have permissions to assume the IAM role for deployment in the centralized DevOps account. This is typically done using an IAM role trust policy that allows the destination account to assume the DevOps account role.

NEW QUESTION 97

A company uses AWS Secrets Manager to store a set of sensitive API keys that an AWS Lambda function uses. When the Lambda function is invoked, the Lambda function retrieves the API keys and makes an API call to an external service. The Secrets Manager secret is encrypted with the default AWS Key Management Service (AWS KMS) key.

A DevOps engineer needs to update the infrastructure to ensure that only the Lambda function's execution role can access the values in Secrets Manager. The solution must apply the principle of least privilege.

Which combination of steps will meet these requirements? (Select TWO.)

- A. Update the default KMS key for Secrets Manager to allow only the Lambda function's execution role to decrypt.
- B. Create a KMS customer managed key that trusts Secrets Manager and allows the Lambda function's execution role to decrypt
- C. Update Secrets Manager to use the new customer managed key.
- D. Create a KMS customer managed key that trusts Secrets Manager and allows the account's :root principal to decrypt
- E. Update Secrets Manager to use the new customer managed key.
- F. Ensure that the Lambda function's execution role has the KMS permissions scoped on the resource level
- G. Configure the permissions so that the KMS key can encrypt the Secrets Manager secret.
- H. Remove all KMS permissions from the Lambda function's execution role.

Answer: BD

Explanation:

The requirement is to update the infrastructure to ensure that only the Lambda function's execution role can access the values in Secrets Manager. The solution must apply the principle of least privilege, which means granting the minimum permissions necessary to perform a task.

To do this, the DevOps engineer needs to use the following steps:

? Create a KMS customer managed key that trusts Secrets Manager and allows the Lambda function's execution role to decrypt. A customer managed key is a symmetric encryption key that is fully managed by the customer. The customer can define the key policy, which specifies who can use and manage the key. By creating a customer managed key, the DevOps engineer can restrict the decryption permission to only the Lambda function's execution role, and prevent other principals from accessing the secret values. The customer managed key also needs to trust Secrets Manager, which means allowing Secrets Manager to use the key to encrypt and decrypt secrets on behalf of the customer.

? Update Secrets Manager to use the new customer managed key. Secrets Manager allows customers to choose which KMS key to use for encrypting each secret. By default, Secrets Manager uses the default KMS key for Secrets Manager, which is a service-managed key that is shared by all customers in the same AWS Region. By updating Secrets Manager to use the new customer managed key, the DevOps engineer can ensure that only the Lambda function's execution role can decrypt the secret values using that key.

? Ensure that the Lambda function's execution role has the KMS permissions scoped on the resource level. The Lambda function's execution role is an IAM role that grants permissions to the Lambda function to access AWS services and resources. The role needs to have KMS permissions to use the customer managed key for decryption. However, to apply the principle of least privilege, the role should have the permissions scoped on the resource level, which means specifying the ARN of the customer managed key as a condition in the IAM policy statement. This way, the role can only use that specific key and not any other KMS keys in the account.

NEW QUESTION 101

An online retail company based in the United States plans to expand its operations to Europe and Asia in the next six months. Its product currently runs on Amazon EC2 instances behind an Application Load Balancer. The instances run in an Amazon EC2 Auto Scaling group across multiple Availability Zones. All data is stored in an Amazon Aurora database instance.

When the product is deployed in multiple regions, the company wants a single product catalog across all regions, but for compliance purposes, its customer information and purchases must be kept in each region.

How should the company meet these requirements with the LEAST amount of application changes?

- A. Use Amazon Redshift for the product catalog and Amazon DynamoDB tables for the customer information and purchases.
- B. Use Amazon DynamoDB global tables for the product catalog and regional tables for the customer information and purchases.
- C. Use Aurora with read replicas for the product catalog and additional local Aurora instances in each region for the customer information and purchases.
- D. Use Aurora for the product catalog and Amazon DynamoDB global tables for the customer information and purchases.

Answer: C

NEW QUESTION 103

A development team wants to use AWS CloudFormation stacks to deploy an application. However, the developer IAM role does not have the required permissions to provision the resources that are specified in the AWS CloudFormation template. A DevOps engineer needs to implement a solution that allows the developers to deploy the stacks. The solution must follow the principle of least privilege.

Which solution will meet these requirements?

- A. Create an IAM policy that allows the developers to provision the required resource
- B. Attach the policy to the developer IAM role.
- C. Create an IAM policy that allows full access to AWS CloudFormatio
- D. Attach the policy to the developer IAM role.
- E. Create an AWS CloudFormation service role that has the required permission
- F. Grant the developer IAM role a cloudformation:* actio
- G. Use the new service role during stack deployments.
- H. Create an AWS CloudFormation service role that has the required permission
- I. Grant the developer IAM role the iam:PassRole permissio
- J. Use the new service role during stack deployments.

Answer: D

Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/using-iam-servicerole.html>

NEW QUESTION 106

A company has a single AWS account that runs hundreds of Amazon EC2 instances in a single AWS Region. New EC2 instances are launched and terminated each hour in the account. The account also includes existing EC2 instances that have been running for longer than a week.

The company's security policy requires all running EC2 instances to use an EC2 instance profile. If an EC2 instance does not have an instance profile attached, the EC2 instance must use a default instance profile that has no IAM permissions assigned.

A DevOps engineer reviews the account and discovers EC2 instances that are running without an instance profile. During the review, the DevOps engineer also observes that new EC2 instances are being launched without an instance profile.

Which solution will ensure that an instance profile is attached to all existing and future EC2 instances in the Region?

- A. Configure an Amazon EventBridge rule that reacts to EC2 RunInstances API call
- B. Configure the rule to invoke an AWS Lambda function to attach the default instance profile to the EC2 instances.
- C. Configure the ec2-instance-profile-attached AWS Config managed rule with a trigger type of configuration change
- D. Configure an automatic remediation action that invokes an AWS Systems Manager Automation runbook to attach the default instance profile to the EC2 instances.
- E. Configure an Amazon EventBridge rule that reacts to EC2 StartInstances API call
- F. Configure the rule to invoke an AWS Systems Manager Automation runbook to attach the default instance profile to the EC2 instances.
- G. Configure the iam-role-managed-policy-check AWS Config managed rule with a trigger type of configuration change
- H. Configure an automatic remediation action that invokes an AWS Lambda function to attach the default instance profile to the EC2 instances.

Answer: B

Explanation:

<https://docs.aws.amazon.com/config/latest/developerguide/ec2-instance-profile-attached.html>

NEW QUESTION 111

An ecommerce company has chosen AWS to host its new platform. The company's DevOps team has started building an AWS Control Tower landing zone. The DevOps team has set the identity store within AWS IAM Identity Center (AWS Single Sign-On) to external identity provider (IdP) and has configured SAML 2.0.

The DevOps team wants a robust permission model that applies the principle of least privilege. The model must allow the team to build and manage only the team's own resources.

Which combination of steps will meet these requirements? (Choose three.)

- A. Create IAM policies that include the required permission
- B. Include the aws:PrincipalTag condition key.
- C. Create permission set
- D. Attach an inline policy that includes the required permissions and uses the aws:PrincipalTag condition key to scope the permissions.
- E. Create a group in the Id
- F. Place users in the grou
- G. Assign the group to accounts and the permission sets in IAM Identity Center.
- H. Create a group in the Id
- I. Place users in the grou
- J. Assign the group to OUs and IAM policies.
- K. Enable attributes for access control in IAM Identity Cente
- L. Apply tags to user
- M. Map the tags as key-value pairs.
- N. Enable attributes for access control in IAM Identity Cente
- O. Map attributes from the IdP as key-value pairs.

Answer: BCF

Explanation:

Using the principalTag in the Permission Set inline policy a logged in user belonging to a specific AD group in the IDP can be permitted access to perform operations on certain resources if their group matches the group used in the PrincipleTag. Basically you are narrowing the scope of privileges assigned via Permission policies conditionally based on whether the logged in user belongs to a specific AD Group in IDP. The mapping of the AD group to the request attributes can be done using SSO attributes where we can pass other attributes like the SAML token as well.

<https://docs.aws.amazon.com/singlesignon/latest/userguide/abac.html>

NEW QUESTION 112

A DevOps engineer has implemented a CI/CO pipeline to deploy an AWS CloudFormation template that provisions a web application. The web application consists of an Application Load Balancer (ALB) a target group, a launch template that uses an Amazon Linux 2 AMI an Auto Scaling group of Amazon EC2 instances, a security group and an Amazon RDS for MySQL database. The launch template includes user data that specifies a script to install and start the application.

The initial deployment of the application was successful. The DevOps engineer made changes to update the version of the application with the user data. The CI/CD pipeline has deployed a new version of the template. However, the health checks on the ALB are now failing. The health checks have marked all targets as unhealthy.

During investigation the DevOps engineer notices that the CloudFormation stack has a status of UPDATE_COMPLETE. However, when the DevOps engineer connects to one of the EC2 instances and checks /var/log/messages, the DevOps engineer notices that the Apache web server failed to start successfully because of a configuration error.

How can the DevOps engineer ensure that the CloudFormation deployment will fail if the user data fails to successfully finish running?

- A. Use the cfn-signal helper script to signal success or failure to CloudFormation. Use the WaitOnResourceSignals update policy within the CloudFormation template. Set an appropriate timeout for the update policy.
- B. Create an Amazon CloudWatch alarm for the UnhealthyHostCount metric.
- C. Include an appropriate alarm threshold for the target group. Create an Amazon Simple Notification Service (Amazon SNS) topic as the target to signal success or failure to CloudFormation.
- D. Create a lifecycle hook on the Auto Scaling group by using the AWS AutoScaling LifecycleHook resource. Create an Amazon Simple Notification Service (Amazon SNS) topic as the target to signal success or failure to CloudFormation. Set an appropriate timeout on the lifecycle hook.
- E. Use the Amazon CloudWatch agent to stream the cloud-init logs. Create a subscription filter that includes an AWS Lambda function with an appropriate invocation timeout. Configure the Lambda function to use the SignalResource API operation to signal success or failure to CloudFormation.

Answer: A

Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws-attribute-updatepolicy.html>

NEW QUESTION 116

A company uses an organization in AWS Organizations that has all features enabled. The company uses AWS Backup in a primary account and uses an AWS Key Management Service (AWS KMS) key to encrypt the backups.

The company needs to automate a cross-account backup of the resources that AWS Backup backs up in the primary account. The company configures cross-account backup in the Organizations management account. The company creates a new AWS account in the organization and configures an AWS Backup backup vault in the new account. The company creates a KMS key in the new account to encrypt the backups. Finally, the company configures a new backup plan in the primary account. The destination for the new backup plan is the backup vault in the new account.

When the AWS Backup job in the primary account is invoked, the job creates backups in the primary account. However, the backups are not copied to the new account's backup vault.

Which combination of steps must the company take so that backups can be copied to the new account's backup vault? (Select TWO.)

- A. Edit the backup vault access policy in the new account to allow access to the primary account.
- B. Edit the backup vault access policy in the primary account to allow access to the new account.
- C. Edit the backup vault access policy in the primary account to allow access to the KMS key in the new account.
- D. Edit the key policy of the KMS key in the primary account to share the key with the new account.
- E. Edit the key policy of the KMS key in the new account to share the key with the primary account.

Answer: AE

Explanation:

To enable cross-account backup, the company needs to grant permissions to both the backup vault and the KMS key in the destination account. The backup vault access policy in the destination account must allow the primary account to copy backups into the vault. The key policy of the KMS key in the destination account must allow the primary account to use the key to encrypt and decrypt the backups. These steps are described in the AWS documentation¹². Therefore, the correct answer is A and E.

References:

? 1: Creating backup copies across AWS accounts - AWS Backup

? 2: Using AWS Backup with AWS Organizations - AWS Backup

NEW QUESTION 117

A rapidly growing company wants to scale for developer demand for AWS development environments. Development environments are created manually in the AWS Management Console. The networking team uses AWS CloudFormation to manage the networking infrastructure, exporting stack output values for the Amazon VPC and all subnets. The development environments have common standards, such as Application Load Balancers, Amazon EC2 Auto Scaling groups, security groups, and Amazon DynamoDB tables.

To keep up with demand, the DevOps engineer wants to automate the creation of development environments. Because the infrastructure required to support the application is expected to grow, there must be a way to easily update the deployed infrastructure. CloudFormation will be used to create a template for the development environments.

Which approach will meet these requirements and quickly provide consistent AWS environments for developers?

- A. Use Fn::ImportValue intrinsic functions in the Resources section of the template to retrieve Virtual Private Cloud (VPC) and subnet value.
- B. Use CloudFormation StackSets for the development environments, using the Count input parameter to indicate the number of environments needed.
- C. Use the UpdateStackSet command to update existing development environments.
- D. Use nested stacks to define common infrastructure component.
- E. To access the exported values, use TemplateURL to reference the networking team's template.
- F. To retrieve Virtual Private Cloud (VPC) and subnet values, use Fn::ImportValue intrinsic functions in the Parameters section of the root template.
- G. Use the CreateChangeSet and ExecuteChangeSet commands to update existing development environments.
- H. Use nested stacks to define common infrastructure component.
- I. Use Fn::ImportValue intrinsic functions with the resources of the nested stack to retrieve Virtual Private Cloud (VPC) and subnet value.
- J. Use the CreateChangeSet and ExecuteChangeSet commands to update existing development environments.
- K. Use Fn::ImportValue intrinsic functions in the Parameters section of the root template to retrieve Virtual Private Cloud (VPC) and subnet value.
- L. Define the development resources in the order they need to be created in the CloudFormation nested stack.
- M. Use the CreateChangeSet
- N. and ExecuteChangeSet commands to update existing development environments.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-importvalue.html>

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-importvalue.html> CF of network exports the VPC, subnet or needed information CF of application imports the above information to its stack and UpdateChangeSet/ ExecuteChangeSet

NEW QUESTION 120

A company hosts a security auditing application in an AWS account. The auditing application uses an IAM role to access other AWS accounts. All the accounts are in the same organization in AWS Organizations.

A recent security audit revealed that users in the audited AWS accounts could modify or delete the auditing application's IAM role. The company needs to prevent any modification to the auditing application's IAM role by any entity other than a trusted administrator IAM role.

Which solution will meet these requirements?

- A. Create an SCP that includes a Deny statement for changes to the auditing application's IAM rol
- B. Include a condition that allows the trusted administrator IAM role to make change
- C. Attach the SCP to the root of the organization.
- D. Create an SCP that includes an Allow statement for changes to the auditing application's IAM role by the trusted administrator IAM rol
- E. Include a Deny statement for changes by all other IAM principal
- F. Attach the SCP to the IAM service in each AWS account where the auditing application has an IAM role.
- G. Create an IAM permissions boundary that includes a Deny statement for changes to the auditing application's IAM rol
- H. Include a condition that allows the trusted administrator IAM role to make change
- I. Attach the permissions boundary to the audited AWS accounts.
- J. Create an IAM permissions boundary that includes a Deny statement for changes to the auditing application's IAM rol
- K. Include a condition that allows the trusted administrator IAM role to make change
- L. Attach the permissions boundary to the auditing application's IAM role in the AWS accounts.

Answer: A

Explanation:

https://docs.aws.amazon.com/organizations/latest/userguide/orgs_manage_policies_scps.html?icmpid=docs_orgs_console

SCPs (Service Control Policies) are the best way to restrict permissions at the organizational level, which in this case would be used to restrict modifications to the IAM role used by the auditing application, while still allowing trusted administrators to make changes to it. Options C and D are not as effective because IAM permission boundaries are applied to IAM entities (users, groups, and roles), not the account itself, and must be applied to all IAM entities in the account.

NEW QUESTION 122

A company has a guideline that every Amazon EC2 instance must be launched from an AMI that the company's security team produces Every month the security team sends an email message with the latest approved AMIs to all the development teams.

The development teams use AWS CloudFormation to deploy their applications. When developers launch a new service they have to search their email for the latest AMIs that the security department sent. A DevOps engineer wants to automate the process that the security team uses to provide the AMI IDs to the development teams.

What is the MOST scalable solution that meets these requirements?

- A. Direct the security team to use CloudFormation to create new versions of the AMIs and to list! the AMI ARNs in an encrypted Amazon S3 object as part of the stack's Outputs Section Instruct the developers to use a cross-stack reference to load the encrypted S3 object and obtain the most recent AMI ARNs.
- B. Direct the security team to use a CloudFormation stack to create an AWS CodePipeline pipeline that builds new AMIs and places the latest AMI ARNs in an encrypted Amazon S3 object as part of the pipeline output Instruct the developers to use a cross-stack reference within their own CloudFormation template to obtain the S3 object location and the most recent AMI ARNs.
- C. Direct the security team to use Amazon EC2 Image Builder to create new AMIs and to place the AMI ARNs as parameters in AWS Systems Manager Parameter Store Instruct the developers to specify a parameter of type SSM in their CloudFormation stack to obtain the most recent AMI ARNs from Parameter Store.
- D. Direct the security team to use Amazon EC2 Image Builder to create new AMIs and to create an Amazon Simple Notification Service (Amazon SNS) topic so that every development team can receive notification
- E. When the development teams receive a notification instruct them to write an AWS Lambda function that will update their CloudFormation stack with the most recent AMI ARNs.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/dynamic-references.html>

NEW QUESTION 123

A company has its AWS accounts in an organization in AWS Organizations. AWS Config is manually configured in each AWS account. The company needs to implement a solution to centrally configure AWS Config for all accounts in the organization The solution also must record resource changes to a central account.

Which combination of actions should a DevOps engineer perform to meet these requirements? (Choose two.)

- A. Configure a delegated administrator account for AWS Confi
- B. Enable trusted access for AWS Config in the organization.
- C. Configure a delegated administrator account for AWS Confi
- D. Create a service-linked role for AWS Config in the organization's management account.
- E. Create an AWS CloudFormation template to create an AWS Config aggregato
- F. Configure a CloudFormation stack set to deploy the template to all accounts in the organization.
- G. Create an AWS Config organization aggregator in the organization's management accoun
- H. Configure data collection from all AWS accounts in the organization and from all AWS Regions.
- I. Create an AWS Config organization aggregator in the delegated administrator accoun
- J. Configure data collection from all AWS accounts in the organization and from all AWS Regions.

Answer: AE

Explanation:

<https://aws.amazon.com/blogs/mt/org-aggregator-delegated-admin/> <https://docs.aws.amazon.com/organizations/latest/userguide/services-that-can-integrate-config.html>

NEW QUESTION 126

A company that runs many workloads on AWS has an Amazon EBS spend that has increased over time. The DevOps team notices there are many unattached EBS volumes. Although there are workloads where volumes are detached, volumes over 14 days old are stale and no longer needed. A DevOps engineer has been tasked with creating automation that deletes unattached EBS volumes that have been unattached for 14 days. Which solution will accomplish this?

- A. Configure the AWS Config ec2-volume-inuse-check managed rule with a configuration changes trigger type and an Amazon EC2 volume resource target
- B. Create a new Amazon CloudWatch Events rule scheduled to execute an AWS Lambda function in 14 days to delete the specified EBS volume.
- C. Use Amazon EC2 and Amazon Data Lifecycle Manager to configure a volume lifecycle policy
- D. Set the interval period for unattached EBS volumes to 14 days and set the retention rule to delete
- E. Set the policy target volumes as *.
- F. Create an Amazon CloudWatch Events rule to execute an AWS Lambda function daily
- G. The Lambda function should find unattached EBS volumes and tag them with the current date, and delete unattached volumes that have tags with dates that are more than 14 days old.
- H. Use AWS Trusted Advisor to detect EBS volumes that have been detached for more than 14 days
- I. Execute an AWS Lambda function that creates a snapshot and then deletes the EBS volume.

Answer: C

Explanation:

The requirement is to create automation that deletes unattached EBS volumes that have been unattached for 14 days. To do this, the DevOps engineer needs to use the following steps:

? Create an Amazon CloudWatch Events rule to execute an AWS Lambda function

daily. CloudWatch Events is a service that enables event-driven architectures by delivering events from various sources to targets. Lambda is a service that lets you

run code without provisioning or managing servers. By creating a CloudWatch Events rule that executes a Lambda function daily, the DevOps engineer can schedule a recurring task to check and delete unattached EBS volumes.

? The Lambda function should find unattached EBS volumes and tag them with the

current date, and delete unattached volumes that have tags with dates that are more than 14 days old. The Lambda function can use the EC2 API to list and filter unattached EBS volumes based on their state and tags. The function can then tag each unattached volume with the current date using the create-tags command. The function can also compare the tag value with the current date and delete any unattached volume that has been tagged more than 14 days ago using the delete-volume command.

NEW QUESTION 130

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