Exam Questions AWS-Certified-DevOps-Engineer-Professional

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 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 3
A DevOps engineer is building an application that uses an AWS Lambda function to query an Amazon Aurora MySQL DB cluster. The Lambda function performs only read queries. Amazon EventBridge events invoke the Lambda function.
As more events invoke the Lambda function each second, the database's latency increases and the database's throughput decreases. The DevOps engineer needs to improve the performance of the application.
Which combination of steps will meet these requirements? (Select THREE.)

A. Use Amazon RDS Proxy to create a prox
B. Connect the proxy to the Aurora cluster reader endpoin
C. Set a maximum connections percentage on the proxy.
D. Implement database connection pooling inside the Lambda cod
E. Set a maximum number of connections on the database connection pool.
F. Implement the database connection opening outside the Lambda event handler code.
G. Implement the database connection opening and closing inside the Lambda event handler code.
H. Connect to the proxy endpoint from the Lambda function.
I. Connect to the Aurora cluster endpoint from the Lambda function.

Answer: ACE

Explanation:
To improve the performance of the application, the DevOps engineer should use Amazon RDS Proxy, implement the database connection opening outside the Lambda event handler code, and connect to the proxy endpoint from the Lambda function. References:
? Amazon RDS Proxy is a fully managed, highly available database proxy for Amazon Relational Database Service (RDS) that makes applications more scalable, more resilient to database failures, and more secure1. By using Amazon RDS Proxy, the DevOps engineer can reduce the overhead of opening and closing connections to the database, which can improve latency and throughput2.
? The DevOps engineer should connect the proxy to the Aurora cluster reader
endpoint, which allows read-only connections to one of the Aurora Replicas in the DB cluster3. This can help balance the load across multiple read replicas and improve performance for read-intensive workloads4.
? The DevOps engineer should implement the database connection opening outside the Lambda event handler code, which means using a global variable to store the database connection object5. This can enable connection reuse across multiple invocations of the Lambda function, which can reduce latency and improve performance.
? The DevOps engineer should connect to the proxy endpoint from the Lambda function, which is a unique URL that represents the proxy. This can allow the Lambda function to access the database through the proxy, which can provide benefits such as connection pooling, load balancing, failover handling, and enhanced security.
? The other options are incorrect because:

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 grou
B. Then place ascript into the application revision that calls the metadata service and the EC2 API to identify which deployment group the instance is part o
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 o
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 environmen
I. Then place a script into the application revision that checks this environment variable to identify which deployment group the instance is part o
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 maintenanc
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 windo
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 thatregisters 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 a single AWS account lo test applications on Amazon EC2 instances. The company has turned on AWS Config in the AWS account and has activated the restricted- ssh AWS Config managed rule.
The company needs an automated monitoring solution that will provide a customized notification in real time if any security group in the account is not compliant with the restricted-ssh rule. The customized notification must contain the name and ID of the noncompliant security group.
A DevOps engineer creates an Amazon Simple Notification Service (Amazon SNS) topic in the account and subscribes the appropriate personnel to the topic.
What should me DevOps engineer do next to meet these requirements?

A. Create an Amazon EventBridge rule that matches an AWS Config evaluation result of NON_COMPLIANT tor the restricted-ssh rul
B. Configure an input transformer for the EventBridge rule Configure the EventBridge rule to publish a notification to the SNS topic.
C. Configure AWS Config to send all evaluation results for the restricted-ssh rule to the SNS topi
D. Configure a filter policy on the SNS topic to send only notifications that contain the text of NON_COMPLIANT in the notification to subscribers.
E. Create an Amazon EventBridge rule that matches an AWS Config evaluation result of NON_COMPLIANT for the restricted-ssh rule Configure the EventBridge rule to invoke AWS Systems Manager Run Command on the SNS topic to customize a notification and to publish the notification to the SNS topic
F. Create an Amazon EventBridge rule that matches all AWS Config evaluation results of NON_COMPLIANT Configure an input transformer for the restricted-ssh rule Configure the EventBridge rule to publish a notification to the SNS topic.

Answer: A

Explanation:
Create an Amazon EventBridge (Amazon CloudWatch Events) rule that matches an AWS Config evaluation result of NON_COMPLIANT for the restricted-ssh rule. Configure an input transformer for the EventBridge (CloudWatch Events) rule. Configure the EventBridge (CloudWatch Events) rule to publish a notification to the SNS topic. This approach uses Amazon EventBridge (previously known as Amazon CloudWatch Events) to filter AWS Config evaluation results based on the restricted-ssh rule and its compliance status (NON_COMPLIANT). An input transformer can be used to customize the information contained in the notification, such as the name and ID of the noncompliant security group. The EventBridge (CloudWatch Events) rule can then be configured to publish a notification to the SNS topic, which will notify the appropriate personnel in real-time.

NEW QUESTION 8
A company is building a new pipeline by using AWS CodePipeline and AWS CodeBuild in a build account. The pipeline consists of two stages. The first stage is a CodeBuild job to build and package an AWS Lambda function. The second stage consists of deployment actions that operate on two different AWS accounts a development environment account and a production environment account. The deployment stages use the AWS Cloud Format ion action that CodePipeline invokes to deploy the infrastructure that the Lambda function requires.

A DevOps engineer creates the CodePipeline pipeline and configures the pipeline to encrypt build artifacts by using the AWS Key Management Service (AWS KMS) AWS managed key for Amazon S3 (the aws/s3 key). The artifacts are stored in an S3 bucket When the pipeline runs, the Cloud Formation actions fail with an access denied error.
Which combination of actions must the DevOps engineer perform to resolve this error? (Select TWO.)

A. Create an S3 bucket in each AWS account for the artifacts Allow the pipeline to write to the S3 bucket
B. Create a CodePipeline S3 action to copy the artifacts to the S3 bucket in each AWS account Update the CloudFormation actions to reference the artifacts S3 bucket in the production account.
C. Create a customer managed KMS key Configure the KMS key policy to allow the IAM roles used by the CloudFormation action to perform decrypt operations Modify the pipeline to use the customer managed KMS key to encrypt artifacts.
D. Create an AWS managed KMS key Configure the KMS key policy to allow the development account and the production account to perform decrypt operation
E. Modify the pipeline to use the KMS key to encrypt artifacts.
F. In the development account and in the production account create an IAM role for CodePipelin
G. Configure the roles with permissions to perform CloudFormation operations and with permissions to retrieve and decrypt objects from the artifacts S3 bucke
H. In the CodePipeline account configure the CodePipeline CloudFormation action to use the roles.
I. In the development account and in the production account create an IAM role for CodePipeline Configure the roles with permissions to perform CloudFormation operations and with permissions to retrieve and decrypt objects from the artifacts S3bucke
J. In the CodePipelme account modify the artifacts S3 bucket policy to allow the roles access Configure the CodePipeline CloudFormation action to use the roles.

Answer: BE

NEW QUESTION 9
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 10
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 Pile System (Amazon EFS) as shared storage in Account A in the organization.
The company wants to continue to use Amazon EPS 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 EPS 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 development team manually builds an artifact locally and then places it in an Amazon S3 bucket. The application has a local cache that must be cleared when a deployment occurs. The team runs a command to do this downloads the artifact from Amazon S3 and unzips the artifact to complete the deployment.
A DevOps team wants to migrate to a CI/CD process and build in checks to stop and roll back the deployment when a failure occurs. This requires the team to track the progression of the deployment.
Which combination of actions will accomplish this? (Select THREE)

A. Allow developers to check the code into a code repository Using Amazon EventBridge on every pull into the mam branch invoke an AWS Lambda function to build the artifact and store it in Amazon S3.
B. Create a custom script to clear the cache Specify the script in the BeforeInstall lifecycle hook in the AppSpec file.
C. Create user data for each Amazon EC2 instance that contains the clear cache script Once deployed test the application If it is not successful deploy it again.
D. Set up AWS CodePipeline to deploy the application Allow developers to check the code into a code repository as a source tor the pipeline.
E. Use AWS CodeBuild to build the artifact and place it in Amazon S3 Use AWS CodeDeploy to deploy the artifact to Amazon EC2 instances.
F. Use AWS Systems Manager to fetch the artifact from Amazon S3 and deploy it to all the instances.

Answer: BDE

NEW QUESTION 14
A company has an AWS CodePipeline pipeline that is configured with an Amazon S3 bucket in the eu-west-1 Region. The pipeline deploys an AWS Lambda application to the same Region. The pipeline consists of an AWS CodeBuild project build action and an AWS CloudFormation deploy action.
The CodeBuild project uses the aws cloudformation package AWS CLI command to build an artifact that contains the Lambda function code’s .zip file and the CloudFormation template. The CloudFormation deploy action references the CloudFormation template from the output artifact of the CodeBuild project’s build action.
The company wants to also deploy the Lambda application to the us-east-1 Region by using the pipeline in eu-west-1. A DevOps engineer has already updated the CodeBuild project to use the aws cloudformation package command to produce an additional output artifact for us-east-1.
Which combination of additional steps should the DevOps engineer take to meet these requirements? (Choose two.)

A. Modify the CloudFormation template to include a parameter for the Lambda function code’s zip file locatio
B. Create a new CloudFormation deploy action for us-east-1 in the pipelin
C. Configure the new deploy action to pass in the us-east-1 artifact location as a parameter override.
D. Create a new CloudFormation deploy action for us-east-1 in the pipelin
E. Configure the new deploy action to use the CloudFormation template from the us-east-1 output artifact.
F. Create an S3 bucket in us-east-1. Configure the S3 bucket policy to allow CodePipeline to have read and write access.
G. Create an S3 bucket in us-east-1. Configure S3 Cross-Region Replication (CRR) from the S3 bucket in eu-west-1 to the S3 bucket in us-east-1.
H. Modify the pipeline to include the S3 bucket for us-east-1 as an artifact stor
I. Create a new CloudFormation deploy action for us-east-1 in the pipelin
J. Configure the new deploy action to use the CloudFormation template from the us-east-1 output artifact.

Answer: AB

Explanation:
A. The CloudFormation template should be modified to include a parameter that indicates the location of the .zip file containing the Lambda function's code. This allows the CloudFormation deploy action to use the correct artifact depending on the region. This is critical because Lambda functions need to reference their code artifacts from the same region they are being deployed in. B. You would also need to create a new CloudFormation deploy action for the us-east-1 Region within the pipeline. This action should be configured to use the CloudFormation template from the artifact that was specifically created for us- east-1.

NEW QUESTION 17
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 propert

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 18
A company detects unusual login attempts in many of its AWS accounts. A DevOps engineer must implement a solution that sends a notification to the company's security team when multiple failed login attempts occur. The DevOps engineer has already created an Amazon Simple Notification Service (Amazon SNS) topic and has subscribed the security team to the SNS topic.
Which solution will provide the notification with the LEAST operational effort?

A. Configure AWS CloudTrail to send log management events to an Amazon CloudWatch Logs log grou
B. Create a CloudWatch Logs metric filter to match failed ConsoleLogin event
C. Create a CloudWatch alarm that is based on the metric filte
D. Configure an alarm action to send messages to the SNS topic.
E. Configure AWS CloudTrail to send log management events to an Amazon S3 bucke
F. Create an Amazon Athena query that returns a failure if the query finds failed logins in the logs in the S3 bucke
G. Create an Amazon EventBridge rule to periodically run the quer
H. Create a second EventBridge rule to detect when the query fails and to send a message to the SNS topic.
I. Configure AWS CloudTrail to send log data events to an Amazon CloudWatch Logs log grou
J. Create a CloudWatch logs metric filter to match failed Consolel_ogin event
K. Create a CloudWatch alarm that is based on the metric filte
L. Configure an alarm action to send messages to the SNS topic.
M. Configure AWS CloudTrail to send log data events to an Amazon S3 bucke
N. Configure an Amazon S3 event notification for the s3:ObjectCreated event typ
O. Filter the event type by ConsoleLogin failed event
P. Configure the event notification to forward to the SNS topic.

Answer: C

Explanation:
The correct answer is C. Configuring AWS CloudTrail to send log data events to an Amazon CloudWatch Logs log group and creating a CloudWatch logs metric filter to match failed ConsoleLogin events is the simplest and most efficient way to monitor and alert on failed login attempts. Creating a CloudWatch alarm that is based on the metric filter and configuring an alarm action to send messages to the SNS topic will ensure that the security team is notified when multiple failed login attempts occur. This solution requires the least operational effort compared to the other options.
Option A is incorrect because it involves configuring AWS CloudTrail to send log management events instead of log data events. Log management events are used to track changes to CloudTrail configuration, such as creating, updating, or deleting a trail. Log data events are used to track API activity in AWS accounts, such as login attempts. Therefore, option A will not capture the failed ConsoleLogin events.

Option B is incorrect because it involves creating an Amazon Athena query and two Amazon EventBridge rules to monitor and alert on failed login attempts. This is a more complex and costly solution than using CloudWatch logs and alarms. Moreover, option B relies on the query returning a failure, which may not happen if the query is executed successfully but does not find any failed logins.
Option D is incorrect because it involves configuring AWS CloudTrail to send log data events to an Amazon S3 bucket and configuring an Amazon S3 event notification for the s3:ObjectCreated event type. This solution will not work because the s3:ObjectCreated event type does not allow filtering by ConsoleLogin failed events. The event notification will be triggered for any object created in the S3 bucket, regardless of the event type. Therefore, option D will generate a lot of false positives and unnecessary notifications. References:
? AWS CloudTrail Log File Examples
? Creating CloudWatch Alarms for CloudTrail Events: Examples
? Monitoring CloudTrail Log Files with Amazon CloudWatch Logs

NEW QUESTION 19
A company is launching an application that stores raw data in an Amazon S3 bucket. Three applications need to access the data to generate reports. The data must be redacted differently for each application before
the applications can access the data.
Which solution will meet these requirements?

A. Create an S3 bucket for each applicatio
B. Configure S3 Same-Region Replication (SRR) from the raw data's S3 bucket to each application's S3 bucke
C. Configure each application to consume data from its own S3 bucket.
D. Create an Amazon Kinesis data strea
E. Create an AWS Lambda function that isinvoked by object creation events in the raw data's S3 bucke
F. Program the Lambda function to redact data for each applicatio
G. Publish the data on the Kinesis data strea
H. Configure each application to consume data from the Kinesis data stream.
I. For each application, create an S3 access point that uses the raw data's S3 bucket as the destinatio
J. Create an AWS Lambda function that is invoked by object creation events in the raw data's S3 bucke
K. Program the Lambda function to redact data for each applicatio
L. Store the data in each application's S3 access poin
M. Configure each application to consume data from its own S3 access point.
N. Create an S3 access point that uses the raw data's S3 bucket as the destinatio
O. For each application, create an S3 Object Lambda access point that uses the S3 access poin
P. Configure the AWS Lambda function for each S3 Object Lambda access point to redact data when objects are retrieve
Q. Configure each application to consume data from its own S3 Object Lambda access point.

Answer: D

Explanation:
? The best solution is to use S3 Object Lambda1, which allows you to add your own code to S3 GET, LIST, and HEAD requests to modify and process data as it is returned to an application2. This way, you can redact the data differently for each application without creating and storing multiple copies of the data or running proxies.
? The other solutions are less efficient or scalable because they require replicating the data to multiple buckets, streaming the data through Kinesis, or storing the data in S3 access points.
References: 1: Amazon S3 Features | Object Lambda | AWS 2: Transforming objects with S3 Object Lambda - Amazon Simple Storage Service

NEW QUESTION 23
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 m 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 24
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 tor 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 28
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 restriction for the specific repositories in the policy 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 polic
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 mam 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 33
An AWS CodePipeline pipeline has implemented a code release process. The pipeline is integrated with AWS CodeDeploy to deploy versions of an application to multiple Amazon EC2 instances for each CodePipeline stage.
During a recent deployment the pipeline failed due to a CodeDeploy issue. The DevOps team wants to improve monitoring and notifications during deployment to decrease resolution times.
What should the DevOps engineer do to create notifications. When issues are discovered?

A. Implement Amazon CloudWatch Logs for CodePipeline and CodeDeploy create an AWS Config rule to evaluate code deployment issues, and create an Amazon Simple Notification Service (Amazon SNS) topic to notify stakeholders of deployment issues.
B. Implement Amazon EventBridge for CodePipeline and CodeDeploy create an AWS Lambda function to evaluate code deployment issues, and create an Amazon Simple Notification Service (Amazon SNS) topic to notify stakeholders of deployment issues.
C. Implement AWS CloudTrail to record CodePipeline and CodeDeploy API call information create an AWS Lambda function to evaluate code deployment issues and create an Amazon Simple Notification Service (Amazon SNS) topic to notify stakeholders of deployment issues.
D. Implement Amazon EventBridge for CodePipeline and CodeDeploy create an Amazo
E. Inspector assessment target to evaluate code deployment issues and create an Amazon Simpl
F. Notification Service (Amazon SNS) topic to notify stakeholders of deployment issues.

Answer: B

Explanation:
AWS CloudWatch Events can be used to monitor events across different AWS resources, and a CloudWatch Event Rule can be created to trigger an AWS Lambda function when a deployment issue is detected in the pipeline. The Lambda function can then evaluate the issue and send a notification to the appropriate stakeholders through an Amazon SNS topic. This approach allows for real-time notifications and faster resolution times.

NEW QUESTION 34
A company that uses electronic health records is running a fleet of Amazon EC2 instances with an Amazon Linux operating system. As part of patient privacy requirements, the company must ensure continuous compliance for patches for operating system and applications running on the EC2 instances.
How can the deployments of the operating system and application patches be automated using a default and custom repository?

A. Use AWS Systems Manager to create a new patch baseline including the custom repositor
B. Run the AWS-RunPatchBaseline document using the run command to verify and install patches.
C. Use AWS Direct Connect to integrate the corporate repository and deploy the patchesusing Amazon CloudWatch scheduled events, then use the CloudWatch dashboard to create reports.
D. Use yum-config-manager to add the custom repository under /etc/yum.repos.d and run yum-config-manager-enable to activate the repository.
E. Use AWS Systems Manager to create a new patch baseline including the corporate repositor

F. Run the AWS-AmazonLinuxDefaultPatchBaseline document using the run command to verify and install patches.

Answer: A

Explanation:
https://docs.aws.amazon.com/systems-manager/latest/userguide/patch-manager-how-it-works-alt-source-repository.html

NEW QUESTION 37
A DevOps engineer is setting up a container-based architecture. The engineer has decided to use AWS CloudFormation to automatically provision an Amazon ECS cluster and an Amazon EC2 Auto Scaling group to launch the EC2 container instances. After successfully creating the CloudFormation stack, the engineer noticed that, even though the ECS cluster and the EC2 instances were created successfully and the stack finished the creation, the EC2 instances were associating with a different cluster.
How should the DevOps engineer update the CloudFormation template to resolve this issue?

A. Reference the EC2 instances in the AWS: ECS: Cluster resource and reference the ECS cluster in the AWS: ECS: Service resource.
B. Reference the ECS cluster in the AWS: AutoScaling: LaunchConfiguration resource of the UserData property.
C. Reference the ECS cluster in the AWS:EC2: lnstance resource of the UserData property.
D. Reference the ECS cluster in the AWS: CloudFormation: CustomResource resource to trigger an AWS Lambda function that registers the EC2 instances with the appropriate ECS cluster.

Answer: B

Explanation:
The UserData property of the AWS: AutoScaling: LaunchConfiguration resource can be used to specify a script that runs when the EC2 instances are launched. This script can include the ECS cluster name as an environment variable for the ECS agent running on the EC2 instances. This way, the EC2 instances will register with the correct ECS cluster. Option A is incorrect because the AWS: ECS: Cluster resource does not have a property to reference the EC2 instances. Option C is incorrect because the EC2 instances are launched by the Auto Scaling group, not by the AWS: EC2: Instance resource. Option D is incorrect because using a custom resource and a Lambda function is unnecessary and overly complex for this
scenario. References: AWS::AutoScaling::LaunchConfiguration, Amazon ECS Container Agent Configuration

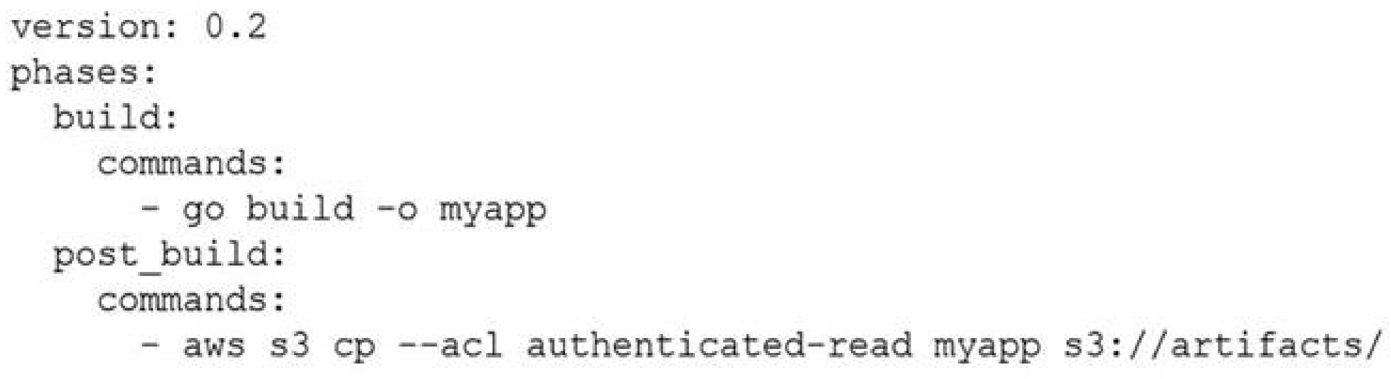
NEW QUESTION 39
A company plans to use Amazon CloudWatch to monitor its Amazon EC2 instances. The company needs to stop EC2 instances when the average of the NetworkPacketsIn metric is less than 5 for at least 3 hours in a 12-hour time window. The company must evaluate the metric every hour. The EC2 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 threshol
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 threshol
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 threshol
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 threshol
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 44
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 48
A company is using AWS CodePipeline to automate its release pipeline. AWS CodeDeploy is being used in the pipeline to deploy an application to Amazon Elastic Container Service (Amazon ECS) using the blue/green deployment model. The company wants to implement scripts to test the green version of the application before shifting traffic. These scripts will complete in 5 minutes or less. If errors are discovered during these tests, the application must be rolled back.
Which strategy will meet these requirements?

A. Add a stage to the CodePipeline pipeline between the source and deploy stage
B. Use AWS CodeBuild to create a runtime environment and build commands in the buildspec file to invoke test script
C. If errors are found, use the aws deploy stop-deployment command to stop the deployment.
D. Add a stage to the CodePipeline pipeline between the source and deploy stage
E. Use this stage to invoke an AWS Lambda function that will run the test script
F. If errors are found, use the aws deploy stop-deployment command to stop the deployment.
G. Add a hooks section to the CodeDeploy AppSpec fil
H. Use the AfterAllowTestTraffic lifecycle event to invoke an AWS Lambda function to run the test script
I. If errors are found, exit the Lambda function with an error to initiate rollback.
J. Add a hooks section to the CodeDeploy AppSpec fil
K. Use the AfterAllowTraffic lifecycle event to invoke the test script
L. If errors are found, use the aws deploy stop-deployment CLI command to stop the deployment.

Answer: C

Explanation:
https://docs.aws.amazon.com/codedeploy/latest/userguide/reference-appspec-file-structure-hooks.html

NEW QUESTION 51
A company manages a web application that runs on Amazon EC2 instances behind an Application Load Balancer (ALB). The EC2 instances run in an Auto Scaling group across multiple Availability Zones. The application uses an Amazon RDS for MySQL DB instance to store the data. The company has configured Amazon Route 53 with an alias record that points to the ALB.
A new company guideline requires a geographically isolated disaster recovery (DR> site with an RTO of 4 hours and an RPO of 15 minutes.
Which DR strategy will meet these requirements with the LEAST change to the application stack?

A. Launch a replica environment of everything except Amazon RDS in a different Availability Zone Create an RDS read replica in the new Availability Zone: and configure the new stack to point to the local RDS DB instanc
B. Add the new stack to the Route 53 record set by using a hearth check to configure a failover routing policy.
C. Launch a replica environment of everything except Amazon RDS in a different AW
D. Region Create an RDS read replica in the new Region and configure the new stack to point to the local RDS DB instanc
E. Add the new stack to the Route 53 record set by using a health check to configure a latency routing policy.
F. Launch a replica environment of everything except Amazon RDS ma different AWS Regio
G. In the event of an outage copy and restore the latest RDS snapshot from the primar
H. Region to the DR Region Adjust the Route 53 record set to point to the ALB in the DR Region.
I. Launch a replica environment of everything except Amazon RDS in a different AWS Regio
J. Create an RDS read replica in the new Region and configure the new environment to point to the local RDS DB instanc
K. Add the new stack to the Route 53 record set by using a health check to configure a failover routing polic
L. In the event of an outage promote the read replica to primary.

Answer: D

NEW QUESTION 54
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 origi
B. Create Amazon Route 53 alias records that have a failover policy and Evaluate Target Health set to Yes for both CloudFront distribution
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 grou
F. Set the original ALB as the primary origi
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 origins3. 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 58
A company is hosting a static website from an Amazon S3 bucket. The website is available to customers at example.com. The company uses an Amazon Route 53 weighted routing policy with a TTL of 1 day. The company has decided to replace the existing static website with a dynamic web application. The dynamic web application uses an Application Load Balancer (ALB) in front of a fleet of Amazon EC2 instances.
On the day of production launch to customers, the company creates an additional Route 53 weighted DNS record entry that points to the ALB with a weight of 255 and a TTL of 1 hour. Two days later, a DevOps engineer notices that the previous static website is displayed sometimes when customers navigate to example.com.
How can the DevOps engineer ensure that the company serves only dynamic content for example.com?

A. Delete all objects, including previous versions, from the S3 bucket that contains the static website content.
B. Update the weighted DNS record entry that points to the S3 bucke
C. Apply a weight of 0. Specify the domain reset option to propagate changes immediately.
D. Configure webpage redirect requests on the S3 bucket with a hostname that redirects to the ALB.
E. Remove the weighted DNS record entry that points to the S3 bucket from the example.com hosted zon
F. Wait for DNS propagation to become complete.

Answer: D

NEW QUESTION 60
A company wants to use AWS CloudFormation for infrastructure deployment. The company has strict tagging and resource requirements and wants to limit the deployment to two Regions. Developers will need to deploy multiple versions of the same application.
Which solution ensures resources are deployed in accordance with company policy?

A. Create AWS Trusted Advisor checks to find and remediate unapproved CloudFormation StackSets.
B. Create a Cloud Formation drift detection operation to find and remediate unapproved CloudFormation StackSets.
C. Create CloudFormation StackSets with approved CloudFormation templates.
D. Create AWS Service Catalog products with approved CloudFormation templates.

Answer: D

Explanation:
service catalog uses stacksets and can enforce tag and restrict resources AWS Customer case with tag enforcement https://aws.amazon.com/ko/blogs/apn/enforce-centralized-tag-compliance-using-aws-service-catalog-amazon-dynamodb-aws-lambda- and-amazon-cloudwatch-events/ And Youtube video showing how to restrict resources per user with portfolio https://www.youtube.com/watch?v=LzvhTcqqyog

NEW QUESTION 65
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 decryp
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 decryp
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 leve
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 70
A DevOps engineer is architecting a continuous development strategy for a company's software as a service (SaaS) web application running on AWS. For application and security reasons users subscribing to this application are distributed across multiple. Application Load Balancers (ALBs) each of which has a dedicated Auto Scaling group and fleet of Amazon EC2 instances The application does not require a build stage and when it is committed to AWS CodeCommit, the application must trigger a simultaneous deployment to all ALBs Auto Scaling groups and EC2 fleets.
Which architecture will meet these requirements with the LEAST amount of configuration?

A. Create a single AWS CodePipeline pipeline that deploys the application in parallel using unique AWS CodeDeploy applications and deployment groups created for each ALB-Auto Scaling group pair.
B. Create a single AWS CodePipeline pipeline that deploys the application using a single AWS CodeDeploy application and single deployment group.
C. Create a single AWS CodePipeline pipeline that deploys the application in parallel using a single AWS CodeDeploy application and unique deployment group for each ALB-Auto Scaling group pair.
D. Create an AWS CodePipeline pipeline for each ALB-Auto Scaling group pair that deploys the application using an AWS CodeDeploy application and deployment group created for the same ALB-Auto Scaling group pair.

Answer: C

Explanation:
https://docs.aws.amazon.com/codedeploy/latest/userguide/deployment- groups.html

NEW QUESTION 74
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 78
AnyCompany is using AWS Organizations to create and manage multiple AWS accounts AnyCompany recently acquired a smaller company, Example Corp. During the acquisition process, Example Corp's single AWS account joined AnyCompany's management account through an Organizations invitation. AnyCompany moved the new member account under an OU that is dedicated to Example Corp.
AnyCompany's DevOps eng•neer has an IAM user that assumes a role that is named OrganizationAccountAccessRole to access member accounts. This role is configured with a full access policy When the DevOps engineer tries to use the AWS Management Console to assume the role in Example Corp's new member account, the DevOps engineer receives the following error message "Invalid information in one or more fields. Check your information or contact your administrator."
Which solution will give the DevOps engineer access to the new member account?

A. In the management account, grant the DevOps engineer's IAM user permission to assume the OrganzatlonAccountAccessR01e IAM role in the new member account.
B. In the management account, create a new SCR In the SCP, grant the DevOps engineer's IAM user full access to all resources in the new member accoun
C. Attach the SCP to the OU that contains the new member account,
D. In the new member account, create a new IAM role that is named OrganizationAccountAccessRol
E. Attach the AdmInistratorAccess AVVS managed policy to the rol
F. In the role's trust policy, grant the management account permission to assume the role.
G. In the new member account edit the trust policy for the Organ zationAccountAccessRole IAM rol
H. Grant the management account permission to assume the role.

Answer: C

Explanation:
The problem is that the DevOps engineer cannot assume the OrganizationAccountAccessRole IAM role in the new member account that joined AnyCompany’s management account through an Organizations invitation. The solution is to create a new IAM role with the same name and trust policy in the new member account.
? Option A is incorrect, as it does not address the root cause of the error. The DevOps engineer’s IAM user already has permission to assume the OrganizationAccountAccessRole IAM role in any member account, as this is the default role name that AWS Organizations creates when a new account joins an organization. The error occurs because the new member account does not have this role, as it was not created by AWS Organizations.
? Option B is incorrect, as it does not address the root cause of the error. An SCP is a policy that defines the maximum permissions for account members of an organization or organizational unit (OU). An SCP does not grant permissions to IAM users or roles, but rather limits the permissions that identity-based policies or resource-based policies grant to them. An SCP also does not affect how IAM roles are assumed by other principals.
? Option C is correct, as it addresses the root cause of the error. By creating a new IAM role with the same name and trust policy as the OrganizationAccountAccessRole IAM role in the new member account, the DevOps engineer can assume this role and access the account. The new role should have the AdministratorAccess AWS managed policy attached, which grants full access to all AWS resources in the account. The trust policy should allow the management account to assume the role, which can be done by specifying the management account ID as a principal in the policy statement.
? Option D is incorrect, as it assumes that the new member account already has the OrganizationAccountAccessRole IAM role, which is not true. The new member account does not have this role, as it was not created by AWS Organizations. Editing the trust policy of a non-existent role will not solve the problem.

NEW QUESTION 79

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 82

An application running on a set of Amazon EC2 instances in an Auto Scaling group requires a configuration file to operate. The instances are created and maintained with AWS CloudFormation. A DevOps engineer wants the instances to have the latest configuration file when launched and wants changes to the configuration file to be reflected on all the instances with a minimal delay when the CloudFormation template is updated. Company policy requires that application configuration files be maintained along with AWS infrastructure configuration files m source control.
Which solution will accomplish this?

A. In the CloudFormaiion template add an AWS Config rul
B. Place the configuration file content in the rule's InputParameters property and set the Scope property to the EC2 Auto Scaling grou
C. Add an AWS Systems Manager Resource Data Sync resource to the template to poll for updates to the configuration.
D. In the CloudFormation template add an EC2 launch template resourc
E. Place the configuration file content in the launch templat
F. Configure the cfn-mit script to run when the instance is launched and configure the cfn-hup script to poll for updates to the configuration.
G. In the CloudFormation template add an EC2 launch template resourc
H. Place the configuration file content in the launch templat
I. Add an AWS Systems Manager Resource Data Sync resource to the template to poll for updates to the configuration.
J. In the CloudFormation template add CloudFormation imt metadat
K. Place the configuration file content m the metadat
L. Configure the cfn-init script to run when the instance is launched and configure the cfn-hup script to poll for updates to the configuration.

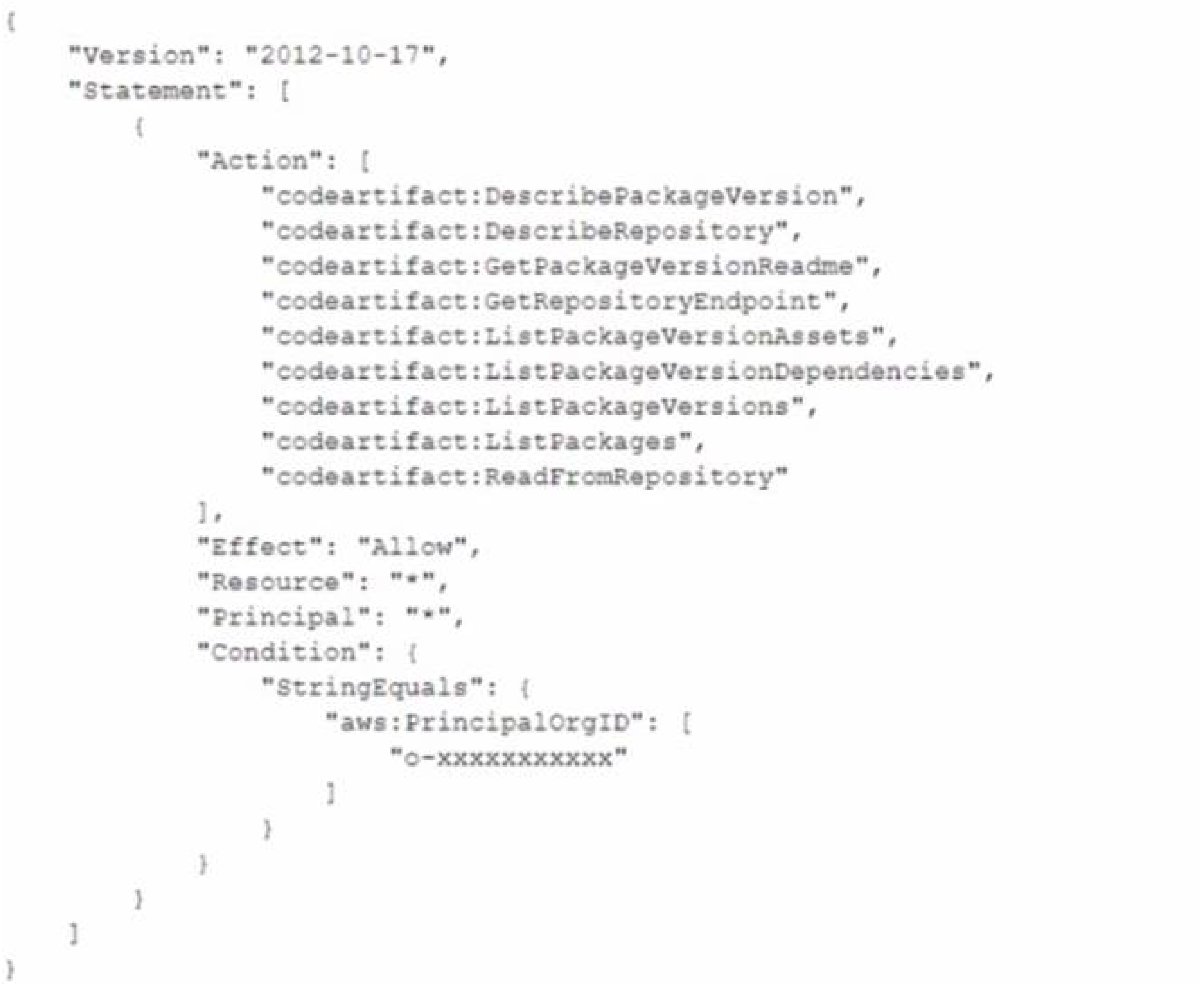
Answer: D

Explanation:

Use the AWS::CloudFormation::Init type to include metadata on an Amazon EC2 instance for the cfn-init helper script. If your template calls the cfn-init script, the script looks for resource metadata rooted in the AWS::CloudFormation::Init metadata key. Reference: https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/aws- resource-init.html

NEW QUESTION 83

A company uses AWS CodeArtifact to centrally store Python packages. The CodeArtifact repository is configured with the following repository policy.



```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Action": [
                "codeartifact:DescribePackageVersion",
                "codeartifact:DescribeRepository",
                "codeartifact:GetPackageVersionReadme",
                "codeartifact:GetRepositoryEndpoint",
                "codeartifact:ListPackageVersionAssets",
                "codeartifact:ListPackageVersionDependencies",
                "codeartifact:ListPackageVersions",
                "codeartifact:ListPackages",
                "codeartifact:ReadFromRepository"
            ],
            "Effect": "Allow",
            "Resource": "*",
            "Principal": "*",
            "Condition": {
                "StringEquals": {
                    "aws:PrincipalOrgID": [
                        "o-xxxxxxxxxxx"
                    ]
                }
            }
        }
    ]
}
```

A development team is building a new project in an account that is in an organization in AWS Organizations. The development team wants to use a Python library that has already been stored in the CodeArtifact repository in the organization. The development team uses AWS CodePipeline and AWS CodeBuild to build the new application. The CodeBuild job that the development team uses to build the application is configured to run in a VPC Because of compliance requirements the VPC has no internet connectivity.

The development team creates the VPC endpoints for CodeArtifact and updates the CodeBuild buildspec yaml file. However, the development team cannot download the Python library from the repository.

Which combination of steps should a DevOps engineer take so that the development team can use Code Artifact? (Select TWO.)

A. Create an Amazon S3 gateway endpoint Update the route tables for the subnets thatare running the CodeBuild job.
B. Update the repository policy's Principal statement to include the ARN of the role that the CodeBuild project uses.
C. Share the CodeArtifact repository with the organization by using AWS Resource Access Manager (AWS RAM).
D. Update the role that the CodeBuild project uses so that the role has sufficient permissions to use the CodeArtifact repository.
E. Specify the account that hosts the repository as the delegated administrator for CodeArtifact in the organization.

Answer: AD

Explanation:
"AWS CodeArtifact operates in multiple Availability Zones and stores artifact data and metadata in Amazon S3 and Amazon DynamoDB. Your encrypted data is redundantly stored across multiple facilities and multiple devices in each facility, making it highly available and highly durable."
https://aws.amazon.com/codeartifact/features/ With no internet connectivity, a gateway endpoint becomes necessary to access S3.

NEW QUESTION 84
A company is hosting a web application in an AWS Region. For disaster recovery purposes, a second region is being used as a standby. Disaster recovery requirements state that session data must be replicated between regions in near-real time and 1% of requests should route to the secondary region to continuously verify system functionality. Additionally, if there is a disruption in service in the main region, traffic should be automatically routed to the secondary region, and the secondary region must be able to
scale up to handle all traffic.
How should a DevOps engineer meet these requirements?

A. In both regions, deploy the application on AWS Elastic Beanstalk and use Amazon DynamoDB global tables for session dat
B. Use an Amazon Route 53 weighted routing policy with health checks to distribute the traffic across the regions.
C. In both regions, launch the application in Auto Scaling groups and use DynamoDB for session dat
D. Use a Route 53 failover routing policy with health checks to distribute the traffic across the regions.
E. In both regions, deploy the application in AWS Lambda, exposed by Amazon API Gateway, and use Amazon RDS for PostgreSQL with cross-region replication for session dat
F. Deploy the web application with client-side logic to call the API Gateway directly.
G. In both regions, launch the application in Auto Scaling groups and use DynamoDB global tables for session dat
H. Enable an Amazon CloudFront weighted distribution across region
I. Point the Amazon Route 53 DNS record at the CloudFront distribution.

Answer: D

NEW QUESTION 88
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 91
A DevOps engineer is building a continuous deployment pipeline for a serverless application that uses AWS Lambda functions. The company wants to reduce the customer impact of an unsuccessful deployment. The company also wants to monitor for issues.
Which deploy stage configuration will meet these requirements?

A. Use an AWS Serverless Application Model (AWS SAM) template to define the serverless applicatio
B. Use AWS CodeDeploy to deploy the Lambda functions with the Canary10Percent15Minutes Deployment Preference Typ
C. Use Amazon CloudWatch alarms to monitor the health of the functions.
D. Use AWS CloudFormation to publish a new stack update, and include Amazon CloudWatch alarms on all resource
E. Set up an AWS CodePipeline approval action for a developer to verify and approve the AWS CloudFormation change set.
F. Use AWS CloudFormation to publish a new version on every stack update, and include Amazon CloudWatch alarms on all resource
G. Use the RoutingConfig property of the AWS::Lambda::Alias resource to update the traffic routing during the stack update.
H. Use AWS CodeBuild to add sample event payloads for testing to the Lambda function
I. Publish a new version of the functions, and include Amazon CloudWatch alarm
J. Update the production alias to point to the new versio
K. Configure rollbacks to occur when an alarm is in the ALARM state.

Answer: D

Explanation:
Use routing configuration on an alias to send a portion of traffic to a second function version. For example, you can reduce the risk of deploying a new version by configuring the alias to send most of the traffic to the existing version, and only a small percentage of traffic to the new version.
https://docs.aws.amazon.com/lambda/latest/dg/configuration-aliases.html
The following are the steps involved in the deploy stage configuration that will meet the requirements:
? Use AWS CodeBuild to add sample event payloads for testing to the Lambda
functions.
? Publish a new version of the functions, and include Amazon CloudWatch alarms.
? Update the production alias to point to the new version.
? Configure rollbacks to occur when an alarm is in the ALARM state.
This configuration will help to reduce the customer impact of an unsuccessful deployment
by deploying the new version of the functions to a staging environment first. This will allow the DevOps engineer to test the new version of the functions before deploying it to production.
The configuration will also help to monitor for issues by including Amazon CloudWatch alarms. These alarms will alert the DevOps engineer if there are any problems with the new version of the functions.

NEW QUESTION 94
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

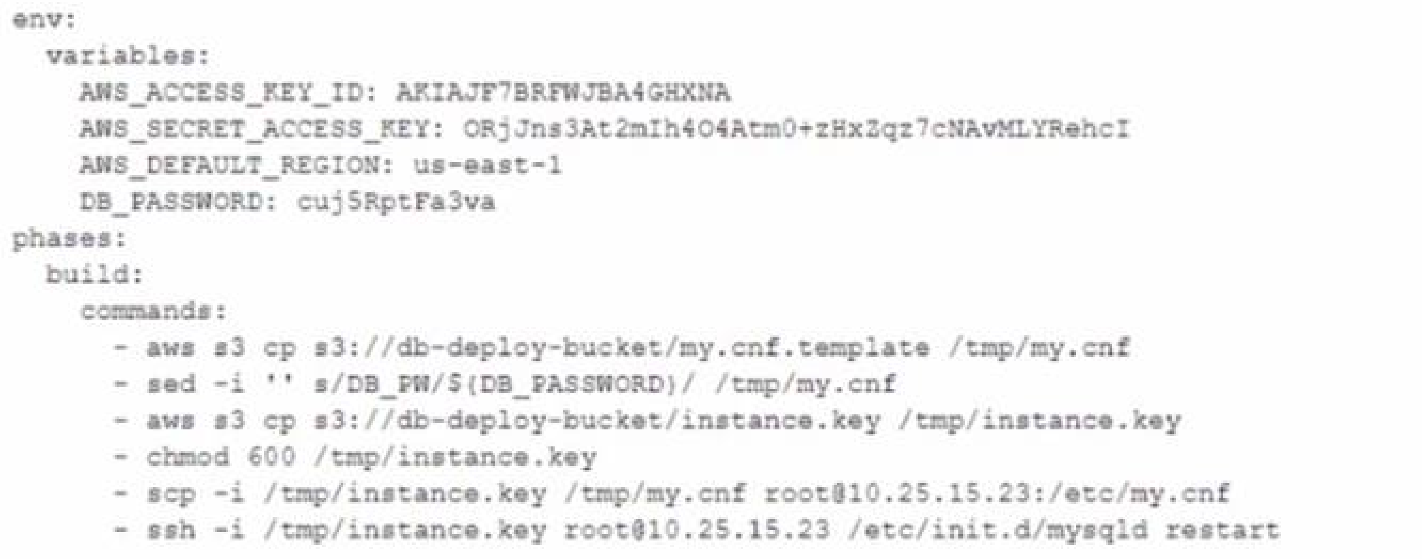
NEW QUESTION 98
A company uses AWS Organizations to manage its AWS accounts. The company has a root OU that has a child OU. The root OU has an SCP that allows all actions on all resources. The child OU has an SCP that allows all actions for Amazon DynamoDB and AWS Lambda, and denies all other actions.
The company has an AWS account that is named vendor-data in the child OU. A DevOps engineer has an 1AM user that is attached to the AdministratorAccess 1AM policy in the vendor-data account. The DevOps engineer attempts to launch an Amazon EC2 instance in the vendor-data account but receives an access denied error.
Which change should the DevOps engineer make to launch the EC2 instance in the vendor-data account?

A. Attach the AmazonEC2FullAccess 1AM policy to the 1AM user.
B. Create a new SCP that allows all actions for Amazon EC2. Attach the SCP to the vendor-data account.
C. Update the SCP in the child OU to allow all actions for Amazon EC2.
D. Create a new SCP that allows all actions for Amazon EC2. Attach the SCP to the root OU.

Answer: C

Explanation:
The correct answer is C. Updating the SCP in the child OU to allow all actions for Amazon EC2 will enable the DevOps engineer to launch the EC2 instance in the vendor-data account. SCPs are applied to OUs and accounts in a hierarchical manner, meaning that the SCPs attached to the parent OU are inherited by the child OU and accounts. Therefore, the SCP in the child OU overrides the SCP in the root OU and denies all actions except for DynamoDB and Lambda. By adding EC2 to the allowed actions in the child OU's SCP, the DevOps engineer can access EC2 resources in the vendor-data account.
Option A is incorrect because attaching the AmazonEC2FullAccess IAM policy to the IAM user will not grant the user access to EC2 resources. IAM policies are evaluated after SCPs, so even if the IAM policy allows EC2 actions, the SCP will still deny them.
Option B is incorrect because creating a new SCP that allows all actions for EC2 and attaching it to the vendor-data account will not work. SCPs are not cumulative, meaning that only one SCP is applied to an account at a time. The SCP attached to the account will be the SCP attached to the OU that contains the account. Therefore, option B will not change the SCP that is applied to the vendor-data account.
Option D is incorrect because creating a new SCP that allows all actions for EC2 and attaching it to the root OU will not work. As explained earlier, the SCP in the child OU overrides the SCP in the root OU and denies all actions except for DynamoDB and Lambda. Therefore, option D will not affect the SCP that is applied to the vendor-data account.

NEW QUESTION 103
A DevOps engineer is working on a project that is hosted on Amazon Linux and has failed a security review. The DevOps manager has been asked to review the company buildspec.yaml die for an AWS CodeBuild project and provide recommendations. The buildspec. yaml file is configured as follows:



```
env:
  variables:
    AWS_ACCESS_KEY_ID: AKIAJF7BRFWJBA4GHXNA
    AWS_SECRET_ACCESS_KEY: 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
    AWS_DEFAULT_REGION: us-east-1
    DB_PASSWORD: cuj5RptFa3va
phases:
  build:
    commands:
      - aws s3 cp s3://db-deploy-bucket/my.cnf.template /tmp/my.cnf
      - sed -i '' s/DB_PW/${DB_PASSWORD}/ /tmp/my.cnf
      - aws s3 cp s3://db-deploy-bucket/instance.key /tmp/instance.key
      - chmod 600 /tmp/instance.key
      - scp -i /tmp/instance.key /tmp/my.cnf root@10.25.15.23:/etc/my.cnf
      - ssh -i /tmp/instance.key root@10.25.15.23 /etc/init.d/mysqld restart
```

What changes should be recommended to comply with AWS security best practices? (Select THREE.)

A. Add a post-build command to remove the temporary files from the container before termination to ensure they cannot be seen by other CodeBuild users.
B. Update the CodeBuild project role with the necessary permissions and then remove the AWS credentials from the environment variable.
C. Store the db_password as a SecureString value in AWS Systems Manager Parameter Store and then remove the db_password from the environment variables.
D. Move the environment variables to the 'db.-deploy-bucket 'Amazon S3 bucket, add a prebuild stage to download then export the variables.
E. Use AWS Systems Manager run command versus sec and ssh commands directly to the instance.

Answer: BCE

Explanation:
B. Update the CodeBuild project role with the necessary permissions and then remove the AWS credentials from the environment variable. C. Store the DB_PASSWORD as a SecureString value in AWS Systems Manager Parameter Store and then remove the DB_PASSWORD from the environment variables. E. Use AWS Systems Manager run command versus scp and ssh commands directly to the instance.

NEW QUESTION 108
A DevOps engineer needs to configure a blue green deployment for an existing three-tier application. The application runs on Amazon EC2 instances and uses an Amazon RDS database The EC2 instances run behind an Application Load Balancer (ALB) and are in an Auto Scaling group.
The DevOps engineer has created a launch template and an Auto Scaling group for the blue environment. The DevOps engineer also has created a launch template and an Auto Scaling group for the green environment. Each Auto Scaling group deploys to a matching blue or green target group. The target group also specifies which software blue or green gets loaded on the EC2 instances. The ALB can be configured to send traffic to the blue environments target group or the green environments target group. An Amazon Route 53 record for www example com points to the ALB.
The deployment must move traffic all at once between the software on the blue environment's EC2 instances to the newly deployed software on the green environments EC2 instances
What should the DevOps engineer do to meet these requirements?

A. Start a rolling restart to the Auto Scaling group tor the green environment to deploy the new software on the green environment's EC2 instances When the rolling restart is complete, use an AWS CLI command to update the ALB to send traffic to the green environment's target group.

B. Use an AWS CLI command to update the ALB to send traffic to the green environment's target grou
C. Then start a rolling restart of the Auto Scaling group for the green environment to deploy the new software on the green environment's EC2 instances.
D. Update the launch template to deploy the green environment's software on the blue environment's EC2 instances Keep the target groups and Auto Scaling groups unchanged in both environments Perform a rolling restart of the blue environment's EC2 instances.
E. Start a rolling restart of the Auto Scaling group for the green environment to deploy the new software on the green environment's EC2 instances When the rolling restart is complete, update the Route 53 DNS to point to the green environments endpoint on the ALB.

Answer: A

Explanation:
This solution will meet the requirements because it will use a rolling restart to gradually replace the EC2 instances in the green environment with new instances that have the new software version installed. A rolling restart is a process that terminates and launches instances in batches, ensuring that there is always a minimum number of healthy instances in service. This way, the green environment can be updated without affecting the availability or performance of the application. When the rolling restart is complete, the DevOps engineer can use an AWS CLI command to modify the listener rules of the ALB and change the default action to forward traffic to the green environment’s target group. This will switch the traffic from the blue environment to the green environment all at once, as required by the question.

NEW QUESTION 110
A media company has several thousand Amazon EC2 instances in an AWS account. The company is using Slack and a shared email inbox for team communications and important updates. A DevOps engineer needs to send all AWS-scheduled EC2 maintenance notifications to the Slack channel and the shared inbox. The solution must include the instances' Name and Owner tags.
Which solution will meet these requirements?

A. Integrate AWS Trusted Advisor with AWS Config Configure a custom AWS Config rule to invoke an AWS Lambda function to publish notifications to an Amazon Simple Notification Service (Amazon SNS) topic Subscribe a Slack channel endpoint and the shared inbox to the topic.
B. Use Amazon EventBridge to monitor for AWS Health Events Configure the maintenance events to target an Amazon Simple Notification Service (Amazon SNS) topic Subscribe an AWS Lambda function to the SNS topic to send notifications to the Slack channel and the shared inbox.
C. Create an AWS Lambda function that sends EC2 maintenance notifications to the Slack channel and the shared inbox Monitor EC2 health events by using Amazon CloudWatch metrics Configure a CloudWatch alarm that invokes the Lambda function when a maintenance notification is received.
D. Configure AWS Support integration with AWS CloudTrail Create a CloudTrail lookup event to invoke an AWS Lambda function to pass EC2 maintenance notifications to Amazon Simple Notification Service (Amazon SNS) Configure Amazon SNS to target the Slack channel and the shared inbox.

Answer: B

Explanation:
https://docs.aws.amazon.com/health/latest/ug/cloudwatch-events-health.html

NEW QUESTION 112
A company has 20 service learns Each service team is responsible for its own microservice. Each service team uses a separate AWS account for its microservice and a VPC with the 192 168 0 0/22 CIDR block. The company manages the AWS accounts with AWS Organizations.
Each service team hosts its microservice on multiple Amazon EC2 instances behind an Application Load Balancer. The microservices communicate with each other across the public internet. The company's security team has issued a new guideline that all communication between microservices must use HTTPS over private network connections and cannot traverse the public internet.
A DevOps engineer must implement a solution that fulfills these obligations and minimizes the number of changes for each service team.
Which solution will meet these requirements?

A. Create a new AWS account in AWS Organizations Create a VPC in this account and use AWS Resource Access Manager to share the private subnets of this VPC with the organization Instruct the service teams to launch a ne
B. Network Load Balancer (NLB) and EC2 instances that use the shared private subnets Use the NLB DNS names for communication between microservices.
C. Create a Network Load Balancer (NLB) in each of the microservice VPCs Use AWS PrivateLink to create VPC endpoints in each AWS account for the NLBs Create subscriptions to each VPC endpoint in each of the other AWS accounts Use the VPC endpoint DNS names for communication between microservices.
D. Create a Network Load Balancer (NLB) in each of the microservice VPCs Create VPC peering connections between each of the microservice VPCs Update the route tables for each VPC to use the peering links Use the NLB DNS names for communication between microservices.
E. Create a new AWS account in AWS Organizations Create a transit gateway in this account and use AWS Resource Access Manager to share the transit gateway with the organizatio
F. In each of the microservice VPC
G. create a transit gateway attachment to the shared transit gateway Update the route tables of each VPC to use the transit gateway Create a Network Load Balancer (NLB) in each of the microservice VPCs Use the NLB DNS names for communication between microservices.

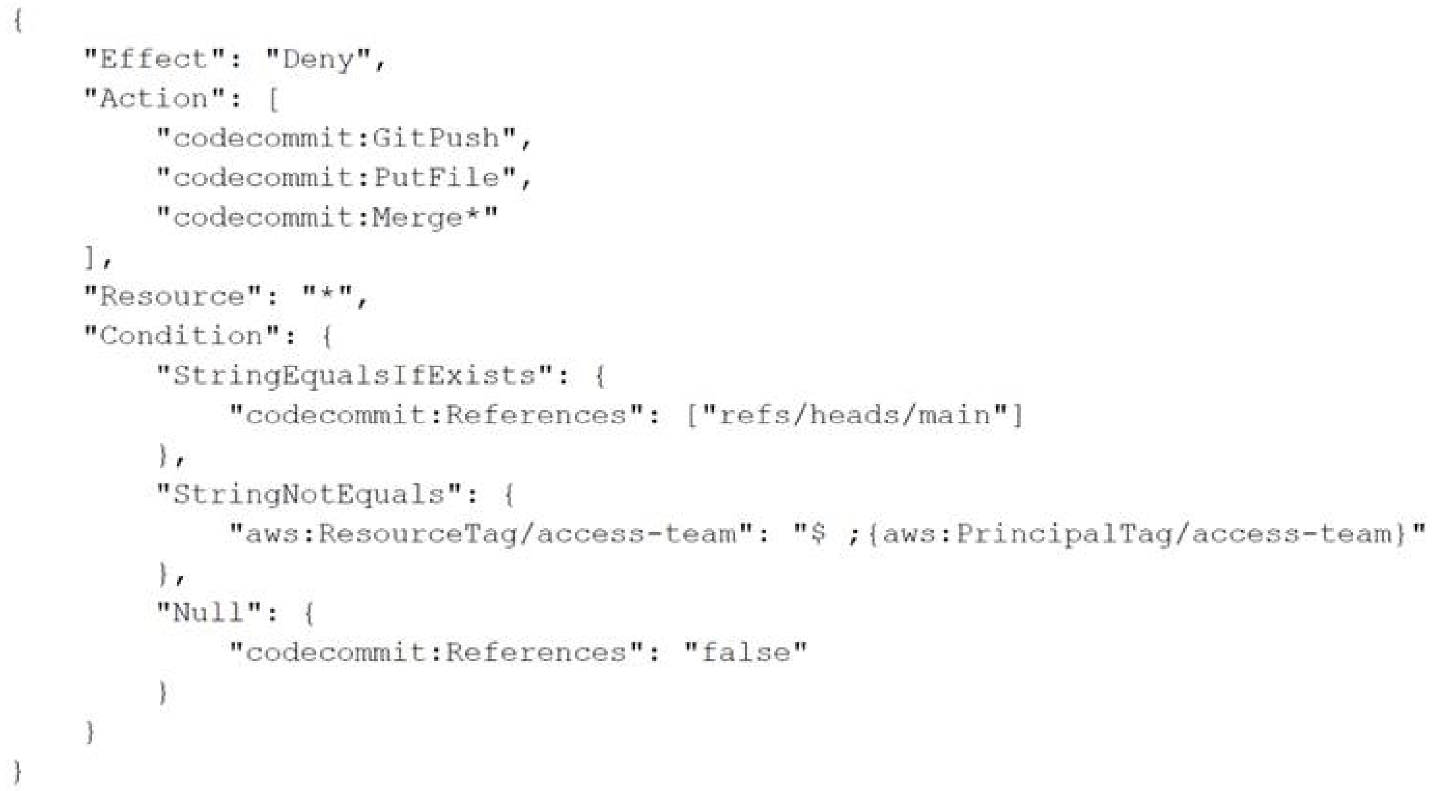
Answer: B

Explanation:
https://aws.amazon.com/blogs/networking-and-content-delivery/connecting-networks-with-overlapping-ip-ranges/ Private link is the best option because Transit Gateway doesn't support overlapping CIDR ranges.

NEW QUESTION 115
A company's application teams use AWS CodeCommit repositories for their applications.
The application teams have repositories in multiple AWS accounts. All accounts are in an organization in AWS Organizations.
Each application team uses AWS IAM Identity Center (AWS Single Sign-On) configured with an external IdP to assume a developer IAM role. The developer role allows the application teams to use Git to work with the code in the repositories.
A security audit reveals that the application teams can modify the main branch in any repository. A DevOps engineer must implement a solution that allows the application teams to modify the main branch of only the repositories that they manage.
Which combination of steps will meet these requirements? (Select THREE.)

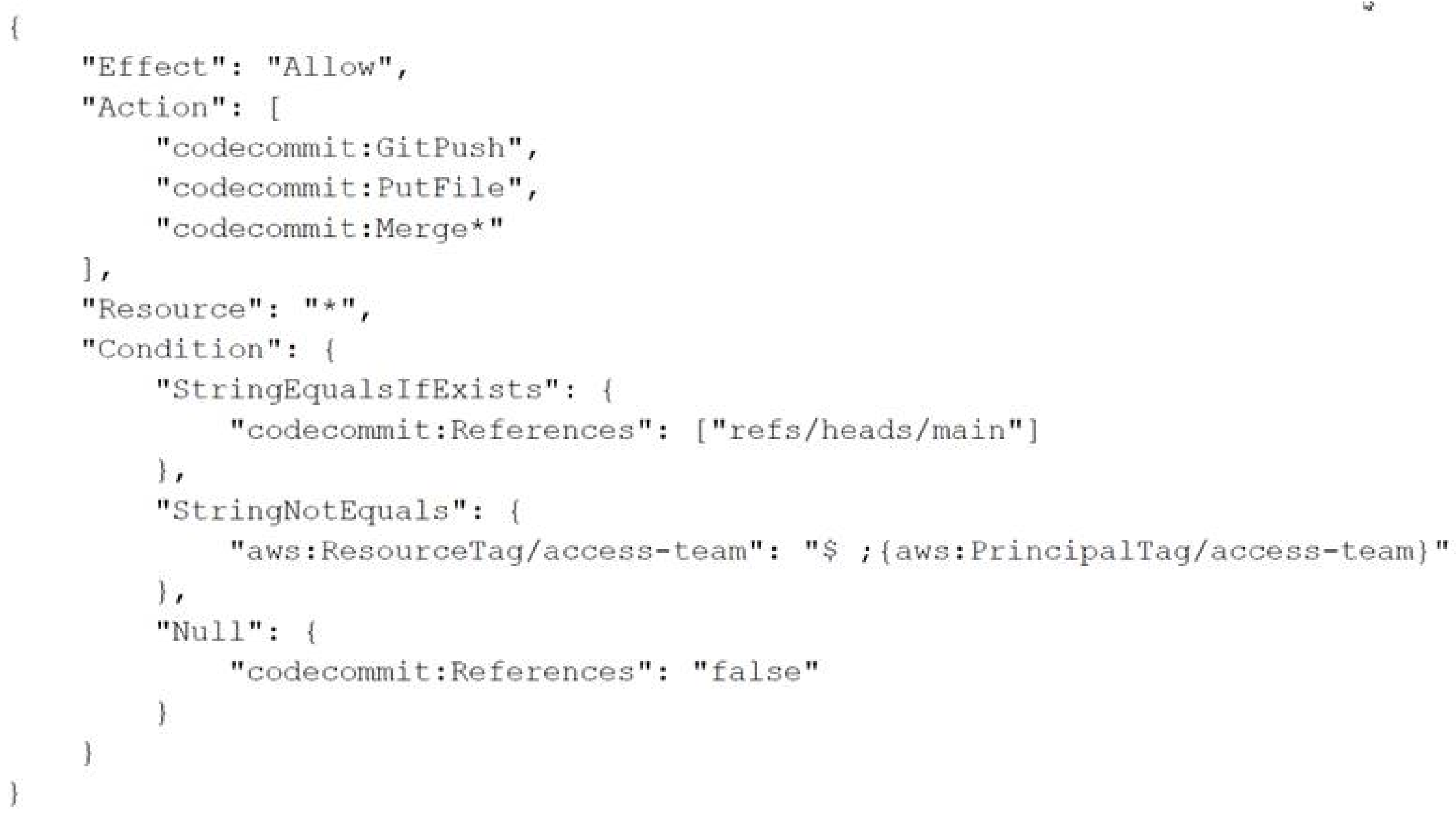
A. Update the SAML assertion to pass the user's team nam
B. Update the IAM role's trust policy to add an access-team session tag that has the team name.
C. Create an approval rule template for each team in the Organizations management accoun
D. Associate the template with all the repositorie
E. Add the developer role ARN as an approver.
F. Create an approval rule template for each accoun

G. Associate the template with all repositorie
H. Add the "aws:ResourceTag/access-team":"$;{aws:PrincipalTag/access- team}" condition to the approval rule template.
I. For each CodeCommit repository, add an access-team tag that has the value set to the name of the associated team.
J. Attach an SCP to the account
K. Include the following statement:



```
{
    "Effect": "Deny",
    "Action": [
        "codecommit:GitPush",
        "codecommit:PutFile",
        "codecommit:Merge*"
    ],
    "Resource": "*",
    "Condition": {
        "StringEqualsIfExists": {
            "codecommit:References": ["refs/heads/main"]
        },
        "StringNotEquals": {
            "aws:ResourceTag/access-team": "$ ;{aws:PrincipalTag/access-team}"
        },
        "Null": {
            "codecommit:References": "false"
        }
    }
}
```

L. Create an IAM permissions boundary in each accoun
M. Include the following statement:



```
{
    "Effect": "Allow",
    "Action": [
        "codecommit:GitPush",
        "codecommit:PutFile",
        "codecommit:Merge*"
    ],
    "Resource": "*",
    "Condition": {
        "StringEqualsIfExists": {
            "codecommit:References": ["refs/heads/main"]
        },
        "StringNotEquals": {
            "aws:ResourceTag/access-team": "$ ;{aws:PrincipalTag/access-team}"
        },
        "Null": {
            "codecommit:References": "false"
        }
    }
}
```

Answer: ADF

Explanation:
Short Explanation: To meet the requirements, the DevOps engineer should update the SAML assertion to pass the user's team name, update the IAM role's trust policy to add an access-team session tag that has the team name, create an IAM permissions boundary in each account, and for each CodeCommit repository, add an access-team tag that has the value set to the name of the associated team.
References:
? Updating the SAML assertion to pass the user's team name allows the DevOps engineer to use IAM tags to identify which team a user belongs to. This can help enforce fine-grained access control based on the user's team membership1.
? Updating the IAM role's trust policy to add an access-team session tag that has the team name allows the DevOps engineer to use IAM condition keys to restrict access based on the session tag value2. For example, the DevOps engineer can use the aws:PrincipalTag condition key to match the access-team tag of the user with the access-team tag of the repository3.
? Creating an IAM permissions boundary in each account allows the DevOps engineer to set the maximum permissions that an identity-based policy can grant to an IAM entity. An entity's permissions boundary allows it to perform only the actions that are allowed by both its identity-based policies and its permissions boundaries4. For example, the DevOps engineer can use a permissions boundary policy to limit the actions that a user can perform on CodeCommit repositories based on their access-team tag5.
? For each CodeCommit repository, adding an access-team tag that has the value set to the name of the associated team allows the DevOps engineer to use resource tags to identify which team manages a repository. This can help enforce fine-grained access control based on the resource tag value6.
? The other options are incorrect because:

NEW QUESTION 116
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 R TO.
Which solution will meet these requirements?

A. Create a second CloudFront distribution that has the secondary ALB as the default origi
B. Create Amazon Route 53 alias records that have a failover policy and Evaluate Target Health set to Yes for both CloudFront distribution
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 grou
F. Set the original ALB as the primary origi
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 Target Health set to Yes for both ALB
J. Set the TTL of both records to
K. Update the distribution's origin to use the new record set.
L. Create a CloudFront function that detects HTTP 5xx status code
M. Configure the function to return a 307 Temporary Redirect error response to the secondary ALB if the function detects 5xx status code
N. Update the distribution's default behavior to send origin responses to the function.

Answer: B

Explanation:
To implement failover for the application to the secondary Region so that HTTP GET requests meet the desired RTO, the DevOps engineer should use the following solution:
? Create a new origin on the distribution for the secondary ALB. A CloudFront origin
is the source of the content that CloudFront delivers to viewers. By creating a new origin for the secondary ALB, the DevOps engineer can configure CloudFront to route traffic to the secondary Region when the primary Region is unavailable1
? Create a new origin group. Set the original ALB as the primary origin. Configure
the origin group to fail over for HTTP 5xx status codes. An origin group is a logical grouping of two origins: a primary origin and a secondary origin. By creating an origin group, the DevOps engineer can specify which origin CloudFront should use as a fallback when the primary origin fails. The DevOps engineer can also define which HTTP status codes should trigger a failover from the primary origin to the secondary origin. By setting the original ALB as the primary origin and configuring the origin group to fail over for HTTP 5xx status codes, the DevOps engineer can ensure that CloudFront will switch to the secondary ALB when the primary ALB returns server errors2
? Update the default behavior to use the origin group. A behavior is a set of rules
that CloudFront applies when it receives requests for specific URLs or file types. The default behavior applies to all requests that do not match any other behaviors. By updating the default behavior to use the origin group, the DevOps engineer can enable failover routing for all requests that are sent to the distribution3
This solution will meet the requirements because it will automate the failover of the
application to the secondary Region with zero-second RTO. When CloudFront receives an HTTP GET request, it will first try to route it to the primary ALB in the primary Region. If the primary ALB is healthy and returns a successful response, CloudFront will deliver it to the viewer. If the primary ALB is unhealthy or returns an HTTP 5xx status code, CloudFront will automatically route the request to the secondary ALB in the secondary Region and deliver its response to the viewer.
The other options are not correct because they either do not provide zero-second RTO or do not work as expected. Creating a second CloudFront distribution that has the secondary ALB as the default origin and creating Amazon Route 53 alias records that have a failover policy is not a good option because it will introduce additional latency and complexity to the solution. Route 53 health checks and DNS propagation can take several minutes or longer, which means that viewers might experience delays or errors when accessing the application during a failover event. Creating Amazon Route 53 alias records that have a failover policy and Evaluate Target Health set to Yes for both ALBs and setting the TTL of both records to O is not a valid option because it will not work with CloudFront distributions. Route 53 does not support health checks for alias records that point to CloudFront distributions, so it cannot detect if an ALB behind a distribution is healthy or not. Creating a CloudFront function that detects HTTP 5xx status codes and returns a 307 Temporary Redirect error response to the secondary ALB is not a valid option because it will not provide zero-second RTO. A 307 Temporary Redirect error response tells viewers to retry their requests with a different URL, which means that viewers will have to make an additional request and wait for another response from CloudFront before reaching the secondary ALB.
References:
? 1: Adding, Editing, and Deleting Origins - Amazon CloudFront
? 2: Configuring Origin Failover - Amazon CloudFront
? 3: Creating or Updating a Cache Behavior - Amazon CloudFront

NEW QUESTION 118
A DevOps team is merging code revisions for an application that uses an Amazon RDS Multi-AZ DB cluster for its production database. The DevOps team uses continuous integration to periodically verify that the application works. The DevOps team needs to test the changes before the changes are deployed to the production database.
Which solution will meet these requirements'?

A. Use a buildspec file in AWS CodeBuild to restore the DB cluster from a snapshot of the production database run integration tests, and drop the restored database after verification.
B. Deploy the application to productio
C. Configure an audit log of data control language (DCL) operations to capture database activities to perform if verification fails.
D. Create a snapshot of the DB duster before deploying the application Use the Update requires Replacement property on the DB instance in AWS CloudFormation to deploy the application and apply the changes.
E. Ensure that the DB cluster is a Multi-AZ deploymen
F. Deploy the application with the update
G. Fail over to the standby instance if verification fails.

Answer: A

Explanation:
This solution will meet the requirements because it will create a temporary copy of the production database using a snapshot, run the integration tests on the copy, and delete the copy after the tests are done. This way, the production database will not be affected by the code revisions, and the DevOps team can test the changes before deploying them to production. A buildspec file is a YAML file that contains the commands and settings that CodeBuild uses to run a build1. The buildspec file can specify the steps to restore the DB cluster from a snapshot, run the integration tests, and drop the restored database2

NEW QUESTION 122
A company's application development team uses Linux-based Amazon EC2 instances as bastion hosts. Inbound SSH access to the bastion hosts is restricted to specific IP addresses, as defined in the associated security groups. The company's security team wants to receive a notification if the security group rules are modified to allow SSH access from any IP address.
What should a DevOps engineer do to meet this requirement?

A. Create an Amazon EventBridge rule with a source of aws.cloudtrail and the event name AuthorizeSecurityGroupIngres
B. Define an Amazon Simple Notification Service (Amazon SNS) topic as the target.
C. Enable Amazon GuardDuty and check the findings for security groups in AWS Security Hu
D. Configure an Amazon EventBridge rule with a custom pattern that matches GuardDuty events with an output of NON_COMPLIAN
E. Define an Amazon Simple Notification Service (Amazon SNS) topic as the target.
F. Create an AWS Config rule by using the restricted-ssh managed rule to check whether security groups disallow unrestricted incoming SSH traffi
G. Configure automatic remediation to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic.
H. Enable Amazon Inspecto
I. Include the Common Vulnerabilities and Exposures-1.1 rules package to check the security groups that are associated with the bastion host
J. Configure Amazon Inspector to publish a message to an Amazon Simple Notification Service (Amazon SNS) topic.

Answer: A

Explanation:
https://aws.amazon.com/premiumsupport/knowledge-center/monitor-security-group-changes-ec2/

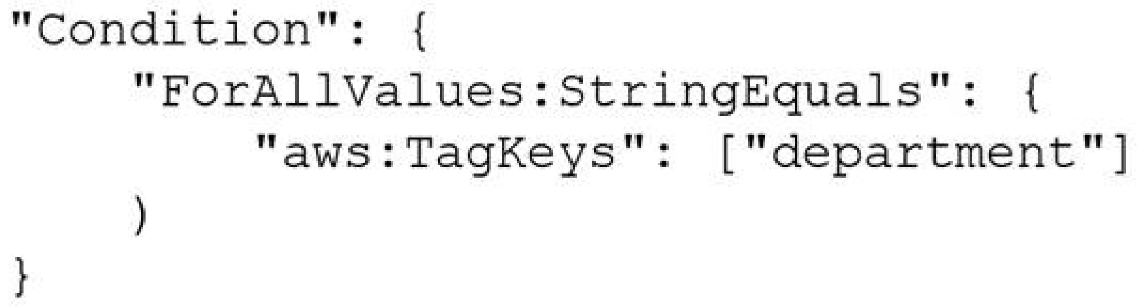
NEW QUESTION 124
A company has migrated its container-based applications to Amazon EKS and want to establish automated email notifications. The notifications sent to each email address are for specific activities related to EKS components. The solution will include Amazon SNS topics and an AWS Lambda function to evaluate incoming log events and publish messages to the correct SNS topic.
Which logging solution will support these requirements?

A. Enable Amazon CloudWatch Logs to log the EKS component
B. Create a CloudWatch subscription filter for each component with Lambda as the subscription feed destination.
C. Enable Amazon CloudWatch Logs to log the EKS component
D. Create CloudWatch Logs Insights queries linked to Amazon EventBridge events that invoke Lambda.
E. Enable Amazon S3 logging for the EKS component
F. Configure an Amazon CloudWatch subscription filter for each component with Lambda as the subscription feed destination.
G. Enable Amazon S3 logging for the EKS component
H. Configure S3 PUT Object event notifications with AWS Lambda as the destination.

Answer: A

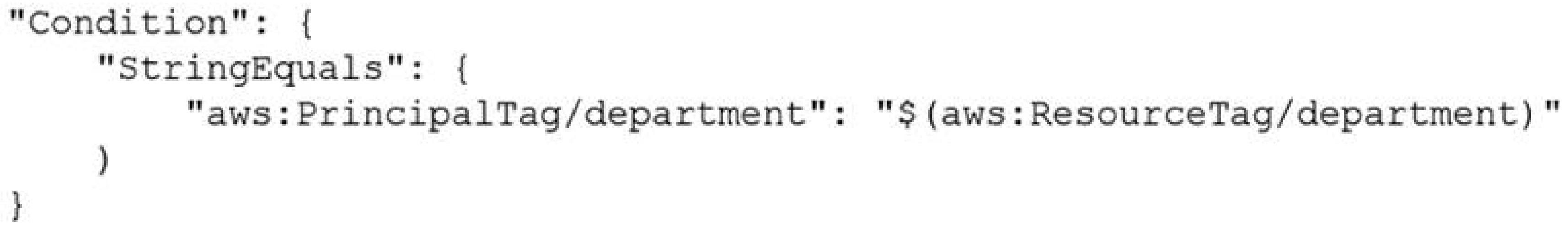
Explanation:
https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/SubscriptionFilters.html#La mbdaFunctionExample
https://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/SubscriptionFilters.html

NEW QUESTION 125
A company has multiple AWS accounts. The company uses AWS IAM Identity Center (AWS Single Sign-On) that is integrated with AWS Toolkit for Microsoft Azure DevOps. The attributes for access control feature is enabled in IAM Identity Center.
The attribute mapping list contains two entries. The department key is mapped to
${path:enterprise.department}. The costCenter key is mapped to
${path:enterprise.costCenter}.
All existing Amazon EC2 instances have a department tag that corresponds to three company departments (d1, d2, d3). A DevOps engineer must create policies based on the matching attributes. The policies must minimize administrative effort and must grant each Azure AD user access to only the EC2 instances that are tagged with the user's respective department name.
Which condition key should the DevOps engineer include in the custom permissions policies to meet these requirements?
A.



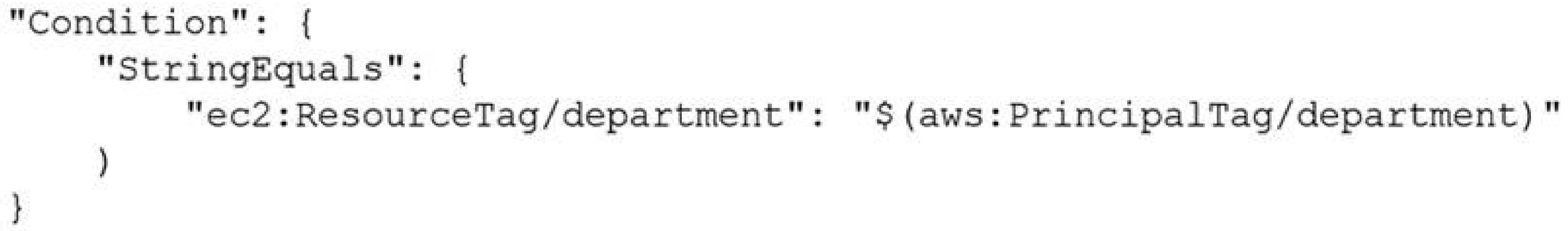
```
"Condition": {
    "ForAllValues:StringEquals": {
        "aws:TagKeys": ["department"]
    )
}
```

B.



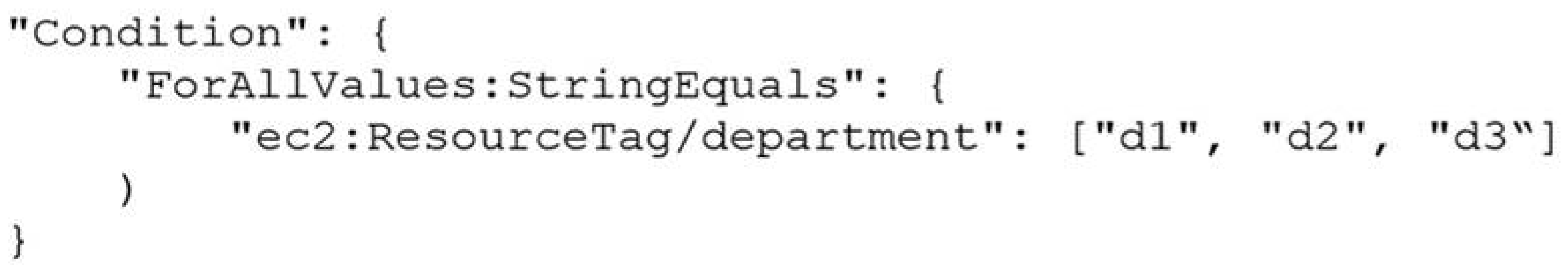
```
"Condition": {
    "StringEquals": {
        "aws:PrincipalTag/department": "$(aws:ResourceTag/department)"
    )
}
```

C.



```
"Condition": {
    "StringEquals": {
        "ec2:ResourceTag/department": "$(aws:PrincipalTag/department)"
    )
}
```

D.



```
"Condition": {
     "ForAllValues:StringEquals": {
          "ec2:ResourceTag/department": ["d1", "d2", "d3“]
     )
 }
```

A.

Answer: C

Explanation:
https://docs.aws.amazon.com/singlesignon/latest/userguide/configure- abac.html

NEW QUESTION 130
A DevOps engineer needs to back up sensitive Amazon S3 objects that are stored within an S3 bucket with a private bucket policy using S3 cross-Region replication functionality. The objects need to be copied to a target bucket in a different AWS Region and account.
Which combination of actions should be performed to enable this replication? (Choose three.)

A. Create a replication IAM role in the source account
B. Create a replication I AM role in the target account.
C. Add statements to the source bucket policy allowing the replication IAM role to replicate objects.
D. Add statements to the target bucket policy allowing the replication IAM role to replicate objects.
E. Create a replication rule in the source bucket to enable the replication.
F. Create a replication rule in the target bucket to enable the replication.

Answer: ADE

Explanation:
S3 cross-Region replication (CRR) automatically replicates data between buckets across different AWS Regions. To enable CRR, you need to add a replication configuration to your source bucket that specifies the destination bucket, the IAM role, and the encryption type (optional). You also need to grant permissions to the IAM role to perform replication actions on both the source and destination buckets. Additionally, you can choose the destination storage class and enable additional replication options such as S3 Replication Time Control (S3 RTC) or S3 Batch Replication. https://medium.com/cloud-techies/s3-same-region-replication-srr-and-cross-region-replication-crr-34d446806bab https://aws.amazon.com/getting-started/hands-on/replicate-data-using-amazon-s3- replication/ https://docs.aws.amazon.com/AmazonS3/latest/userguide/replication.html

NEW QUESTION 131
A company has deployed a critical application in two AWS Regions. The application uses an Application Load Balancer (ALB) in both Regions. The company has Amazon Route 53 alias DNS records for both ALBs.
The company uses Amazon Route 53 Application Recovery Controller to ensure that the application can fail over between the two Regions. The Route 53 ARC configuration includes a routing control for both Regions. The company uses Route 53 ARC to perform quarterly disaster recovery (DR) tests.
During the most recent DR test, a DevOps engineer accidentally turned off both routing controls. The company needs to ensure that at least one routing control is turned on at all times.
Which solution will meet these requirements?

A. In Route 53 AR
B. create a new assertion safety rul
C. Apply the assertion safety rule to the two routing control
D. Configure the rule with the ATLEAST type with a threshold of 1.
E. In Route 53 ARC, create a new gating safety rul
F. Apply the assertion safety rule to the two routing control
G. Configure the rule with the OR type with a threshold of 1.
H. In Route 53 ARC, create a new resource se
I. Configure the resource set with an AWS: Route53: HealthCheck resource typ
J. Specify the ARNs of the two routing controls as the target resourc
K. Create a new readiness check for the resource set.
L. In Route 53 ARC, create a new resource se
M. Configure the resource set with an AWS: Route53RecoveryReadiness: DNSTargetResource resource typ
N. Add the domain names of the two Route 53 alias DNS records as the target resourc
O. Create a new readiness check for the resource set.

Answer: A

Explanation:
The correct solution is to create a new assertion safety rule in Route 53 ARC and apply it to the two routing controls. An assertion safety rule is a type of safety rule that ensures that a minimum number of routing controls are always enabled. The ATLEAST type of assertion safety rule specifies the minimum number of routing controls that must be enabled for the rule to evaluate as healthy. By setting the threshold to 1, the rule ensures that at least one routing control is always turned on. This prevents the scenario where both routing controls are accidentally turned off and the application becomes unavailable in both Regions.
The other solutions are incorrect because they do not use safety rules to prevent both routing controls from being turned off. A gating safety rule is a type of safety rule that prevents routing control state changes that violate the rule logic. The OR type of gating safety rule specifies that one or more routing controls must be enabled for the rule to evaluate as healthy. However, this rule does not prevent a user from turning off both routing controls manually. A resource set is a collection of resources that are tested for readiness by Route 53 ARC. A readiness check is a test that verifies that all the resources in a resource set are operational. However, these concepts are not related to routing control states or safety rules. Therefore, creating a new resource set and a new readiness check will not ensure that at least one routing control is turned on at all times. References:
? Routing control in Amazon Route 53 Application Recovery Controller
? Viewing and updating routing control states in Route 53 ARC

? Creating a control panel in Route 53 ARC
? Creating safety rules in Route 53 ARC

NEW QUESTION 135

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