

Exam Questions DOP-C02

AWS Certified DevOps Engineer - Professional

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NEW QUESTION 1

A company uses a single AWS account to 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 the DevOps engineer do next to meet these requirements?

- A. Create an Amazon EventBridge rule that matches an AWS Config evaluation result of NON_COMPLIANT for the restricted-ssh rule
- B. Configure an input transformer for the EventBridge rule
- C. Configure the EventBridge rule to publish a notification to the SNS topic.
- D. Configure AWS Config to send all evaluation results for the restricted-ssh rule to the SNS topic. 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 2

A company has many applications. Different teams in the company developed the applications by using multiple languages and frameworks. The applications run on premises and on different servers with different operating systems. Each team has its own release protocol and process. The company wants to reduce the complexity of the release and maintenance of these applications.

The company is migrating its technology stacks, including these applications, to AWS. The company wants centralized control of source code, a consistent and automatic delivery pipeline, and as few maintenance tasks as possible on the underlying infrastructure.

What should a DevOps engineer do to meet these requirements?

- A. Create one AWS CodeCommit repository for all applications
- B. Put each application's code in a different branch
- C. Merge the branches, and use AWS CodeBuild to build the application
- D. Use AWS CodeDeploy to deploy the applications to one centralized application server.
- E. Create one AWS CodeCommit repository for each of the applications
- F. Use AWS CodeBuild to build the applications one at a time
- G. Use AWS CodeDeploy to deploy the applications to one centralized application server.
- H. Create one AWS CodeCommit repository for each of the applications
- I. Use AWS CodeBuild to build the applications one at a time and to create one AMI for each server
- J. Use AWS CloudFormation StackSets to automatically provision and deprovision Amazon EC2 fleets by using these AMIs.
- K. Create one AWS CodeCommit repository for each of the applications
- L. Use AWS CodeBuild to build one Docker image for each application in Amazon Elastic Container Registry (Amazon ECR). Use AWS CodeDeploy to deploy the applications to Amazon Elastic Container Service (Amazon ECS) on infrastructure that AWS Fargate manages.

Answer: D

Explanation:

because of "as few maintenance tasks as possible on the underlying infrastructure". Fargate does that better than "one centralized application server"

NEW QUESTION 3

An application runs on Amazon EC2 instances behind an Application Load Balancer (ALB). A DevOps engineer is using AWS CodeDeploy to release a new version. The deployment fails during the AllowTraffic lifecycle event, but a cause for the failure is not indicated in the deployment logs.

What would cause this?

- A. The application
- B. The .yaml file contains an invalid script that runs in the AllowTraffic lifecycle hook.
- C. The user who initiated the deployment does not have the necessary permissions to interact with the ALB.
- D. The health checks specified for the ALB target group are misconfigured.
- E. The CodeDeploy agent was not installed in the EC2 instances that are part of the ALB target group.

Answer: C

Explanation:

This failure is typically due to incorrectly configured health checks in Elastic Load Balancing for the Classic Load Balancer, Application Load Balancer, or Network Load Balancer used to manage traffic for the deployment group. To resolve the issue, review and correct any errors in the health check configuration for the load balancer.

<https://docs.aws.amazon.com/codedeploy/latest/userguide/troubleshooting-deployments.html#troubleshooting-d>

NEW QUESTION 4

A company has an application that is using a MySQL-compatible Amazon Aurora Multi-AZ DB cluster as the database. A cross-Region read replica has been created for disaster recovery purposes. A DevOps engineer wants to automate the promotion of the replica so it becomes the primary database instance in the event of a failure.

Which solution will accomplish this?

- A. Configure a latency-based Amazon Route 53 CNAME with health checks so it points to both the primary and replica endpoint
- B. Subscribe an Amazon SNS topic to Amazon RDS failure notifications from AWS CloudTrail and use that topic to invoke an AWS Lambda function that will promote the replica instance as the primary.
- C. Create an Aurora custom endpoint to point to the primary database instance
- D. Configure the application to use this endpoint
- E. Configure AWS CloudTrail to run an AWS Lambda function to promote the replica instance and modify the custom endpoint to point to the newly promoted instance.
- F. Create an AWS Lambda function to modify the application's AWS CloudFormation template to promote the replica, apply the template to update the stack, and point the application to the newly promoted instance
- G. Create an Amazon CloudWatch alarm to invoke this Lambda function after the failure event occurs.
- H. Store the Aurora endpoint in AWS Systems Manager Parameter Store
- I. Create an Amazon EventBridge event that detects the database failure and runs an AWS Lambda function to promote the replica instance and update the endpoint URL stored in AWS Systems Manager Parameter Store
- J. Code the application to reload the endpoint from Parameter Store if a database connection fails.

Answer: D

Explanation:

EventBridge is needed to detect the database failure. Lambda is needed to promote the replica as it's in another Region (manual promotion, otherwise). Storing and updating the endpoint in Parameter store is important in updating the application. Look at High Availability section of Aurora FAQ:
<https://aws.amazon.com/rds/aurora/faqs/>

NEW QUESTION 5

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

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

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

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

Answer: C

Explanation:

[https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-importvalue.h](https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-importvalue.html)

[https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-importvalue.h](https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference-importvalue.html)

CF of network exports the VPC, subnet or needed information CF of application imports the above information to its stack and UpdateChangeSet/ExecuteChangeSet

NEW QUESTION 6

A company wants to set up a continuous delivery pipeline. The company stores application code in a private GitHub repository. The company needs to deploy the application components to Amazon Elastic Container Service (Amazon ECS), Amazon EC2, and AWS Lambda. The pipeline must support manual approval actions.

Which solution will meet these requirements?

- A. Use AWS CodePipeline with Amazon EC2
- B. Amazon EC2, and Lambda as deploy providers.
- C. Use AWS CodePipeline with AWS CodeDeploy as the deploy provider.
- D. Use AWS CodePipeline with AWS Elastic Beanstalk as the deploy provider.
- E. Use AWS CodeDeploy with GitHub integration to deploy the application.

Answer: B

Explanation:

<https://docs.aws.amazon.com/codedeploy/latest/userguide/deployment-steps.html>

NEW QUESTION 7

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 a script 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 8

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 9

A DevOps engineer at a company is supporting an AWS environment in which all users use AWS IAM Identity Center (AWS Single Sign-On). The company wants to immediately disable credentials of any new IAM user and wants the security team to receive a notification.

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

- A. Create an Amazon EventBridge rule that reacts to an IAM CreateUser API call in AWS CloudTrail.
- B. Create an Amazon EventBridge rule that reacts to an IAM GetLoginProfile API call in AWS CloudTrail.
- C. Create an AWS Lambda function that is a target of the EventBridge rul
- D. Configure the Lambda function to disable any access keys and delete the login profiles that are associated with the IAM user.
- E. Create an AWS Lambda function that is a target of the EventBridge rul
- F. Configure the Lambda function to delete the login profiles that are associated with the IAM user.
- G. Create an Amazon Simple Notification Service (Amazon SNS) topic that is a target of the EventBridge rul
- H. Subscribe the security team's group email address to the topic.
- I. Create an Amazon Simple Queue Service (Amazon SQS) queue that is a target of the Lambda function.Subscribe the security team's group email address to the queue.

Answer: ACE

NEW QUESTION 10

An ecommerce company is receiving reports that its order history page is experiencing delays in reflecting the processing status of orders. The order processing system consists of an AWS Lambda function that uses reserved concurrency. The Lambda function processes order messages from an Amazon Simple Queue Service (Amazon SQS) queue and inserts processed orders into an Amazon DynamoDB table. The DynamoDB table has auto scaling enabled for read and write

capacity.

Which actions should a DevOps engineer take to resolve this delay? (Choose two.)

- A. Check the ApproximateAgeOfOldestMessage metric for the SQS queue
- B. Increase the Lambda function concurrency limit.
- C. Check the ApproximateAgeOfOldestMessage metric for the SQS queue Configure a redrive policy on the SQS queue.
- D. Check the NumberOfMessagesSent metric for the SQS queue
- E. Increase the SQS queue visibility timeout.
- F. Check the WriteThrottleEvents metric for the DynamoDB table
- G. Increase the maximum write capacity units (WCUs) for the table's scaling policy.
- H. Check the Throttles metric for the Lambda function
- I. Increase the Lambda function timeout.

Answer: AD

Explanation:

A: If the ApproximateAgeOfOldestMessages indicate that orders are remaining in the SQS queue for longer than expected, the reserved concurrency limit may be set too small to keep up with the number of orders entering the queue and is being throttled. D: The DynamoDB table is using Auto Scaling. With Auto Scaling, you create a scaling policy that specifies whether you want to scale read capacity or write capacity (or both), and the minimum and maximum provisioned capacity unit settings for the table. The ThrottledWriteRequests metric will indicate if there is a throttling issue on the DynamoDB table, which can be resolved by increasing the maximum write capacity units for the table's Auto Scaling policy. <https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/AutoScaling.html>

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 main 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 for 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 15

A company has developed a serverless web application that is hosted on AWS. The application consists of Amazon S3, Amazon API Gateway, several AWS Lambda functions, and an Amazon RDS for MySQL database. The company is using AWS CodeCommit to store the source code. The source code is a combination of AWS Serverless Application Model (AWS SAM) templates and Python code.

A security audit and penetration test reveal that user names and passwords for authentication to the database are hardcoded within CodeCommit repositories. A DevOps engineer must implement a solution to automatically detect and prevent hardcoded secrets.

What is the MOST secure solution that meets these requirements?

- A. Enable Amazon CodeGuru Profile
- B. Decorate the handler function with `@with_lambda_profiler()`. Manually review the recommendation report
- C. Write the secret to AWS Systems Manager Parameter Store as a secure string
- D. Update the SAM templates and the Python code to pull the secret from Parameter Store.
- E. Associate the CodeCommit repository with Amazon CodeGuru Reviewer
- F. Manually check the code review for any recommendation
- G. Choose the option to protect the secret
- H. Update the SAM templates and the Python code to pull the secret from AWS Secrets Manager.
- I. Enable Amazon CodeGuru Profile
- J. Decorate the handler function with `@with_lambda_profiler()`. Manually review the recommendation report
- K. Choose the option to protect the secret
- L. Update the SAM templates and the Python code to pull the secret from AWS Secrets Manager.
- M. Associate the CodeCommit repository with Amazon CodeGuru Reviewer
- N. Manually check the code review for any recommendation
- O. Write the secret to AWS Systems Manager Parameter Store as a string
- P. Update the SAM templates and the Python code to pull the secret from Parameter Store.

Answer: B

Explanation:

<https://docs.aws.amazon.com/codecommit/latest/userguide/how-to-amazon-codeguru-reviewer.html>

NEW QUESTION 19

A company is deploying a new application that uses Amazon EC2 instances. The company needs a solution to query application logs and AWS account API activity Which solution will meet these requirements?

- A. Use the Amazon CloudWatch agent to send logs from the EC2 instances to Amazon CloudWatch Logs Configure AWS CloudTrail to deliver the API logs to Amazon S3 Use CloudWatch to query both sets of logs.
- B. Use the Amazon CloudWatch agent to send logs from the EC2 instances to Amazon CloudWatch Logs Configure AWS CloudTrail to deliver the API logs to CloudWatch Logs Use CloudWatch Logs Insights to query both sets of logs.
- C. Use the Amazon CloudWatch agent to send logs from the EC2 instances to Amazon Kinesis Configure AWS CloudTrail to deliver the API logs to Kinesis Use Kinesis to load the data into Amazon Redshift Use Amazon Redshift to query both sets of logs.
- D. Use the Amazon CloudWatch agent to send logs from the EC2 instances to Amazon S3 Use AWS CloudTrail to deliver the API logs to Amazon S3 Use

Amazon Athena to query both sets of logs in Amazon S3.

Answer: D

Explanation:

This solution will meet the requirements because it will use Amazon S3 as a common data lake for both the application logs and the API logs. Amazon S3 is a service that provides scalable, durable, and secure object storage for any type of data. You can use the Amazon CloudWatch agent to send logs from your EC2 instances to S3 buckets, and use AWS CloudTrail to deliver the API logs to S3 buckets as well. You can also use Amazon Athena to query both sets of logs in S3 using standard SQL, without loading or transforming them. Athena is a serverless interactive query service that allows you to analyze data in S3 using a variety of data formats, such as JSON, CSV, Parquet, and ORC.

NEW QUESTION 24

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

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

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 29

A company recently migrated its legacy application from on-premises to AWS. The application is hosted on Amazon EC2 instances behind an Application Load Balancer which is behind Amazon API Gateway. The company wants to ensure users experience minimal disruptions during any deployment of a new version of the application. The company also wants to ensure it can quickly roll back updates if there is an issue.

Which solution will meet these requirements with MINIMAL changes to the application?

- A. Introduce changes as a separate environment parallel to the existing one Configure API Gateway to use a canary release deployment to send a small subset of user traffic to the new environment.
- B. Introduce changes as a separate environment parallel to the existing one Update the application's DNS alias records to point to the new environment.
- C. Introduce changes as a separate target group behind the existing Application Load Balancer Configure API Gateway to route user traffic to the new target group in steps.
- D. Introduce changes as a separate target group behind the existing Application Load Balancer ConfigureAPI Gateway to route all traffic to the Application Load Balancer which then sends the traffic to the new target group.

Answer: A

Explanation:

API Gateway supports canary deployment on a deployment stage before you direct all traffic to that stage. A parallel environment means we will create a new ALB and a target group that will target a new set of EC2 instances on which the newer version of the app will be deployed. So the canary setting associated to the new version of the API will connect with the new ALB instance which in turn will direct the traffic to the new EC2 instances on which the newer version of the application is deployed.

NEW QUESTION 31

A company manages AWS accounts for application teams in AWS Control Tower. Individual application teams are responsible for securing their respective AWS accounts.

A DevOps engineer needs to enable Amazon GuardDuty for all AWS accounts in which the application teams have not already enabled GuardDuty. The DevOps engineer is using AWS CloudFormation StackSets from the AWS Control Tower management account.

How should the DevOps engineer configure the CloudFormation template to prevent failure during the StackSets deployment?

- A. Create a CloudFormation custom resource that invokes an AWS Lambda functio
- B. Configure the Lambda function to conditionally enable GuardDuty if GuardDuty is not already enabled in the accounts.
- C. Use the Conditions section of the CloudFormation template to enable GuardDuty in accounts where GuardDuty is not already enabled.
- D. Use the CloudFormation F
- E. GetAtt intrinsic function to check whether GuardDuty is already enabled If GuardDuty is not already enabled use the Resources section of the CloudFormation template to enable GuardDuty.
- F. Manually discover the list of AWS account IDs where GuardDuty is not enabled Use the CloudFormation Fn: ImportValue intrinsic function to import the list of account IDs into the CloudFormation template to skip deployment for the listed AWS accounts.

Answer: A

Explanation:

This solution will meet the requirements because it will use a CloudFormation custom resource to execute custom logic during the stack set operation. A custom resource is a resource that you define in your template and that is associated with an AWS Lambda function. The Lambda function runs whenever the custom resource is created, updated, or deleted, and can perform any actions that are supported by the AWS SDK. In this case, the Lambda function can use the GuardDuty API to check whether GuardDuty is already enabled in each target account, and if not, enable it. This way, the DevOps engineer can avoid deploying the stack set to accounts that already have GuardDuty enabled, and prevent failure during the deployment.

NEW QUESTION 36

A company has an on-premises application that is written in Go. A DevOps engineer must move the application to AWS. The company's development team wants to enable blue/green deployments and perform A/B testing. Which solution will meet these requirements?

- A. Deploy the application on an Amazon EC2 instance, and create an AMI of the instance
- B. Use the AMI to create an automatic scaling launch configuration that is used in an Auto Scaling group
- C. Use Elastic Load Balancing to distribute traffic
- D. When changes are made to the application, a new AMI will be created, which will initiate an EC2 instance refresh.
- E. Use Amazon Lightsail to deploy the application
- F. Store the application in a zipped format in an Amazon S3 bucket
- G. Use this zipped version to deploy new versions of the application to Lightsail
- H. Use Lightsail deployment options to manage the deployment.
- I. Use AWS CodeArtifact to store the application code
- J. Use AWS CodeDeploy to deploy the application to a fleet of Amazon EC2 instances
- K. Use Elastic Load Balancing to distribute the traffic to the EC2 instance
- L. When making changes to the application, upload a new version to CodeArtifact and create a new CodeDeploy deployment.
- M. Use AWS Elastic Beanstalk to host the application
- N. Store a zipped version of the application in Amazon S3. Use that location to deploy new versions of the application
- O. Use Elastic Beanstalk to manage the deployment options.

Answer: D

Explanation:

<https://aws.amazon.com/quickstart/architecture/blue-green-deployment/>

NEW QUESTION 40

A company is implementing AWS CodePipeline to automate its testing process. The company wants to be notified when the execution state fails and used the following custom event pattern in Amazon EventBridge:

```
{
  "source": [
    "aws.codepipeline"
  ],
  "detail-type": [
    "CodePipeline Action Execution State Change"
  ],
  "detail": {
    "state": [
      "FAILED"
    ],
    "type": {
      "category": ["Approval"]
    }
  }
}
```

Which type of events will match this event pattern?

- A. Failed deploy and build actions across all the pipelines
- B. All rejected or failed approval actions across all the pipelines
- C. All the events across all pipelines
- D. Approval actions across all the pipelines

Answer: B

Explanation:

Action-level states in events

| Action state | Description |
|--------------|---|
| STARTED | The action is currently running. |
| SUCCEEDED | The action was completed successfully. |
| FAILED | For Approval actions, the FAILED state means the action was either rejected by the reviewer or failed due to an incorrect action configuration. |
| CANCELED | The action was canceled because the pipeline structure was updated. |

NEW QUESTION 41

A company wants to use a grid system for a proprietary enterprise in-memory data store on top of AWS. This system can run in multiple server nodes in any Linux-based distribution. The system must be able to reconfigure the entire cluster every time a node is added or removed. When adding or removing nodes an `/etc./cluster/nodes` config file must be updated listing the IP addresses of the current node members of that cluster.

The company wants to automate the task of adding new nodes to a cluster. What can a DevOps engineer do to meet these requirements?

- A. Use AWS OpsWorks Stacks to layer the server nodes of that cluster
- B. Create a Chef recipe that populates the content of the `/etc./cluster/nodes` config file and restarts the service by using the current members of the layer
- C. Assign that recipe to the Configure lifecycle event.
- D. Put the file nodes config in version control
- E. Create an AWS CodeDeploy deployment configuration and deployment group based on an Amazon EC2 tag value for the cluster node
- F. When adding a new node to the cluster update the file with all tagged instances and make a commit in version control

- G. Deploy the new file and restart the services.
- H. Create an Amazon S3 bucket and upload a version of the `/etc./cluster/nodes` config file Create a crontab script that will poll for that S3 file and download it frequently
- I. Use a process manager such as Monit or system, to restart the cluster services when it detects that the new file was modified
- J. When adding a node to the cluster edit the file's most recent members Upload the new file to the S3 bucket.
- K. Create a user data script that lists all members of the current security group of the cluster and automatically updates the `/etc/cluster/. nodes` config
- L. Trigger whenever a new instance is added to the cluster.

Answer: A

Explanation:

You can run custom recipes manually, but the best approach is usually to have AWS OpsWorks Stacks run them automatically. Every layer has a set of built-in recipes assigned each of five lifecycle events—Setup, Configure, Deploy, Undeploy, and Shutdown. Each time an event occurs for an instance, AWS OpsWorks Stacks runs the associated recipes for each of the instance's layers, which handle the corresponding tasks. For example, when an instance finishes booting, AWS OpsWorks Stacks triggers a Setup event. This event runs the associated layer's Setup recipes, which typically handle tasks such as installing and configuring packages

NEW QUESTION 46

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 CloudFormation
- 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:*` action
- 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` permission
- 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 48

A company recently created a new AWS Control Tower landing zone in a new organization in AWS Organizations. The landing zone must be able to demonstrate compliance with the Center for Internet Security (CIS) Benchmarks for AWS Foundations.

The company's security team wants to use AWS Security Hub to view compliance across all accounts. Only the security team can be allowed to view aggregated Security Hub Findings. In addition, specific users must be able to view findings from their own accounts within the organization. All accounts must be enrolled in Security Hub after the accounts are created.

Which combination of steps will meet these requirements in the MOST automated way? (Select THREE.)

- A. Turn on trusted access for Security Hub in the organization's management account
- B. Create a new security account by using AWS Control Tower. Configure the new security account as the delegated administrator account for Security Hub
- C. In the new security account, provide
- D. Security Hub with the CIS Benchmarks for AWS Foundations standards.
- E. Turn on trusted access for Security Hub in the organization's management account
- F. From the management account, provide Security Hub with the CIS Benchmarks for AWS Foundations standards.
- G. Create an AWS IAM identity Center (AWS Single Sign-On) permission set that includes the required permissions. Use the `CreateAccountAssignment` API operation to associate the security team users with the permission set and with the delegated security account.
- H. Create an SCP that explicitly denies any user who is not on the security team from accessing Security Hub.
- I. In Security Hub, turn on automatic enablement.
- J. In the organization's management account, create an Amazon EventBridge rule that reacts to the `CreateManagedAccount` event. Create an AWS Lambda function that uses the Security Hub `CreateMembers` API operation to add new accounts to Security Hub
- K. Configure the EventBridge rule to invoke the Lambda function.

Answer: ACE

Explanation:

<https://docs.aws.amazon.com/securityhub/latest/userguide/accounts-orgs-auto-enable.html>

NEW QUESTION 50

A DevOps engineer manages a large commercial website that runs on Amazon EC2. The website uses Amazon Kinesis Data Streams to collect and process web logs. The DevOps engineer manages the Kinesis consumer application, which also runs on Amazon EC2.

Sudden increases of data cause the Kinesis consumer application to fall behind and the Kinesis data streams drop records before the records can be processed. The DevOps engineer must implement a solution to improve stream handling.

Which solution meets these requirements with the MOST operational efficiency?

- A. Modify the Kinesis consumer application to store the logs durably in Amazon S3. Use Amazon EMR to process the data directly on Amazon S3 to derive customer insights. Store the results in Amazon S3.
- B. Horizontally scale the Kinesis consumer application by adding more EC2 instances based on the Amazon CloudWatch `GetRecordsIteratorAgeMilliseconds` metric. Increase the retention period of the Kinesis data streams.
- C. Convert the Kinesis consumer application to run as an AWS Lambda function
- D. Configure the Kinesis data streams as the event source for the Lambda function to process the data streams
- E. Increase the number of shards in the Kinesis data streams to increase the overall throughput so that the consumer application processes the data faster.

Answer: B

Explanation:

<https://docs.aws.amazon.com/streams/latest/dev/monitoring-with-cloudwatch.html> GetRecords.IteratorAgeMilliseconds - The age of the last record in all GetRecords calls made against a Kinesis stream, measured over the specified time period. Age is the difference between the current time and when the last record of the GetRecords call was written to the stream. The Minimum and Maximum statistics can be used to track the progress of Kinesis consumer applications. A value of zero indicates that the records being read are completely caught up.

NEW QUESTION 55

A company manages multiple AWS accounts in AWS Organizations. The company's security policy states that AWS account root user credentials for member accounts must not be used. The company monitors access to the root user credentials.

A recent alert shows that the root user in a member account launched an Amazon EC2 instance. A DevOps engineer must create an SCP at the organization's root level that will prevent the root user in member accounts from making any AWS service API calls.

Which SCP will meet these requirements?

A)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "*",
      "Resource": "*",
      "Condition": {
        "StringNotLike": { "aws:PrincipalArn": "arn:aws:iam::*:root" }
      }
    }
  ]
}
```

B)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "*",
      "Resource": "*",
      "Principal": { "AWS": "arn:aws:iam::*:root" }
    }
  ]
}
```

C)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "*",
      "Resource": "*",
      "Condition": {
        "StringLike": { "aws:PrincipalArn": "arn:aws:iam::*:root" }
      }
    }
  ]
}
```

D)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "*",
      "Resource": "*",
      "Principal": "root"
    }
  ]
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 57

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 bucket.
- 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 zone. Wait for DNS propagation to become complete.

Answer: D

NEW QUESTION 58

A DevOps engineer is working on a data archival project that requires the migration of on-premises data to an Amazon S3 bucket. The DevOps engineer develops a script that incrementally archives on-premises data that is older than 1 month to Amazon S3. Data that is transferred to Amazon S3 is deleted from the on-premises location. The script uses the S3 PutObject operation.

During a code review the DevOps engineer notices that the script does not verify whether the data was successfully copied to Amazon S3. The DevOps engineer must update the script to ensure that data is not corrupted during transmission. The script must use MD5 checksums to verify data integrity before the on-premises data is deleted.

Which solutions for the script will meet these requirements? (Select TWO.)

- A. Check the returned response for the Versioned Compare the returned Versioned against the MD5 checksum.
- B. Include the MD5 checksum within the Content-MD5 parameter.
- C. Check the operation call's return status to find out if an error was returned.
- D. Include the checksum digest within the tagging parameter as a URL query parameter.
- E. Check the returned response for the ETag.
- F. Compare the returned ETag against the MD5 checksum.
- G. Include the checksum digest within the Metadata parameter as a name-value pair. After upload use the S3 HeadObject operation to retrieve metadata from the object.

Answer: BD

Explanation:

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

NEW QUESTION 60

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

Each application team in the company has its own AWS account for application hosting. The accounts are consolidated in an organization in AWS Organizations. One of the AWS Control Tower member accounts serves as a centralized DevOps account with CI/CD pipelines that application teams use to deploy applications to their respective target AWS accounts. An IAM role for deployment exists in the centralized DevOps account.

An application team is attempting to deploy its application to an Amazon Elastic Kubernetes Service (Amazon EKS) cluster in an application AWS account. An IAM role for deployment exists in the application AWS account. The deployment is through an AWS CodeBuild project that is set up in the centralized DevOps account. The CodeBuild project uses an IAM service role for CodeBuild. The deployment is failing with an Unauthorized error during attempts to connect to the cross-account EKS cluster from CodeBuild.

Which solution will resolve this error?

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

Answer: A

Explanation:

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

role for deployment in the centralized DevOps account. This is typically done using an IAM role trust policy that allows the destination account to assume the DevOps account role.

NEW QUESTION 65

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 IAM 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-34d446806ba> <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 66

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

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

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

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

Answer: AD

NEW QUESTION 68

The security team depends on AWS CloudTrail to detect sensitive security issues in the company's AWS account. The DevOps engineer needs a solution to auto-remediate CloudTrail being turned off in an AWS account.

What solution ensures the LEAST amount of downtime for the CloudTrail log deliveries?

- A. Create an Amazon EventBridge rule for the CloudTrail StopLogging event
- B. Create an AWS Lambda function that uses the AWS SDK to call StartLogging on the ARN of the resource in which StopLogging was called
- C. Add the Lambda function ARN as a target to the EventBridge rule.
- D. Deploy the AWS-managed CloudTrail-enabled AWS Config rule set with a periodic interval to 1 hour. Create an Amazon EventBridge rule for AWS Config rules compliance change
- E. Create an AWS Lambda function that uses the AWS SDK to call StartLogging on the ARN of the resource in which StopLogging was called
- F. Add the Lambda function ARN as a target to the EventBridge rule.
- G. Create an Amazon EventBridge rule for a scheduled event every 5 minutes
- H. Create an AWS Lambda function that uses the AWS SDK to call StartLogging on a CloudTrail trail in the AWS account
- I. Add the Lambda function ARN as a target to the EventBridge rule.
- J. Launch a t2 nano instance with a script running every 5 minutes that uses the AWS SDK to query CloudTrail in the current account
- K. If the CloudTrail trail is disabled have the script re-enable the trail.

Answer: A

Explanation:

<https://aws.amazon.com/blogs/mt/monitor-changes-and-auto-enable-logging-in-aws-cloudtrail/>

NEW QUESTION 72

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 application. Use AWS CodeDeploy to deploy the Lambda functions with the Canary10Percent15Minutes Deployment Preference Type
- B. Use Amazon CloudWatch alarms to monitor the health of the functions.
- C. Use AWS CloudFormation to publish a new stack update, and include Amazon CloudWatch alarms on all resources
- D. Set up an AWS CodePipeline approval action for a developer to verify and approve the AWS CloudFormation change set.
- E. Use AWS CloudFormation to publish a new version on every stack update, and include Amazon CloudWatch alarms on all resources
- F. Use the RoutingConfig property of the AWS::Lambda::Alias resource to update the traffic routing during the stack update.

- G. Use AWS CodeBuild to add sample event payloads for testing to the Lambda function
- H. Publish a new version of the functions, and include Amazon CloudWatch alarm
- I. Update the production alias to point to the new versio
- J. 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 73

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

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

Which solution will meet these requirements?

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

Answer: B

Explanation:

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

NEW QUESTION 75

A development team is using AWS CodeCommit to version control application code and AWS CodePipeline to orchestrate software deployments. The team has decided to use a remote main branch as the trigger for the pipeline to integrate code changes. A developer has pushed code changes to the CodeCommit repository, but noticed that the pipeline had no reaction, even after 10 minutes.

Which of the following actions should be taken to troubleshoot this issue?

- A. Check that an Amazon EventBridge rule has been created for the main branch to trigger the pipeline.
- B. Check that the CodePipeline service role has permission to access the CodeCommit repository.
- C. Check that the developer's IAM role has permission to push to the CodeCommit repository.
- D. Check to see if the pipeline failed to start because of CodeCommit errors in Amazon CloudWatch Logs.

Answer: A

Explanation:

When you create a pipeline from CodePipeline during the step-by-step it creates a CloudWatch Event rule for a given branch and repo like this:

```
{
  "source": [ "aws.codecommit"
],
  "detail-type": [
    "CodeCommit Repository State Change"
  ],
  "resources": [
    "arn:aws:codecommit:us-east-1:xxxxx:repo-name"
  ],
  "detail": {
    "event": [ "referenceCreated", "referenceUpdated"
  ],
  "referenceType": [ "branch"
  ],
  "referenceName": [ "master"
]
```

```
}  
}  
}  
https://docs.aws.amazon.com/codepipeline/latest/userguide/pipelines-trigger-source-repo-changes-console.html
```

NEW QUESTION 79

A company hosts its staging website using an Amazon EC2 instance backed with Amazon EBS storage. The company wants to recover quickly with minimal data losses in the event of network connectivity issues or power failures on the EC2 instance. Which solution will meet these requirements?

- A. Add the instance to an EC2 Auto Scaling group with the minimum, maximum, and desired capacity set to 1.
- B. Add the instance to an EC2 Auto Scaling group with a lifecycle hook to detach the EBS volume when the EC2 instance shuts down or terminates.
- C. Create an Amazon CloudWatch alarm for the StatusCheckFailed System metric and select the EC2 action to recover the instance.
- D. Create an Amazon CloudWatch alarm for the StatusCheckFailed Instance metric and select the EC2 action to reboot the instance.

Answer: C

Explanation:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-recover.html>

NEW QUESTION 84

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

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

Answer: C

Explanation:

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

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

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

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

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

NEW QUESTION 86

A DevOps team manages an API running on-premises that serves as a backend for an Amazon API Gateway endpoint. Customers have been complaining about high response latencies, which the development team has verified using the API Gateway latency metrics in Amazon CloudWatch. To identify the cause, the team needs to collect relevant data without introducing additional latency. Which actions should be taken to accomplish this? (Choose two.)

- A. Install the CloudWatch agent server side and configure the agent to upload relevant logs to CloudWatch.
- B. Enable AWS X-Ray tracing in API Gateway, modify the application to capture request segments, and upload those segments to X-Ray during each request.
- C. Enable AWS X-Ray tracing in API Gateway, modify the application to capture request segments, and use the X-Ray daemon to upload segments to X-Ray.
- D. Modify the on-premises application to send log information back to API Gateway with each request.
- E. Modify the on-premises application to calculate and upload statistical data relevant to the API service requests to CloudWatch metrics.

Answer: AC

Explanation:

<https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/install-CloudWatch-Agent-on-premise.htm>

<https://docs.aws.amazon.com/xray/latest/devguide/xray-api-sendingdata.html>

NEW QUESTION 87

A DevOps engineer used an AWS Cloud Formation custom resource to set up AD Connector. The AWS Lambda function ran and created AD Connector, but Cloud Formation is not transitioning from CREATE_IN_PROGRESS to CREATE_COMPLETE. Which action should the engineer take to resolve this issue?

- A. Ensure the Lambda function code has exited successfully.
- B. Ensure the Lambda function code returns a response to the pre-signed URL.
- C. Ensure the Lambda function IAM role has cloudformation UpdateStack permissions for the stack ARN.

D. Ensure the Lambda function IAM role has ds ConnectDirectory permissions for the AWS account.

Answer: B

NEW QUESTION 89

A company uses AWS CodePipeline pipelines to automate releases of its application. A typical pipeline consists of three stages: build, test, and deployment. The company has been using a separate AWS CodeBuild project to run scripts for each stage. However, the company now wants to use AWS CodeDeploy to handle the deployment stage of the pipelines.

The company has packaged the application as an RPM package and must deploy the application to a fleet of Amazon EC2 instances. The EC2 instances are in an EC2 Auto Scaling group and are launched from a common AMI.

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

- A. Create a new version of the common AMI with the CodeDeploy agent installed
- B. Update the IAM role of the EC2 instances to allow access to CodeDeploy.
- C. Create a new version of the common AMI with the CodeDeploy agent installed
- D. Create an AppSpec file that contains application deployment scripts and grants access to CodeDeploy.
- E. Create an application in CodeDeploy
- F. Configure an in-place deployment type
- G. Specify the Auto Scaling group as the deployment target
- H. Add a step to the CodePipeline pipeline to use EC2 Image Builder to create a new AMI
- I. Configure CodeDeploy to deploy the newly created AMI.
- J. Create an application in CodeDeploy
- K. Configure an in-place deployment type
- L. Specify the Auto Scaling group as the deployment target
- M. Update the CodePipeline pipeline to use the CodeDeploy action to deploy the application.
- N. Create an application in CodeDeploy
- O. Configure an in-place deployment type
- P. Specify the EC2 instances that are launched from the common AMI as the deployment target
- Q. Update the CodePipeline pipeline to use the CodeDeploy action to deploy the application.

Answer: AD

Explanation:

<https://docs.aws.amazon.com/codedeploy/latest/userguide/integrations-aws-auto-scaling.html>

NEW QUESTION 94

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- * DOP-C02 Practice Test Questions in Multiple Choice Formats and Updatesfor 1 Year