DOP-C02 Dumps

AWS Certified DevOps Engineer - Professional

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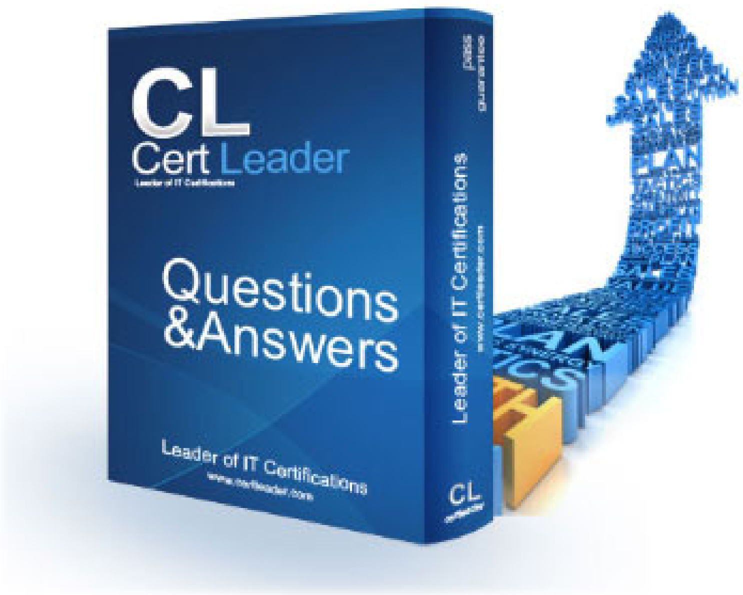

NEW QUESTION 1
A company requires an RPO of 2 hours and an RTO of 10 minutes for its data and application at all times. An application uses a MySQL database and Amazon EC2 web servers. The development team needs a strategy for failover and disaster recovery.
Which combination of deployment strategies will meet these requirements? (Select TWO.)

A. Create an Amazon Aurora cluster in one Availability Zone across multiple Regions as the data store Use Aurora's automatic recovery capabilities in the event of a disaster
B. Create an Amazon Aurora global database in two Regions as the data stor
C. In the event of a failure promote the secondary Region as the primary for the application.
D. Create an Amazon Aurora multi-master cluster across multiple Regions as the data stor
E. Use a Network Load Balancer to balance the database traffic in different Regions.
F. Set up the application in two Regions and use Amazon Route 53 failover-based routing that points to the Application Load Balancers in both Region
G. Use hearth checks to determine the availability in a given Regio
H. Use Auto Scaling groups in each Region to adjust capacity based on demand.
I. Set up the application m two Regions and use a multi-Region Auto Scaling group behind Application Load Balancers to manage the capacity based on deman
J. In the event of a disaster adjust the Auto Scaling group's desired instance count to increase baseline capacity in the failover Region.

Answer: BD

NEW QUESTION 2
A company has an application that runs on AWS Lambda and sends logs to Amazon CloudWatch Logs. An Amazon Kinesis data stream is subscribed to the log groups in CloudWatch Logs. A single consumer Lambda function processes the logs from the data stream and stores the logs in an Amazon S3 bucket.
The company's DevOps team has noticed high latency during the processing and ingestion of some logs.
Which combination of steps will reduce the latency? (Select THREE.)

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

Answer: ABC

Explanation:
The latency in processing and ingesting logs can be caused by several factors, such as the throughput of the Kinesis data stream, the concurrency of the Lambda function, and the configuration of the event source mapping. To reduce the latency, the following steps can be taken:
? Create a data stream consumer with enhanced fan-out. Set the Lambda function that processes the logs as the consumer. This will allow the Lambda function to receive records from the data stream with dedicated throughput of up to 2 MB per second per shard, independent of other consumers1. This will reduce the contention and delay in accessing the data stream.
? Increase the ParallelizationFactor setting in the Lambda event source mapping. This will allow the Lambda service to invoke more instances of the function concurrently to process the records from the data stream2. This will increase the processing capacity and reduce the backlog of records in the data stream.
? Configure reserved concurrency for the Lambda function that processes the logs. This will ensure that the function has enough concurrency available to handle the increased load from the data stream3. This will prevent the function from being throttled by the account-level concurrency limit.
The other options are not effective or may have negative impacts on the latency. Option D is not suitable because increasing the batch size in the Kinesis data stream will increase the amount of data that the Lambda function has to process in each invocation, which may increase the execution time and latency4. Option E is not advisable because turning off the ReportBatchItemFailures setting in the Lambda event source mapping will prevent the Lambda service from retrying the failed records, which may result in data loss. Option F is not necessary because increasing the number of shards in the Kinesis data stream will increase the throughput of the data stream, but it will not affect the processing speed of the Lambda function, which is the bottleneck in this scenario.
References:
? 1: Using AWS Lambda with Amazon Kinesis Data Streams - AWS Lambda
? 2: AWS Lambda event source mappings - AWS Lambda
? 3: Managing concurrency for a Lambda function - AWS Lambda
? 4: AWS Lambda function scaling - AWS Lambda
? : AWS Lambda event source mappings - AWS Lambda
? : Scaling Amazon Kinesis Data Streams with AWS CloudFormation - Amazon Kinesis Data Streams

NEW QUESTION 3
A company deploys a web application on Amazon EC2 instances that are behind an
Application Load Balancer (ALB). The company stores the application code in an AWS CodeCommit repository. When code is merged to the main branch, an AWS Lambda function invokes an AWS CodeBuild project. The CodeBuild project packages the code, stores the packaged code in AWS CodeArtifact, and invokes AWS Systems Manager Run Command to deploy the packaged code to the EC2 instances.
Previous deployments have resulted in defects, EC2 instances that are not running the latest version of the packaged code, and inconsistencies between instances.
Which combination of actions should a DevOps engineer take to implement a more reliable deployment solution? (Select TWO.)

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

Answer: AC

Explanation:
To implement a more reliable deployment solution, a DevOps engineer should take the following actions:
? Create a pipeline in AWS CodePipeline that uses the CodeCommit repository as a source provider. Configure pipeline stages that run the CodeBuild project in parallel to build and test the application. In the pipeline, pass the CodeBuild project output artifact to an AWS CodeDeploy action. This action will improve the deployment reliability by automating the entire process from code commit to deployment, reducing human errors and inconsistencies. By running the build and test stages in parallel, the pipeline can also speed up the delivery time and provide faster feedback. By using CodeDeploy as the deployment action, the pipeline can leverage the features of CodeDeploy, such as traffic shifting, health checks, rollback, and deployment configuration123
? Create an AWS CodeDeploy application and a deployment group to deploy the packaged code to the EC2 instances. Configure the ALB for the deployment group. This action will improve the deployment reliability by using CodeDeploy to orchestrate the deployment across multiple EC2 instances behind an ALB. CodeDeploy can perform blue/green deployments or in-place deployments with traffic shifting, which can minimize downtime and reduce risks. CodeDeploy can also monitor the health of the instances during and after the deployment, and automatically roll back if any issues are detected. By configuring the ALB for the deployment group, CodeDeploy can register and deregister instances from the load balancer as needed, ensuring that only healthy instances receive traffic45
The other options are not correct because they do not improve the deployment reliability or follow best practices. Creating separate pipeline stages that run a CodeBuild project to build and then test the application is not a good option because it will increase the pipeline execution time and delay the feedback loop. Creating individual Lambda functions that use CodeDeploy instead of Systems Manager to run build, test, and deploy actions is not a valid option because it will add unnecessary complexity and cost to the solution. Lambda functions are not designed for long-running tasks such as building or deploying applications. Creating an Amazon S3 bucket and modifying the CodeBuild project to store the packages in the S3 bucket instead of in CodeArtifact is not a necessary option because it will not affect the deployment reliability. CodeArtifact is a secure, scalable, and cost- effective package management service that can store and share software packages for application development67
References:
? 1: What is AWS CodePipeline? - AWS CodePipeline
? 2: Create a pipeline in AWS CodePipeline - AWS CodePipeline
? 3: Deploy an application with AWS CodeDeploy - AWS CodePipeline
? 4: What is AWS CodeDeploy? - AWS CodeDeploy
? 5: Configure an Application Load Balancer for your blue/green deployments - AWS CodeDeploy
? 6: What is AWS Lambda? - AWS Lambda
? 7: What is AWS CodeArtifact? - AWS CodeArtifact

NEW QUESTION 4
A company has a data ingestion application that runs across multiple AWS accounts. The accounts are in an organization in AWS Organizations. The company needs to monitor the application and consolidate access to the application. Currently the company is running the application on Amazon EC2 instances from several Auto Scaling groups. The EC2 instances have no access to the internet because the data is sensitive Engineers have deployed the necessary VPC endpoints. The EC2 instances run a custom AMI that is built specifically tor the application.
To maintain and troubleshoot the application, system administrators need the ability to log in to the EC2 instances. This access must be automated and controlled centrally. The company's security team must receive a notification whenever the instances are accessed.
Which solution will meet these requirements?

A. Create an Amazon EventBridge rule to send notifications to the security team whenever a user logs in to an EC2 instance Use EC2 Instance Connect to log in to the instance
B. Deploy Auto Scaling groups by using AWS Cloud Formation Use the cfn-init helper script to deploy appropriate VPC routes for external access Rebuild the custom AMI so that the custom AMI includes AWS Systems Manager Agent.
C. Deploy a NAT gateway and a bastion host that has internet access Create a security group that allows incoming traffic on all the EC2 instances from the bastion host Install AWS Systems Manager Agent on all the EC2 instances Use Auto Scaling group lifecycle hooks for monitoring and auditing access Use Systems Manager Session Manager to log into the instances Send logs to a log group m Amazon CloudWatch Log
D. Export data to Amazon S3 for auditing Send notifications to the security team by using S3 event notifications.
E. Use EC2 Image Builder to rebuild the custom AMI Include the most recent version of AWS Systems Manager Agent in the Image Configure the Auto Scaling group to attach the AmazonSSMManagedinstanceCore role to all the EC2 instances Use Systems Manager Session Manager to log in to the instances Enable logging of session details to Amazon S3 Create an S3 event notification for new file uploads to send a message to the security team through an Amazon Simple Notification Service (Amazon SNS) topic.
F. Use AWS Systems Manager Automation to build Systems Manager Agent into the custom AMI Configure AWS Configure to attach an SCP to the root organization account to allow the EC2 instances to connect to Systems Manager Use Systems Manager Session Manager to log in to the instances Enable logging of session details to Amazon S3 Create an S3 event notification for new file uploads to send a message to the security team through an Amazon Simple Notification Service (Amazon SNS) topic.

Answer: C

Explanation:
Even if AmazonSSMManagedInstanceCore is a managed policy and not an IAM role I will go with C because this policy is to be attached to an IAM role for EC2 to access System Manager.

NEW QUESTION 5
A company has a mobile application that makes HTTP API calls to an Application Load Balancer (ALB). The ALB routes requests to an AWS Lambda function. Many different versions of the application are in use at any given time, including versions that are in testing by a subset of users. The version of the application is defined in the user-agent header that is sent with all requests to the API.
After a series of recent changes to the API, the company has observed issues with the application. The company needs to gather a metric for each API operation by response code for each version of the application that is in use. A DevOps engineer has modified the Lambda function to extract the API operation name, version information from the user- agent header and response code.
Which additional set of actions should the DevOps engineer take to gather the required metrics?

A. Modify the Lambda function to write the API operation name, response code, and version number as a log line to an Amazon CloudWatch Logs log grou
B. Configure a CloudWatch Logs metric filter that increments a metric for each API operation nam
C. Specify response code and application version as dimensions for the metric.
D. Modify the Lambda function to write the API operation name, response code, and version number as a log line to an Amazon CloudWatch Logs log grou
E. Configure a CloudWatch Logs Insights query to populate CloudWatch metrics from the log line
F. Specify response code and application version as dimensions for the metric.
G. Configure the ALB access logs to write to an Amazon CloudWatch Logs log grou
H. Modify the Lambda function to respond to the ALB with the API operation name, response code, and version number as response metadat
I. Configure a CloudWatch Logs metric filter that increments a metric for each API operation nam
J. Specify response code and application version as dimensions for the metric.

K. Configure AWS X-Ray integration on the Lambda functio
L. Modify the Lambda function to create an X-Ray subsegment with the API operation name, response code, and version numbe
M. Configure X-Ray insights to extract an aggregated metric for each API operation name and to publish the metric to Amazon CloudWatc
N. Specify response code and application version as dimensions for the metric.

Answer: A

Explanation:
"Note that the metric filter is different from a log insights query, where the experience is interactive and provides immediate search results for the user to investigate.
No automatic action can be invoked from an insights query. Metric filters, on the other hand, will generate metric data in the form of a time series. This lets you create alarms that integrate into your ITSM processes, execute AWS Lambda functions, or even create anomaly detection models."
https://aws.amazon.com/blogs/mt/quantify-custom-application- metrics-with-amazon-cloudwatch-logs-and-metric-filters/

NEW QUESTION 6
A company has an application and a CI/CD pipeline. The CI/CD pipeline consists of an AWS CodePipeline pipeline and an AWS CodeBuild project. The CodeBuild project runs tests against the application as part of the build process and outputs a test report. The company must keep the test reports for 90 days.
Which solution will meet these requirements?

A. Add a new stage in the CodePipeline pipeline after the stage that contains the CodeBuild projec
B. Create an Amazon S3 bucket to store the report
C. Configure an S3 deploy action type in the new CodePipeline stage with the appropriate path and format for the reports.
D. Add a report group in the CodeBuild project buildspec file with the appropriate path and format for the report
E. Create an Amazon S3 bucket to store the report
F. Configure an Amazon EventBridge rule that invokes an AWS Lambda function to copy the reports to the S3 bucket when a build is complete
G. Create an S3 Lifecycle rule to expire the objects after 90 days.
H. Add a new stage in the CodePipeline pipelin
I. Configure a test action type with the appropriate path and format for the report
J. Configure the report expiration time to be 90 days in the CodeBuild project buildspec file.
K. Add a report group in the CodeBuild project buildspec file with the appropriate path and format for the report
L. Create an Amazon S3 bucket to store the report
M. Configure the report group as an artifact in the CodeBuild project buildspec fil
N. Configure the S3 bucket as the artifact destinatio
O. Set the object expiration to 90 days.

Answer: B

Explanation:
The correct solution is to add a report group in the AWS CodeBuild project buildspec file with the appropriate path and format for the reports. Then, create an Amazon S3 bucket to store the reports. You should configure an Amazon EventBridge rule that invokes an AWS Lambda function to copy the reports to the S3 bucket when a build is completed. Finally, create an S3 Lifecycle rule to expire the objects after 90 days. This approach allows for the automated transfer of reports to long-term storage and ensures
they are retained for the required duration without manual intervention1. References:
? AWS CodeBuild User Guide on test reporting1.
? AWS CodeBuild User Guide on working with report groups2.
? AWS Documentation on using AWS CodePipeline with AWS CodeBuild3.

NEW QUESTION 7
A DevOps engineer is creating an AWS CloudFormation template to deploy a web service. The web service will run on Amazon EC2 instances in a private subnet behind an Application Load Balancer (ALB). The DevOps engineer must ensure that the service can accept requests from clients that have IPv6 addresses.
What should the DevOps engineer do with the CloudFormation template so that IPv6 clients can access the web service?

A. Add an IPv6 CIDR block to the VPC and the private subnet for the EC2 instance
B. Create route table entries for the IPv6 network, use EC2 instance types that support IPv6, and assign IPv6 addresses to each EC2 instance.
C. Assign each EC2 instance an IPv6 Elastic IP addres
D. Create a target group, and add the EC2 instances as target
E. Create a listener on port 443 of the ALB, and associate the target group with the ALB.
F. Replace the ALB with a Network Load Balancer (NLB). Add an IPv6 CIDR block to the VPC and subnets for the NLB, and assign the NLB an IPv6 Elastic IP address.
G. Add an IPv6 CIDR block to the VPC and subnets for the AL
H. Create a listener on port 443. and specify the dualstack IP address type on the AL
I. Create a target group, and add the EC2 instances as target
J. Associate the target group with the ALB.

Answer: D

Explanation:
it involves adding an IPv6 CIDR block to the VPC and subnets for the ALB and specifying the dualstack IP address type on the ALB listener. This allows the ALB to listen on both IPv4 and IPv6 addresses, and forward requests to the EC2 instances that are added as targets to the target group associated with the ALB.

NEW QUESTION 8
A company deploys its corporate infrastructure on AWS across multiple AWS Regions and Availability Zones. The infrastructure is deployed on Amazon EC2 instances and connects with AWS IoT Greengrass devices. The company deploys additional resources on on- premises servers that are located in the corporate headquarters.
The company wants to reduce the overhead involved in maintaining and updating its resources. The company's DevOps team plans to use AWS Systems Manager to implement automated management and application of patches. The DevOps team confirms that Systems Manager is available in the Regions that the resources are deployed m Systems Manager also is available in a Region near the corporate headquarters.
Which combination of steps must the DevOps team take to implement automated patch and configuration management across the company's EC2 instances IoT devices and on- premises infrastructure? (Select THREE.)

A. Apply tags lo all the EC2 instance
B. AWS loT Greengrass devices, and on-premises server
C. Use Systems Manager Session Manager to push patches to all the tagged devices.
D. Use Systems Manager Run Command to schedule patching for the EC2 instances AWS loT Greengrass devices and on-premises servers.
E. Use Systems Manager Patch Manager to schedule patching loT the EC2 instances AWS loT Greengrass devices and on-premises servers as a Systems Manager maintenance window task.
F. Configure Amazon EventBridge to monitor Systems Manager Patch Manager for updates to patch baseline
G. Associate Systems Manager Run Command with the event lo initiate a patch action for all EC2 instances AWS loT Greengrass devices and on-premises servers.
H. Create an IAM instance profile for Systems Manager Attach the instance profile to all the EC2 instances in the AWS accoun
I. For the AWS loT Greengrass devices and on-premises servers create an IAM service role for Systems Manager.
J. Generate a managed-instance activation Use the Activation Code and Activation ID to install Systems Manager Agent (SSM Agent) on each server in the on-premises environment Update the AWS loT Greengrass IAM token exchange role Use the role to deploy SSM Agent on all the loT devices.

Answer: CEF

Explanation:
https://aws.amazon.com/blogs/mt/how-to-centrally-manage-aws-iot-greengrass-devices-using-aws-systems-manager/?force_isolation=true

NEW QUESTION 9
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 10
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 10
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 13
A company requires its internal business teams to launch resources through pre-approved AWS CloudFormation templates only. The security team requires automated monitoring when resources drift from their expected state.
Which strategy should be used to meet these requirements?

A. Allow users to deploy CloudFormation stacks using a CloudFormation service role onl
B. Use CloudFormation drift detection to detect when resources have drifted from their expected state.
C. Allow users to deploy CloudFormation stacks using a CloudFormation service role onl
D. Use AWS Config rules to detect when resources have drifted from their expected state.
E. Allow users to deploy CloudFormation stacks using AWS Service Catalog onl
F. Enforce the use of a launch constrain
G. Use AWS Config rules to detect when resources have drifted from their expected state.
H. Allow users to deploy CloudFormation stacks using AWS Service Catalog onl
I. Enforce the use of a template constrain
J. Use Amazon EventBridge notifications to detect when resources have drifted from their expected state.

Answer: C

Explanation:
The correct answer is C. Allowing users to deploy CloudFormation stacks using AWS Service Catalog only and enforcing the use of a launch constraint is the best way to ensure that the internal business teams launch resources through pre-approved CloudFormation templates only. AWS Service Catalog is a service that enables organizations to create and manage catalogs of IT services that are approved for use on AWS. A launch constraint is a rule that specifies the role that AWS Service Catalog assumes when launching a product.
By using a launch constraint, the DevOps engineer can control the permissions that the users have when launching a product. Using AWS Config rules to detect when resources have drifted from their expected state is the best way to automate the monitoring of the resources. AWS Config is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. AWS Config rules are custom or managed rules that AWS Config uses to evaluate whether your AWS resources comply with your desired configurations. By using AWS Config rules, the DevOps engineer can track the changes in the resources and identify any non-compliant resources.
Option A is incorrect because allowing users to deploy CloudFormation stacks using a CloudFormation service role only is not the best way to ensure that the internal business teams launch resources through pre-approved CloudFormation templates only. A CloudFormation service role is an IAM role that CloudFormation assumes to create, update, or delete the stack resources. By using a CloudFormation service role, the DevOps engineer can control the permissions that CloudFormation has when acting on the resources, but not the permissions that the users have when launching a stack. Therefore, option A does not prevent the users from launching resources that are not approved by the company. Using CloudFormation drift detection to detect when resources have drifted from their expected state is a valid way to monitor the resources, but it is not as automated and scalable as using AWS Config rules. CloudFormation drift detection is a feature that enables you to detect whether a stack's actual configuration differs, or has drifted, from its expected configuration. To use this feature, the DevOps engineer would need to manually initiate a drift detection operation on the stack or the stack resources, and then view the drift status and details in the CloudFormation console or API.
Option B is incorrect because allowing users to deploy CloudFormation stacks using a CloudFormation service role only is not the best way to ensure that the internal business teams launch resources through pre-approved CloudFormation templates only, as explained in option A. Using AWS Config rules to detect when resources have drifted from their expected state is a valid way to monitor the resources, as explained in option C. Option D is incorrect because enforcing the use of a template constraint is not the best way to ensure that the internal business teams launch resources through pre-approved CloudFormation templates only. A template constraint is a rule that defines the values or properties that users can specify when launching a product. By using a template constraint, the DevOps engineer can control the parameters that the users can provide when launching a product, but not the permissions that the users have when launching a product. Therefore, option D does not prevent the users from launching resources that are not approved by the company. Using Amazon EventBridge notifications to detect when resources have drifted from their expected state is a less reliable and consistent solution than using AWS Config rules. Amazon EventBridge is a service that enables you to connect your applications with data from a variety of sources. Amazon EventBridge can deliver a stream of real-time data from event sources, such as AWS services, and route
that data to targets, such as AWS Lambda functions. However, to use this solution, the DevOps engineer would need to configure the event source, the event bus, the event rule, and the event target for each resource type that needs to be monitored, which is more complex and error-prone than using AWS Config rules.

NEW QUESTION 16
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 21
A company has multiple development groups working in a single shared AWS account. The Senior Manager of the groups wants to be alerted via a third-party API call when the creation of resources approaches the service limits for the account.
Which solution will accomplish this with the LEAST amount of development effort?

A. Create an Amazon CloudWatch Event rule that runs periodically and targets an AWS Lambda functio
B. Within the Lambda function, evaluate the current state of the AWS environment and compare deployed resource values to resource limits on the accoun
C. Notify the Senior Manager if the account is approaching a service limit.
D. Deploy an AWS Lambda function that refreshes AWS Trusted Advisor checks, and configure an Amazon CloudWatch Events rule to run the Lambda function periodicall
E. Create another CloudWatch Events rule with an event pattern matching Trusted Advisor events and a target Lambda functio
F. In the target Lambda function, notify the Senior Manager.
G. Deploy an AWS Lambda function that refreshes AWS Personal Health Dashboard checks, and configure an Amazon CloudWatch Events rule to run the Lambda function periodicall
H. Create another CloudWatch Events rule with an event pattern matching Personal Health Dashboard events and a target Lambda functio
I. In the target Lambda function, notify the Senior Manager.
J. Add an AWS Config custom rule that runs periodically, checks the AWS service limit status, and streams notifications to an Amazon SNS topi
K. Deploy an AWS Lambda function that notifies the Senior Manager, and subscribe the Lambda function to the SNS topic.

Answer: B

Explanation:
To meet the requirements, the company needs to create a solution that alerts the Senior Manager when the creation of resources approaches the service limits for the account with the least amount of development effort. The company can use AWS Trusted Advisor, which is a service that provides best practice recommendations for cost optimization, performance, security, and service limits. The company can deploy an AWS Lambda function that refreshes Trusted

Advisor checks, and configure an Amazon CloudWatch Events rule to run the Lambda function periodically. This will ensure that Trusted Advisor checks are up to date and reflect the current state of the account. The company can then create another CloudWatch Events rule with an event pattern matching Trusted Advisor events and a target Lambda function. The event pattern can filter for events related to service limit checks and their status. The target Lambda function can notify the Senior Manager via a third-party API call if the event indicates that the account is approaching or exceeding a service limit.

NEW QUESTION 25
A company's DevOps engineer is creating an AWS Lambda function to process notifications from an Amazon Simple Notification Service (Amazon SNS) topic. The Lambda function will process the notification messages and will write the contents of the notification messages to an Amazon RDS Multi-AZ DB instance.
During testing a database administrator accidentally shut down the DB instance. While the database was down the company lost several of the SNS notification messages that were delivered during that time.
The DevOps engineer needs to prevent the loss of notification messages in the future Which solutions will meet this requirement? (Select TWO.)

A. Replace the RDS Multi-AZ DB instance with an Amazon DynamoDB table.
B. Configure an Amazon Simple Queue Service (Amazon SQS) queue as a destination of the Lambda function.
C. Configure an Amazon Simple Queue Service (Amazon SQS> dead-letter queue for the SNS topic.
D. Subscribe an Amazon Simple Queue Service (Amazon SQS) queue to the SNS topic Configure the Lambda function to process messages from the SQS queue.
E. Replace the SNS topic with an Amazon EventBridge event bus Configure an EventBridge rule on the new event bus to invoke the Lambda function for each event.

Answer: CD

Explanation:
These solutions will meet the requirement because they will prevent the loss of notification messages in the future. An Amazon SQS queue is a service that provides a reliable, scalable, and secure message queue for asynchronous communication between distributed components. You can use an SQS queue to buffer messages from an SNS topic and ensure that they are delivered and processed by a Lambda function, even if the function or the database is temporarily unavailable.
Option C will configure an SQS dead-letter queue for the SNS topic. A dead-letter queue is a queue that receives messages that could not be delivered to any subscriber after a specified number of retries. You can use a dead-letter queue to store and analyze failed messages, or to reprocess them later. This way, you can avoid losing messages that could not be delivered to the Lambda function due to network errors, throttling, or other issues. Option D will subscribe an SQS queue to the SNS topic and configure the Lambda function to process messages from the SQS queue. This will decouple the SNS topic from the Lambda function and provide more flexibility and control over the message delivery and processing. You can use an SQS queue to store messages from the SNS topic until they are ready to be processed by the Lambda function, and also to retry processing in case of failures. This way, you can avoid losing messages that could not be processed by the Lambda function due to database errors, timeouts, or other issues.

NEW QUESTION 27
A company provides an application to customers. The application has an Amazon API Gateway REST API that invokes an AWS Lambda function. On initialization, the Lambda function loads a large amount of data from an Amazon DynamoDB table. The data load process results in long cold-start times of 8-10 seconds. The DynamoDB table has DynamoDB Accelerator (DAX) configured.
Customers report that the application intermittently takes a long time to respond to requests. The application receives thousands of requests throughout the day. In the middle of the day, the application experiences 10 times more requests than at any other time of the day. Near the end of the day, the application's request volume decreases to 10% of its normal total.
A DevOps engineer needs to reduce the latency of the Lambda function at all times of the day.
Which solution will meet these requirements?

A. Configure provisioned concurrency on the Lambda function with a concurrency value of 1. Delete the DAX cluster for the DynamoDB table.
B. Configure reserved concurrency on the Lambda function with a concurrency value of 0.
C. Configure provisioned concurrency on the Lambda functio
D. Configure AWS Application Auto Scaling on the Lambda function with provisioned concurrency values set to a minimum of 1 and a maximum of 100.
E. Configure reserved concurrency on the Lambda functio
F. Configure AWS Application Auto Scaling on the API Gateway API with a reserved concurrency maximum value of 100.

Answer: C

Explanation:
The following are the steps that the DevOps engineer should take to reduce the latency of the Lambda function at all times of the day:
? Configure provisioned concurrency on the Lambda function.
? Configure AWS Application Auto Scaling on the Lambda function with provisioned concurrency values set to a minimum of 1 and a maximum of 100.
The provisioned concurrency setting ensures that there is always a minimum number of Lambda function instances available to handle requests. The Application Auto Scaling setting will automatically scale the number of Lambda function instances up or down based on the demand for the application.
This solution will ensure that the Lambda function is able to handle the increased load during the middle of the day, while also keeping the cold-start latency low.
The following are the reasons why the other options are not correct:
? Option A is incorrect because it will not reduce the cold-start latency of the Lambda function.
? Option B is incorrect because it will not scale the number of Lambda function instances up or down based on demand.
? Option D is incorrect because it will only configure reserved concurrency on the API Gateway API, which will not affect the Lambda function.

NEW QUESTION 32
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 36
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 41
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 togs 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 46
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 47
A company uses an organization in AWS Organizations that has all features enabled. The company uses AWS Backup in a primary account and uses an AWS Key Management Service (AWS KMS) key to encrypt the backups.
The company needs to automate a cross-account backup of the resources that AWS Backup backs up in the primary account. The company configures cross-account backup in the Organizations management account. The company creates a new AWS account in the organization and configures an AWS Backup backup vault in the new account. The company creates a KMS key in the new account to encrypt the backups. Finally, the company configures a new backup plan in the primary account. The destination for the new backup plan is the backup vault in the new account.
When the AWS Backup job in the primary account is invoked, the job creates backups in the primary account. However, the backups are not copied to the new account's backup vault.
Which combination of steps must the company take so that backups can be copied to the new account's backup vault? (Select TWO.)

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

Answer: AE

Explanation:
To enable cross-account backup, the company needs to grant permissions to both the backup vault and the KMS key in the destination account. The backup vault access policy in the destination account must allow the primary account to copy backups into the vault. The key policy of the KMS key in the destination account must allow the primary account to use the key to encrypt and decrypt the backups. These steps are described in the AWS documentation12. Therefore, the correct answer is A and E.
References:
? 1: Creating backup copies across AWS accounts - AWS Backup
? 2: Using AWS Backup with AWS Organizations - AWS Backup

NEW QUESTION 49
A highly regulated company has a policy that DevOps engineers should not log in to their Amazon EC2 instances except in emergencies. It a DevOps engineer does log in the security team must be notified within 15 minutes of the occurrence.
Which solution will meet these requirements'?

A. Install the Amazon Inspector agent on each EC2 instance Subscribe to Amazon EventBridge notifications Invoke an AWS Lambda function to check if a message is about user logins If it is send a notification to the security team using Amazon SNS.
B. Install the Amazon CloudWatch agent on each EC2 instance Configure the agent to push all logs to Amazon CloudWatch Logs and set up a CloudWatch metric filter that searches for user login
C. If a login is found send a notification to the security team using Amazon SNS.
D. Set up AWS CloudTrail with Amazon CloudWatch Log
E. Subscribe CloudWatch Logs to Amazon Kinesis Attach AWS Lambda to Kinesis to parse and determine if a log contains a user login If it does, send a notification to the security team using Amazon SNS.

F. Set up a script on each Amazon EC2 instance to push all logs to Amazon S3 Set up an S3 event to invoke an AWS Lambda function which invokes an Amazon Athena query to ru
G. The Athena query checks tor logins and sends the output to the security team using Amazon SNS.

Answer: B

Explanation:
https://aws.amazon.com/blogs/security/how-to-monitor-and-visualize-failed-ssh-access-attempts-to-amazon-ec2-linux-instances/

NEW QUESTION 51
A developer is maintaining a fleet of 50 Amazon EC2 Linux servers. The servers are part of an Amazon EC2 Auto Scaling group, and also use Elastic Load Balancing for load balancing.
Occasionally, some application servers are being terminated after failing ELB HTTP health checks. The developer would like to perform a root cause analysis on the issue, but before being able to access application logs, the server is terminated.
How can log collection be automated?

A. Use Auto Scaling lifecycle hooks to put instances in a Pending:Wait stat
B. Create an Amazon CloudWatch alarm for EC2 Instance Terminate Successful and trigger an AWS Lambda function that invokes an SSM Run Command script to collect logs, push them to Amazon S3, and complete the lifecycle action once logs are collected.
C. Use Auto Scaling lifecycle hooks to put instances in a Terminating:Wait stat
D. Create an AWS Config rule for EC2 Instance-terminate Lifecycle Action and trigger a step function that invokes a script to collect logs, push them to Amazon S3, and complete the lifecycle action once logs are collected.
E. Use Auto Scaling lifecycle hooks to put instances in a Terminating:Wait stat
F. Create an Amazon CloudWatch subscription filter for EC2 Instance Terminate Successful and trigger a CloudWatch agent that invokes a script to collect logs, push them to Amazon S3, and complete the lifecycle action once logs are collected.
G. Use Auto Scaling lifecycle hooks to put instances in a Terminating:Wait stat
H. Create an Amazon EventBridge rule for EC2 Instance-terminate Lifecycle Action and trigger an AWS Lambda function that invokes an SSM Run Command script to collect logs, push them to Amazon S3, and complete the lifecycle action once logs are collected.

Answer: D

Explanation:
https://blog.fourninecloud.com/auto-scaling-lifecycle-hooks-to-export-server-logs-when-instance-terminating-58e06d7c0d6a

NEW QUESTION 55
A DevOps engineer manages a web application that runs on Amazon EC2 instances behind an Application Load Balancer (ALB). The instances run in an EC2 Auto Scaling group across multiple Availability Zones. The engineer needs to implement a deployment strategy that:
Launches a second fleet of instances with the same capacity as the original fleet. Maintains the original fleet unchanged while the second fleet is launched. Transitions traffic to the second fleet when the second fleet is fully deployed. Terminates the original fleet automatically 1 hour after transition.
Which solution will satisfy these requirements?

A. Use an AWS CloudFormation template with a retention policy for the ALB set to 1 hou
B. Update the Amazon Route 53 record to reflect the new ALB.
C. Use two AWS Elastic Beanstalk environments to perform a blue/green deployment from the original environment to the new on
D. Create an application version lifecycle policy to terminate the original environment in 1 hour.
E. Use AWS CodeDeploy with a deployment group configured with a blue/green deployment configuration Select the option Terminate the original instances in the deployment group with a waiting period of 1 hour.
F. Use AWS Elastic Beanstalk with the configuration set to Immutabl
G. Create an.ebextension using the Resources key that sets the deletion policy of the ALB to 1 hour, and deploy the application.

Answer: C

Explanation:
https://docs.aws.amazon.com/codedeploy/latest/APIReference/API_BlueInstanceTerminati onOption.html
The original revision termination settings are configured to wait 1 hour after traffic has been rerouted before terminating the blue task set.
https://docs.aws.amazon.com/AmazonECS/latest/developerguide/deployment-type- bluegreen.html

NEW QUESTION 58
A company uses AWS Organizations to manage multiple accounts. Information security policies require that all unencrypted Amazon EBS volumes be marked as non-compliant. A DevOps engineer needs to automatically deploy the solution and ensure that this compliance check is always present.
Which solution will accomplish this?

A. Create an AWS CloudFormation template that defines an AWS Inspector rule to check whether EBS encryption is enable
B. Save the template to an Amazon S3 bucket that has been shared with all accounts within the compan
C. Update the account creation script pointing to the CloudFormation template in Amazon S3.
D. Create an AWS Config organizational rule to check whether EBS encryption is enabled and deploy the rule using the AWS CL
E. Create and apply an SCP to prohibit stopping and deleting AWS Config across the organization.
F. Create an SCP in Organization
G. Set the policy to prevent the launch of Amazon EC2 instances without encryption on the EBS volumes using a conditional expressio
H. Apply the SCP to all AWS account
I. Use Amazon Athena to analyze the AWS CloudTrail output, looking for events that deny an ec2: RunInstances action.
J. Deploy an IAM role to all accounts from a single trusted accoun
K. Build a pipeline withAWS CodePipeline with a stage in AWS Lambda to assume the IAM role, and list all EBS volumes in the accoun
L. Publish a report to Amazon S3.

Answer: B

Explanation:
https://docs.aws.amazon.com/config/latest/developerguide/ec2-ebs-encryption-by-default.html

NEW QUESTION 61
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 even
B. Create an AWS Lambda (unction that uses the AWS SDK to call StartLogging on the ARN of the resource in which StopLogging was calle
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 hou
E. Create an Amazon EventBridge rule tor AWS Config rules compliance chang
F. Create an AWS Lambda function that uses the AWS SDK to call StartLogging on the ARN of the resource in which StopLoggmg was calle
G. Add the Lambda function ARN as a target to the EventBridge rule.
H. Create an Amazon EventBridge rule for a scheduled event every 5 minute
I. Create an AWS Lambda function that uses the AWS SDK to call StartLogging on a CloudTrail trail in the AWS accoun
J. Add the Lambda function ARN as a target to the EventBridge rule.
K. Launch a t2 nano instance with a script running every 5 minutes that uses the AWS SDK to query CloudTrail in the current accoun
L. 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 64
A business has an application that consists of five independent AWS Lambda functions.
The DevOps engineer has built a CI/CD pipeline using AWS CodePipeline and AWS CodeBuild that builds tests packages and deploys each Lambda function in sequence. The pipeline uses an Amazon EventBridge rule to ensure the pipeline starts as quickly as possible after a change is made to the application source code.
After working with the pipeline for a few months the DevOps engineer has noticed the pipeline takes too long to complete.
What should the DevOps engineer implement to BEST improve the speed of the pipeline?

A. Modify the CodeBuild projects within the pipeline to use a compute type with more available network throughput.
B. Create a custom CodeBuild execution environment that includes a symmetricmultiprocessing configuration to run the builds in parallel.
C. Modify the CodePipeline configuration to run actions for each Lambda function in parallel by specifying the same runorder.
D. Modify each CodeBuild protect to run within a VPC and use dedicated instances to increase throughput.

Answer: C

Explanation:
https://docs.aws.amazon.com/codepipeline/latest/userguide/reference- pipeline-structure.html
AWS doc: "To specify parallel actions, use the same integer for each action you want to run in parallel. For example, if you want three actions to run in sequence in a stage, you would give the first action the runOrder value of 1, the second action the runOrder value of 2, and the third the runOrder value of 3. However, if you want the second and third actions to run in parallel, you would give the first action the runOrder value of 1 and both the second and third actions the runOrder value of 2."

NEW QUESTION 65
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 70
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 75
A company's application uses a fleet of Amazon EC2 On-Demand Instances to analyze and process data. The EC2 instances are in an Auto Scaling group. The Auto Scaling group is a target group for an Application Load Balancer (ALB). The application analyzes critical data that cannot tolerate interruption. The application also analyzes noncritical data that can withstand interruption.
The critical data analysis requires quick scalability in response to real-time application demand. The noncritical data analysis involves memory consumption. A DevOps engineer must implement a solution that reduces scale-out latency for the critical data. The solution also must process the noncritical data.
Which combination of steps will meet these requirements? (Select TWO.)

A. For the critical data, modify the existing Auto Scaling grou
B. Create a warm pool instance in the stopped stat
C. Define the warm pool siz
D. Create a new version of the launch template that has detailed monitoring enable
E. use Spot Instances.
F. For the critical data, modify the existing Auto Scaling grou
G. Create a warm pool instance in the stopped stat
H. Define the warm pool siz
I. Create a new version of the launch template that has detailed monitoring enable
J. Use On-Demand Instances.
K. For the critical dat
L. modify the existing Auto Scaling grou
M. Create a lifecycle hook to ensure that bootstrap scripts are completed successfull
N. Ensure that the application on the instances is ready to accept traffic before the instances are registere
O. Create a new version of the launch template that has detailed monitoring enabled.
P. For the noncritical data, create a second Auto Scaling group that uses a launch templat
Q. Configure the launch template to install the unified Amazon CloudWatch agent and to configure the CloudWatch agent with a custom memory utilization metri
R. Use Spot Instance
S. Add the new Auto Scaling group as the target group for the AL
T. Modify the application to use two target groups for critical data and noncritical data.
. For the noncritical data, create a second Auto Scaling grou
. Choose the predefined memory utilization metric type for the target tracking scaling polic
. Use Spot Instance
. Add the new Auto Scaling group as the target group for the AL
. Modify the application to use two target groups for critical data and noncritical data.

Answer: BD

Explanation:
? For the critical data, using a warm pool1 can reduce the scale-out latency by having pre-initialized EC2 instances ready to serve the application traffic. Using On-Demand Instances can ensure that the instances are always available and not interrupted by Spot interruptions2.
? For the noncritical data, using a second Auto Scaling group with Spot Instances can reduce the cost and leverage the unused capacity of EC23. Using a launch template with the CloudWatch agent4 can enable the collection of memory utilization metrics, which can be used to scale the group based on the memory demand. Adding the second group as a target group for the ALB and modifying the application to use two target groups can enable routing the traffic based on the data type.
References: 1: Warm pools for Amazon EC2 Auto Scaling 2: Amazon EC2 On-Demand Capacity Reservations 3: Amazon EC2 Spot Instances 4: Metrics collected by the CloudWatch agent

NEW QUESTION 80
A company uses AWS Directory Service for Microsoft Active Directory as its identity provider (IdP). The company requires all infrastructure to be defined and deployed by AWS CloudFormation.
A DevOps engineer needs to create a fleet of Windows-based Amazon EC2 instances to host an application. The DevOps engineer has created a CloudFormation template that contains an EC2 launch template, IAM role, EC2 security group, and EC2 Auto Scaling group. The DevOps engineer must implement a solution that joins all EC2 instances to the domain of the AWS Managed Microsoft AD directory.
Which solution will meet these requirements with the MOST operational efficiency?

A. In the CloudFormation template, create an AWS::SSM::Document resource that joins the EC2 instance to the AWS Managed Microsoft AD domain by using the parameters for the existing director
B. Update the launch template to include the SSMAssociation property to use the new SSM documen
C. Attach the AmazonSSMManagedlnstanceCore and AmazonSSMDirectoryServiceAccess AWS managed policies to the IAM role that the EC2 instances use.

D. In the CloudFormation template, update the launch template to include specific tags that propagate on launc
E. Create an AWS::SSM::Association resource to associate the AWS- JoinDirectoryServiceDomain Automation runbook with the EC2 instances that have the specified tag
F. Define the required parameters to join the AWS Managed Microsoft AD director
G. Attach the AmazonSSMManagedInstanceCore and AmazonSSMDirectoryServiceAccess AWS managed policies to the IAM role that the EC2 instances use.
H. Store the existing AWS Managed Microsoft AD domain connection details in AWS Secrets Manage
I. In the CloudFormation template, create an AWS::SSM::Association resource to associate the AWS-CreateManagedWindowsInstanceWithApproval Automation runbook with the EC2 Auto Scaling grou
J. Pass the ARNs for the parameters from Secrets Manager to join the domai
K. Attach the AmazonSSMDirectoryServiceAccess and SecretsManagerReadWrite AWS managed policies to the IAM role that the EC2 instances use.
L. Store the existing AWS Managed Microsoft AD domain administrator credentials in AWS Secrets Manage
M. In the CloudFormation template, update the EC2 launch template to include user dat
N. Configure the user data to pull the administrator credentials from Secrets Manager and to join the AWS Managed Microsoft AD domai
O. Attach the AmazonSSMManagedInstanceCore and SecretsManagerReadWrite AWS managed policies to the IAM role that the EC2 instances use.

Answer: B

Explanation:
To meet the requirements, the DevOps engineer needs to create a solution that joins all EC2 instances to the domain of the AWS Managed Microsoft AD directory with the most operational efficiency. The DevOps engineer can use AWS Systems Manager Automation to automate the domain join process using an existing runbook called AWS- JoinDirectoryServiceDomain. This runbook can join Windows instances to an AWS Managed Microsoft AD or Simple AD directory by using PowerShell commands. The DevOps engineer can create an AWS::SSM::Association resource in the CloudFormation template to associate the runbook with the EC2 instances that have specific tags. The tags can be defined in the launch template and propagated on launch to the EC2 instances. The DevOps engineer can also define the required parameters for the runbook, such as the directory ID, directory name, and organizational unit. The DevOps engineer can attach the AmazonSSMManagedInstanceCore and AmazonSSMDirectoryServiceAccess AWS managed policies to the IAM role that the EC2 instances use. These policies grant the necessary permissions for Systems Manager and Directory Service operations.

NEW QUESTION 82
A company's security team requires that all external Application Load Balancers (ALBs) and Amazon API Gateway APIs are associated with AWS WAF web ACLs. The company
has hundreds of AWS accounts, all of which are included in a single organization in AWS Organizations. The company has configured AWS Config for the organization. During an audit, the company finds some externally facing ALBs that are not associated with AWS WAF web ACLs.
Which combination of steps should a DevOps engineer take to prevent future violations? (Choose two.)

A. Delegate AWS Firewall Manager to a security account.
B. Delegate Amazon GuardDuty to a security account.
C. Create an AWS Firewall Manager policy to attach AWS WAF web ACLs to any newly created ALBs and API Gateway APIs.
D. Create an Amazon GuardDuty policy to attach AWS WAF web ACLs to any newly created ALBs and API Gateway APIs.
E. Configure an AWS Config managed rule to attach AWS WAF web ACLs to any newly created ALBs and API Gateway APIs.

Answer: AC

Explanation:
If instead you want to automatically apply the policy to existing in-scope resources, choose Auto remediate any noncompliant resources. This option creates a web ACL in each applicable account within the AWS organization and associates the web ACL with the resources in the accounts. When you choose Auto remediate any noncompliant resources, you can also choose to remove existing web ACL associations from in-scope resources, for the web ACLs that aren't managed by another active Firewall Manager policy. If you choose this option, Firewall Manager first associates the policy's web ACL with the resources, and then removes the prior associations. If a resource has an association with another web ACL that's managed by a different active Firewall Manager policy, this choice doesn't affect that association.

NEW QUESTION 86
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 88
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 92
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 95
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 99
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 repor
C. Write the secret to AWS Systems Manager Parameter Store as a secure strin
D. Update the SAM templates and the Python code to pull the secret from Parameter Store.
E. Associate the CodeCommit repository with Amazon CodeGuru Reviewe
F. Manually check the code review for any recommendation
G. Choose the option to protect the secre
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 repor

K. Choose the option to protect the secre
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 Reviewe
N. Manually check the code review for any recommendation
O. Write the secret to AWS Systems Manager Parameter Store as a strin
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 104
A DevOps engineer is planning to deploy a Ruby-based application to production. The application needs to interact with an Amazon RDS for MySQL database and should have automatic scaling and high availability. The stored data in the database is critical and should persist regardless of the state of the application stack.
The DevOps engineer needs to set up an automated deployment strategy for the application with automatic rollbacks. The solution also must alert the application team when a deployment fails.
Which combination of steps will meet these requirements? (Select THREE.)

A. Deploy the application on AWS Elastic Beanstal
B. Deploy an Amazon RDS for MySQL DB instance as part of the Elastic Beanstalk configuration.
C. Deploy the application on AWS Elastic Beanstal
D. Deploy a separate Amazon RDS for MySQL DB instance outside of Elastic Beanstalk.
E. Configure a notification email address that alerts the application team in the AWS Elastic Beanstalk configuration.
F. Configure an Amazon EventBridge rule to monitor AWS Health event
G. Use an Amazon Simple Notification Service (Amazon SNS) topic as a target to alert the application team.
H. Use the immutable deployment method to deploy new application versions.
I. Use the rolling deployment method to deploy new application versions.

Answer: BDE

Explanation:
For deploying a Ruby-based application with requirements for interaction with an Amazon RDS for MySQL database, automatic scaling, high availability, and data persistence, the following steps will meet the requirements:
? B. Deploy the application on AWS Elastic Beanstalk. Deploy a separate Amazon
RDS for MySQL DB instance outside of Elastic Beanstalk. This approach ensures that the database persists independently of the Elastic Beanstalk environment, which can be torn down and recreated without affecting the database123.
? E. Use the immutable deployment method to deploy new application
versions. Immutable deployments provide a zero-downtime deployment method that ensures that if any part of the deployment process fails, the environment is rolled back to the original state automatically4.
? D. Configure an Amazon EventBridge rule to monitor AWS Health events. Use an
Amazon Simple Notification Service (Amazon SNS) topic as a target to alert the application team. This setup allows for automated monitoring and alerting of the application team in case of deployment failures or other health events56.
References:
? AWS Elastic Beanstalk documentation on deploying Ruby applications1.
? AWS documentation on application auto-scaling7.
? AWS documentation on automated deployment strategies with automatic rollbacks and alerts456.

NEW QUESTION 106
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 109
A company is testing a web application that runs on Amazon EC2 instances behind an Application Load Balancer. The instances run in an Auto Scaling group across multiple Availability Zones. The company uses a blue green deployment process with immutable instances when deploying new software.
During testing users are being automatically logged out of the application at random times. Testers also report that when a new version of the application is deployed all users are logged out. The development team needs a solution to ensure users remain logged m across scaling events and application deployments.
What is the MOST operationally efficient way to ensure users remain logged in?

A. Enable smart sessions on the load balancer and modify the application to check tor an existing session.
B. Enable session sharing on the toad balancer and modify the application to read from the session store.
C. Store user session information in an Amazon S3 bucket and modify the application to read session information from the bucket.
D. Modify the application to store user session information in an Amazon ElastiCache cluster.

Answer: D

Explanation:
https://aws.amazon.com/caching/session-management/

NEW QUESTION 112
A company is developing an application that will generate log events. The log events consist of five distinct metrics every one tenth of a second and produce a large amount of data The company needs to configure the application to write the logs to Amazon Time stream The company will configure a daily query against the Timestream table.
Which combination of steps will meet these requirements with the FASTEST query performance? (Select THREE.)

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

Answer: ADF

Explanation:
A comprehensive and detailed explanation is:
? Option A is correct because using batch writes to write multiple log events in a single write operation is a recommended practice for optimizing the performance and cost of data ingestion in Timestream. Batch writes can reduce the number of network round trips and API calls, and can also take advantage of parallel processing by Timestream. Batch writes can also improve the compression ratio of data in the memory store and the magnetic store, which can reduce the storage costs and improve the query performance1.
? Option B is incorrect because writing each log event as a single write operation is not a recommended practice for optimizing the performance and cost of data ingestion in Timestream. Writing each log event as a single write operation would increase the number of network round trips and API calls, and would also reduce the compression ratio of data in the memory store and the magnetic store. This would increase the storage costs and degrade the query performance1.
? Option C is incorrect because treating each log as a single-measure record is not a recommended practice for optimizing the query performance in Timestream. Treating each log as a single-measure record would result in creating multiple records for each timestamp, which would increase the storage size and the query latency. Moreover, treating each log as a single-measure record would require using joins to query multiple measures for the same timestamp, which would add complexity and overhead to the query processing2.
? Option D is correct because treating each log as a multi-measure record is a recommended practice for optimizing the query performance in Timestream. Treating each log as a multi-measure record would result in creating a single record for each timestamp, which would reduce the storage size and the query latency. Moreover, treating each log as a multi-measure record would allow querying multiple measures for the same timestamp without using joins, which would simplify and speed up the query processing2.
? Option E is incorrect because configuring the memory store retention period to be longer than the magnetic store retention period is not a valid option in Timestream. The memory store retention period must always be shorter than or equal to the magnetic store retention period. This ensures that data is moved from the memory store to the magnetic store before it expires out of the memory store3.
? Option F is correct because configuring the memory store retention period to be shorter than the magnetic store retention period is a valid option in Timestream. The memory store retention period determines how long data is kept in the memory store, which is optimized for fast point-in-time queries. The magnetic store retention period determines how long data is kept in the magnetic store, which is optimized for fast analytical queries. By configuring these retention periods appropriately, you can balance your storage costs and query performance according to your application needs3.
References:
? 1: Batch writes
? 2: Multi-measure records vs. single-measure records
? 3: Storage

NEW QUESTION 115
A company has many AWS accounts. During AWS account creation the company uses automation to create an Amazon CloudWatch Logs log group in every AWS Region that the company operates in. The automaton configures new resources in the accounts to publish logs to the provisioned log groups in their Region. The company has created a logging account to centralize the logging from all the other accounts. A DevOps engineer needs to aggregate the log groups from all the accounts to an existing Amazon S3 bucket in the logging account.
Which solution will meet these requirements in the MOST operationally efficient manner?

A. In the logging account create a CloudWatch Logs destination with a destination polic
B. For each new account subscribe the CloudWatch Logs log groups to th
C. Destination Configure a single Amazon Kinesis data stream and a single Amazon Kinesis Data Firehose delivery stream to deliver the logs from the CloudWatch Logs destination to the S3 bucket.
D. In the logging account create a CloudWatch Logs destination with a destination policy for each Regio
E. For each new account subscribe the CloudWatch Logs log groups to the destinatio
F. Configure a single Amazon Kinesis data stream and a single Amazon Kinesis Data Firehose delivery stream to deliver the logs from all the CloudWatch Logs destinations to the S3 bucket.
G. In the logging account create a CloudWatch Logs destination with a destination policy for each Regio
H. For each new account subscribe the CloudWatch Logs log groups to the destination Configure an Amazon Kinesis data stream and an Amazon Kinesis Data Firehose delivery stream for each Region to deliver the logs from the CloudWatch Logs destinations to the S3 bucket.
I. In the logging account create a CloudWatch Logs destination with a destination polic
J. For each new account subscribe the CloudWatch Logs log groups to the destinatio
K. Configure a single Amazon Kinesis data stream to deliver the logs from the CloudWatch Logs destination to the S3 bucket.

Answer: C

Explanation:
This solution will meet the requirements in the most operationally efficient manner because it will use CloudWatch Logs destination to aggregate the log groups from all the accounts to a single S3 bucket in the logging account. However, unlike option A, this solution will create a CloudWatch Logs destination for each

region, instead of a single destination for all regions. This will improve the performance and reliability of the log delivery, as it will avoid cross-region data transfer and latency issues. Moreover, this solution will use an Amazon Kinesis data stream and an Amazon Kinesis Data Firehose delivery stream for each region, instead of a single stream for all regions. This will also improve the scalability and throughput of the log delivery, as it will avoid bottlenecks and throttling issues that may occur with a single stream.

NEW QUESTION 117

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