

SET 1: PRACTICE QUESTIONS ONLY

For training purposes, go directly to [Set 1: Practice Questions, Answers & Explanations](#)

QUESTION 1

A Developer has used a third-party tool to build, bundle, and package a software package on-premises. The software package is stored in a local file system and must be deployed to Amazon EC2 instances.

How can the application be deployed onto the EC2 instances?

1. Upload the bundle to an Amazon S3 bucket and specify the S3 location when doing a deployment using AWS CodeDeploy.
2. Use AWS CodeDeploy and point it to the local file system to deploy the software package.
3. Create a repository using AWS CodeCommit to automatically trigger a deployment to the EC2 instances.
4. Use AWS CodeBuild to commit the package and automatically deploy the software package.

QUESTION 2

A Developer is creating a serverless application that uses an Amazon DynamoDB table. The application must make idempotent, all-or-nothing operations for multiple groups of write actions.

Which solution will meet these requirements?

1. Update the items in the table using the BatchWriteItem operation and configure idempotency at the table level.
2. Create an Amazon SQS FIFO queue and use the SendMessageBatch operation to group the changes.
3. Update the items in the table using the TransactWriteItems operation to group the changes.
4. Enable DynamoDB streams and capture new images. Update the items in the table using the BatchWriteItem.

QUESTION 3

A company runs a legacy application that uses an XML-based SOAP interface. The company needs to expose the functionality of the service to external customers and plans to use Amazon API Gateway.

How can a Developer configure the integration?

1. Create a SOAP API using Amazon API Gateway. Transform the incoming JSON into a valid XML message for the SOAP interface using AWS Lambda.
2. Create a SOAP API using Amazon API Gateway. Pass the incoming JSON to the SOAP interface through a Network Load Balancer.
3. Create a RESTful API using Amazon API Gateway. Pass the incoming JSON to the SOAP interface through an Application Load Balancer.
4. Create a RESTful API using Amazon API Gateway. Transform the incoming JSON into a valid XML message for the SOAP interface using mapping templates.

QUESTION 4

An application serves customers in several different geographical regions. Information about the location users connect from is written to logs stored in Amazon CloudWatch Logs. The company needs to publish an Amazon CloudWatch custom metric that tracks connections for each location.

Which approach will meet these requirements?

1. Create a CloudWatch Logs Insights query to extract the location information from the logs and to create a custom metric with location as a dimension.
2. Configure a CloudWatch Events rule that creates a custom metric from the CloudWatch Logs group.
3. Stream data to an Amazon Elasticsearch cluster in near-real time and export a custom metric.
4. Create a CloudWatch metric filter to extract metrics from the log files with location as a dimension.

QUESTION 5

A Developer is creating a new web application that will be deployed using AWS Elastic Beanstalk from the AWS Management Console. The Developer is about to create a source bundle which will be uploaded using the console.

Which of the following are valid requirements for creating the source bundle? (Select TWO.)

1. Must include the cron.yaml file.
2. Must include a parent folder or top-level directory.
3. Must not include a parent folder or top-level directory.
4. Must not exceed 512 MB.
5. Must consist of one or more ZIP files.

QUESTION 6

A Developer is writing code to run in a cron job on an Amazon EC2 instance that sends status information about the application to Amazon CloudWatch.

Which method should the Developer use?

1. Use the AWS CLI put-metric-alarm command.
2. Use the AWS CLI put-metric-data command.
3. Use the unified CloudWatch agent to publish custom metrics.
4. Use the CloudWatch console with detailed monitoring.

QUESTION 7

A Developer is creating a web application that will be used by employees working from home. The company uses a SAML directory on-premises for storing user information. The Developer must integrate with the SAML directory and authorize each employee to access only their own data when using the application.

Which approach should the Developer take?

1. Create the application within an Amazon VPC and use a VPC endpoint with a trust policy to grant access to the employees.
2. Use Amazon Cognito user pools, federate with the SAML provider, and use user pool groups with an IAM policy.
3. Create a unique IAM role for each employee and have each employee assume the role to access the application so they can access their personal data only.
4. Use an Amazon Cognito identity pool, federate with the SAML provider, and use a trust policy with an IAM condition key to limit employee access.

QUESTION 8

A critical application runs on an Amazon EC2 instance. A Developer has configured a custom Amazon CloudWatch metric that monitors application availability with a data granularity of 1 second. The Developer must be notified within 30 seconds if the application experiences any issues.

What should the Developer do to meet this requirement?

1. Specify an Amazon SNS topic for alarms when issuing the put-metric-data AWS CLI command.
2. Configure a high-resolution CloudWatch alarm and use Amazon SNS to send the alert.
3. Use Amazon CloudWatch Logs Insights and trigger an Amazon Eventbridge rule to send a notification.
4. Use a default CloudWatch metric, configure an alarm, and use Amazon SNS to send the alert.

QUESTION 9

An application uses an Amazon DynamoDB table that is 50 GB in size and provisioned with 10,000 read capacity units (RCUs) per second. The table must be scanned during non-peak hours when normal traffic consumes around 5,000 RCUs. The Developer must scan the whole table in the shortest possible time whilst ensuring the normal workload is not affected.

How would the Developer optimize this scan cost-effectively?

1. Use sequential scans and apply a FilterExpression.
2. Increase read capacity units during the scan operation.
3. Use the Parallel Scan API operation and limit the rate.
4. Use sequential scans and set the ConsistentRead parameter to false.

QUESTION 10

A company is deploying a static website hosted from an Amazon S3 bucket. The website must support encryption in-transit for website visitors.

Which combination of actions must the Developer take to meet this requirement? (Select TWO.)

1. Create an AWS WAF WebACL with a secure listener.
2. Create an Amazon CloudFront distribution. Set the S3 bucket as an origin.
3. Configure an Amazon CloudFront distribution with an AWS WAF WebACL.
4. Configure the S3 bucket with an SSL/TLS certificate.
5. Configure an Amazon CloudFront distribution with an SSL/TLS certificate.

QUESTION 11

A developer is planning to use a Lambda function to process incoming requests from an Application Load Balancer (ALB). How can this be achieved?

1. Create a target group and register the Lambda function using the AWS CLI
2. Create an Auto Scaling Group (ASG) and register the Lambda function in the launch configuration
3. Setup an API in front of the ALB using API Gateway and use an integration request to map the request to the Lambda function
4. Configure an event-source mapping between the ALB and the Lambda function

QUESTION 12

A developer is troubleshooting problems with a Lambda function that is invoked by Amazon SNS and repeatedly fails. How can the developer save discarded events for further processing?

1. Enable CloudWatch Logs for the Lambda function
2. Configure a Dead Letter Queue (DLQ)
3. Enable Lambda streams
4. Enable SNS notifications for failed events

QUESTION 13

A company will be uploading several terabytes of data to Amazon S3. What is the SIMPLEST solution to ensure that the data is encrypted before it is sent to S3 and whilst in transit?

1. Use client-side encryption with a KMS managed CMK and SSL
2. Use server-side encryption with client provided keys
3. Use client-side encryption and a hardware VPN to a VPC and an S3 endpoint
4. Use server-side encryption with S3 managed keys and SSL

QUESTION 14

A company is setting up a Lambda function that will process events from a DynamoDB stream. The Lambda function has been created and a stream has been enabled. What else needs to be done for this solution to work?

1. An alarm should be created in CloudWatch that sends a notification to Lambda when a new entry is added to the DynamoDB stream
2. An event-source mapping must be created on the DynamoDB side to associate the DynamoDB stream with the Lambda function
3. An event-source mapping must be created on the Lambda side to associate the DynamoDB stream with the Lambda function
4. Update the CloudFormation template to map the DynamoDB stream to the Lambda function

QUESTION 15

A developer is preparing to deploy a Docker container to Amazon ECS using CodeDeploy. The developer has defined the deployment actions in a file. What should the developer name the file?

1. buildspec.yml

2. appspec.yml
3. cron.yml
4. appspec.json

QUESTION 16

A decoupled application is using an Amazon SQS queue. The processing layer that is retrieving messages from the queue is not able to keep up with the number of messages being placed in the queue.

What is the FIRST step the developer should take to increase the number of messages the application receives?

1. Use the API to update the **WaitTimeSeconds** parameter to a value other than 0
2. Add additional Amazon SQS queues and have the application poll those queues
3. Use the **ReceiveMessage** API to retrieve up to 10 messages at a time
4. Configure the queue to use short polling

QUESTION 17

An application uses AWS Lambda which makes remote calls to several downstream services. A developer wishes to add data to custom subsegments in AWS X-Ray that can be used with filter expressions. Which type of data should be used?

1. Metadata
2. Annotations
3. Trace ID
4. Daemon

QUESTION 18

An application component writes thousands of item-level changes to a DynamoDB table per day. The developer requires that a record is maintained of the items before they were modified. What MUST the developer do to retain this information? (Select TWO.)

1. Create a CloudWatch alarm that sends a notification when an item is modified
2. Enable DynamoDB Streams for the table
3. Set the **StreamViewType** to OLD_IMAGE
4. Set the **StreamViewType** to NEW_AND_OLD_IMAGES
5. Use an AWS Lambda function to extract the item records from the notification and write to an S3 bucket

QUESTION 19

An X-Ray daemon is being used on an Amazon ECS cluster to assist with debugging stability issues. A developer requires more detailed timing information and data related to downstream calls to AWS services.

What should the developer use to obtain this extra detail?

1. Subsegments
2. Annotations
3. Metadata
4. Filter expressions

QUESTION 20

A developer has deployed an application on an Amazon EC2 instance in a private subnet within a VPC. The subnet does not have Internet connectivity. The developer would like to write application logs to an Amazon S3 bucket. What MUST be configured to enable connectivity?

1. An IAM role must be added to the instance that has permissions to write to the S3 bucket
2. A bucket policy needs to be added specifying the principles that are allowed to write data to the bucket
3. A VPN should be established to enable private connectivity to S3
4. A VPC endpoint should be provisioned for S3

QUESTION 21

A serverless application uses an Amazon API Gateway and AWS Lambda. The application processes data submitted in a form by

users of the application and certain data must be stored and available to subsequent function calls.

What is the BEST solution for storing this data?

1. Store the data in an Amazon Kinesis Data Stream
2. Store the data in the /tmp directory
3. Store the data in an Amazon DynamoDB table
4. Store the data in an Amazon SQS queue

QUESTION 22

A Development team need to push an update to an application that is running on AWS Elastic Beanstalk. The business SLA states that the application must maintain full performance capabilities during updates whilst minimizing cost.

Which Elastic Beanstalk deployment policy should the development team select?

1. Immutable
2. Rolling
3. All at once
4. Rolling with additional batch

QUESTION 23

An organization developed an application that uses a set of APIs that are being served through Amazon API Gateway. The API calls must be authenticated based on OpenID identity providers such as Amazon, Google, or Facebook. The APIs should allow access based on a custom authorization model.

Which is the simplest and MOST secure design to use to build an authentication and authorization model for the APIs?

1. Use Amazon ElastiCache to store user credentials and pass them to the APIs for authentication and authorization
2. Use Amazon DynamoDB to store user credentials and have the application retrieve temporary credentials from AWS STS. Make API calls by passing user credentials to the APIs for authentication and authorization
3. Use Amazon Cognito user pools and a custom authorizer to authenticate and authorize users based on JSON Web Tokens
4. Build an OpenID token broker with Amazon and Facebook. Users will authenticate with these identify providers and pass the JSON Web Token to the API to authenticate each API call

QUESTION 24

An AWS Lambda function has been packaged for deployment to multiple environments including development, test, and production. The Lambda function uses an Amazon RDS MySQL database for storing data. Each environment has a different RDS MySQL database.

How can a Developer configure the Lambda function package to ensure the correct database connection string is used for each environment?

1. Use a separate function for development and production
2. Include the resources in the function code
3. Use environment variables for the database connection strings
4. Use layers for storing the database connection strings

QUESTION 25

An application is being deployed on an Amazon EC2 instance running Linux. The EC2 instance will need to manage other AWS services. How can the EC2 instance be configured to make API calls to AWS service securely?

1. Run the "aws configure" AWS CLI command and specify the access key ID and secret access key
2. Create an AWS IAM Role, attach a policy with the necessary privileges and attach the role to the instance's instance profile
3. Store a users' console login credentials in the application code so the application can call AWS STS and gain temporary security credentials
4. Store the access key ID and secret access key as encrypted AWS Lambda environment variables and invoke Lambda for each API call

QUESTION 26

A Developer is building an application that will store data relating to financial transactions in multiple DynamoDB tables. The Developer needs to ensure the transactions provide atomicity, isolation, and durability (ACID) and that changes are committed following an all-or nothing paradigm.

What write API should be used for the DynamoDB table?

1. Standard
2. Strongly consistent
3. Transactional
4. Eventually consistent

QUESTION 27

A Developer will be launching several Docker containers on a new Amazon ECS cluster using the EC2 Launch Type. The containers will all run a web service on port 80.

What is the EASIEST way the Developer can configure the task definition to ensure the web services run correctly and there are no port conflicts on the host instances?

1. Specify port 80 for the container port and a unique port number for the host port
2. Specify a unique port number for the container port and port 80 for the host port
3. Specify port 80 for the container port and port 0 for the host port
4. Leave both the container port and host port configuration blank

QUESTION 28

A Developer is designing a fault-tolerant application that will use Amazon EC2 instances and an Elastic Load Balancer. The Developer needs to ensure that if an EC2 instance fails session data is not lost. How can this be achieved?

1. Enable Sticky Sessions on the Elastic Load Balancer
2. Use an EC2 Auto Scaling group to automatically launch new instances
3. Use Amazon DynamoDB to perform scalable session handling
4. Use Amazon SQS to save session data

QUESTION 29

A CloudFormation stack needs to be deployed in several regions and requires a different Amazon Machine Image (AMI) in each region. Which AWS CloudFormation template key can be used to specify the correct AMI for each region?

1. Outputs
2. Parameters
3. Resources
4. Mappings

QUESTION 30

A company has an application that logs all information to Amazon S3. Whenever there is a new log file, an AWS Lambda function is invoked to process the log files. The code works, gathering all of the necessary information. However, when checking the Lambda function logs, duplicate entries with the same request ID are found.

What is the BEST explanation for the duplicate entries?

1. The S3 bucket name was specified incorrectly
2. The Lambda function failed, and the Lambda service retried the invocation with a delay
3. There was an S3 outage, which caused duplicate entries of the same log file
4. The application stopped intermittently and then resumed

QUESTION 31

An AWS Lambda function authenticates to an external web site using a regularly rotated user name and password. The credentials need to be stored securely and must not be stored in the function code.

What combination of AWS services can be used to achieve this requirement? (Select TWO.)

1. AWS Certificate Manager (ACM)
2. AWS Systems Manager Parameter Store
3. AWS Key Management Store (KMS)
4. AWS Artifact
5. Amazon GuardDuty

QUESTION 32

A Development team would use a GitHub repository and would like to migrate their application code to AWS CodeCommit. What needs to be created before they can migrate a cloned repository to CodeCommit over HTTPS?

1. A GitHub secure authentication token
2. A public and private SSH key file
3. A set of Git credentials generated with IAM
4. An Amazon EC2 IAM role with CodeCommit permissions

QUESTION 33

A company has a large Amazon DynamoDB table which they scan periodically so they can analyze several attributes. The scans are consuming a lot of provisioned throughput. What technique can a Developer use to minimize the impact of the scan on the table's provisioned throughput?

1. Set a smaller page size for the scan
2. Use parallel scans
3. Define a range key on the table
4. Prewarm the table by updating all items

QUESTION 34

A Developer is deploying an application in a microservices architecture on Amazon ECS. The Developer needs to choose the best task placement strategy to MINIMIZE the number of instances that are used. Which task placement strategy should be used?

1. spread
2. random
3. binpack
4. weighted

QUESTION 35

A company has created a set of APIs using Amazon API Gateway and exposed them to partner companies. The APIs have caching enabled for all stages. The partners require a method of invalidating the cache that they can build into their applications.

What can the partners use to invalidate the API cache?

1. They can pass the HTTP header **Cache-Control: max-age=0**
2. They can use the query string parameter **INVALIDATE_CACHE**
3. They must wait for the TTL to expire
4. They can invoke an AWS API endpoint which invalidates the cache

QUESTION 36

A Developer is deploying an AWS Lambda update using AWS CodeDeploy. In the appspec.yaml file, which of the following is a valid structure for the order of hooks that should be specified?

1. BeforeInstall > AfterInstall > AfterAllowTestTraffic > BeforeAllowTraffic > AfterAllowTraffic
2. BeforeInstall > AfterInstall > ApplicationStart > ValidateService
3. BeforeAllowTraffic > AfterAllowTraffic
4. BeforeBlockTraffic > AfterBlockTraffic > BeforeAllowTraffic > AfterAllowTraffic

QUESTION 37

A Developer needs to scan a full DynamoDB 50GB table within non-peak hours. About half of the strongly consistent RCUs are typically used during non-peak hours and the scan duration must be minimized.

How can the Developer optimize the scan execution time without impacting production workloads?

1. Use sequential scans
2. Use parallel scans while limiting the rate
3. Increase the RCUs during the scan operation
4. Change to eventually consistent RCUs during the scan operation

QUESTION 38

A Development team is involved with migrating an on-premises MySQL database to Amazon RDS. The database usage is very read-heavy. The Development team wants re-factor the application code to achieve optimum read performance for queries.

How can this objective be met?

1. Add database retries to the code and vertically scale the Amazon RDS database
2. Use Amazon RDS with a multi-AZ deployment
3. Add a connection string to use an Amazon RDS read replica for read queries
4. Add a connection string to use a read replica on an Amazon EC2 instance

QUESTION 39

To reduce the cost of API actions performed on an Amazon SQS queue, a Developer has decided to implement long polling. Which of the following modifications should the Developer make to the API actions?

1. Set the `ReceiveMessage` API with a `WaitTimeSeconds` of 20
2. Set the `SetQueueAttributes` API with a `DelaySeconds` of 20
3. Set the `ReceiveMessage` API with a `VisibilityTimeout` of 30
4. Set the `SetQueueAttributes` with a `MessageRetentionPeriod` of 60

QUESTION 40

A company is deploying an Amazon Kinesis Data Streams application that will collect streaming data from a gaming application. Consumers will run on Amazon EC2 instances.

In this architecture, what can be deployed on consumers to act as an intermediary between the record processing logic and Kinesis Data Streams and instantiate a record processor for each shard?

1. Amazon Kinesis API
2. AWS CLI
3. Amazon Kinesis CLI
4. Amazon Kinesis Client Library (KCL)

QUESTION 41

A serverless application uses an AWS Lambda function to process Amazon S3 events. The Lambda function executes 20 times per second and takes 20 seconds to complete each execution.

How many concurrent executions will the Lambda function require?

1. 5
2. 400
3. 40
4. 20

QUESTION 42

A Developer is setting up a code update to Amazon ECS using AWS CodeDeploy. The Developer needs to complete the code update quickly. Which of the following deployment types should the Developer use?

1. In-place

2. Canary
3. Blue/green
4. Linear

QUESTION 43

Change management procedures at an organization require that a log is kept recording activity within AWS accounts. The activity that must be recorded includes API activity related to creating, modifying or deleting AWS resources.

Which AWS service should be used to record this information?

1. Amazon CloudWatch
2. Amazon CloudTrail
3. AWS X-Ray
4. AWS OpsWorks

QUESTION 44

A company is deploying an on-premise application server that will connect to several AWS services. What is the BEST way to provide the application server with permissions to authenticate to AWS services?

1. Create an IAM role with the necessary permissions and assign it to the application server
2. Create an IAM user and generate access keys. Create a credentials file on the application server
3. Create an IAM group with the necessary permissions and add the on-premise application server to the group
4. Create an IAM user and generate a key pair. Use the key pair in API calls to AWS services

QUESTION 45

A Developer requires a multi-threaded in-memory cache to place in front of an Amazon RDS database. Which caching solution should the Developer choose?

1. Amazon DynamoDB DAX
2. Amazon ElastiCache Redis
3. Amazon ElastiCache Memcached
4. Amazon RedShift

QUESTION 46

A Developer has recently created an application that uses an AWS Lambda function, an Amazon DynamoDB table, and also sends notifications using Amazon SNS. The application is not working as expected and the Developer needs to analyze what is happening across all components of the application.

What is the BEST way to analyze the issue?

1. Enable X-Ray tracing for the Lambda function
2. Create an Amazon CloudWatch Events rule
3. Assess the application with Amazon Inspector
4. Monitor the application with AWS Trusted Advisor

QUESTION 47

A company needs to store sensitive documents on Amazon S3. The documents should be encrypted in transit using SSL/TLS and then be encrypted for storage at the destination. The company do not want to manage any of the encryption infrastructure or customer master keys and require the most cost-effective solution.

What is the MOST suitable option to encrypt the data?

1. Server-Side Encryption with Amazon S3-Managed Keys (SSE-S3)
2. Server-Side Encryption with Customer Master Keys (CMKs) Stored in AWS Key Management Service (SSE-KMS) using customer managed CMKs
3. Server-Side Encryption with Customer-Provided Keys (SSE-C)
4. Client-side encryption with Amazon S3 managed keys

QUESTION 48

A Developer is building a three-tier web application that must be able to handle a minimum of 10,000 requests per minute. The requirements state that the web tier should be completely stateless while the application maintains session state data for users.

How can the session state data be maintained externally, whilst keeping latency at the LOWEST possible value?

1. Create an Amazon RedShift instance, then implement session handling at the application level to leverage a database inside the RedShift database instance for session data storage
2. Implement a shared Amazon EFS file system solution across the underlying Amazon EC2 instances, then implement session handling at the application level to leverage the EFS file system for session data storage
3. Create an Amazon ElastiCache Redis cluster, then implement session handling at the application level to leverage the cluster for session data storage
4. Create an Amazon DynamoDB table, then implement session handling at the application level to leverage the table for session data storage

QUESTION 49

A Developer is writing an imaging microservice on AWS Lambda. The service is dependent on several libraries that are not available in the Lambda runtime environment.

Which strategy should the Developer follow to create the Lambda deployment package?

1. Create a ZIP file with the source code and all dependent libraries
2. Create a ZIP file with the source code and a script that installs the dependent libraries at runtime
3. Create a ZIP file with the source code and an appspec.yml file. Add the libraries to the appspec.yml file and upload to Amazon S3. Deploy using CloudFormation
4. Create a ZIP file with the source code and a buildspec.yml file that installs the dependent libraries on AWS Lambda

QUESTION 50

An e-commerce web application that shares session state on-premises is being migrated to AWS. The application must be fault tolerant, natively highly scalable, and any service interruption should not affect the user experience.

What is the best option to store the session state?

1. Store the session state in Amazon ElastiCache
2. Store the session state in Amazon CloudFront
3. Store the session state in Amazon S3
4. Enable session stickiness using elastic load balancers

QUESTION 51

A Developer is writing a serverless application that will process data uploaded to a file share. The Developer has created an AWS Lambda function and requires the function to be invoked every 15 minutes to process the data.

What is an automated and serverless way to trigger the function?

1. Deploy an Amazon EC2 instance based on Linux, and edit its /etc/crontab file by adding a command to periodically invoke the Lambda function
2. Configure an environment variable named PERIOD for the Lambda function. Set the value at 600
3. Create an Amazon CloudWatch Events rule that triggers on a regular schedule to invoke the Lambda function
4. Create an Amazon SNS topic that has a subscription to the Lambda function with a 600-second timer

QUESTION 52

A Developer attempted to run an AWS CodeBuild project, and received an error. The error stated that the length of all environment variables exceeds the limit for the combined maximum of characters. What is the recommended solution?

1. Add the `export LC_ALL="en_US.utf8"` command to the pre_build section to ensure POSIX localization
2. Use Amazon Cognito to store key-value pairs for large numbers of environment variables
3. Update the settings for the build project to use an Amazon S3 bucket for large numbers of environment variables
4. Use AWS Systems Manager Parameter Store to store large numbers of environment variables

QUESTION 53

A Development team wants to run their container workloads on Amazon ECS. Each application container needs to share data with another container to collect logs and metrics.

What should the Development team do to meet these requirements?

1. Create two pod specifications. Make one to include the application container and the other to include the other container. Link the two pods together
2. Create two task definitions. Make one to include the application container and the other to include the other container. Mount a shared volume between the two tasks
3. Create one task definition. Specify both containers in the definition. Mount a shared volume between those two containers
4. Create a single pod specification. Include both containers in the specification. Mount a persistent volume to both containers

QUESTION 54

An application deployed on AWS Elastic Beanstalk experienced increased error rates during deployments of new application versions, resulting in service degradation for users. The Development team believes that this is because of the reduction in capacity during the deployment steps. The team would like to change the deployment policy configuration of the environment to an option that maintains full capacity during deployment while using the existing instances.

Which deployment policy will meet these requirements while using the existing instances?

1. All at once
2. Rolling
3. Rolling with additional batch
4. Immutable

QUESTION 55

A company has implemented AWS CodePipeline to automate its release pipelines. The Development team is writing an AWS Lambda function that will send notifications for state changes of each of the actions in the stages.

Which steps must be taken to associate the Lambda function with the event source?

1. Create a trigger that invokes the Lambda function from the Lambda console by selecting CodePipeline as the event source
2. Create an event trigger and specify the Lambda function from the CodePipeline console
3. Create an Amazon CloudWatch alarm that monitors status changes in CodePipeline and triggers the Lambda function
4. Create an Amazon CloudWatch Events rule that uses CodePipeline as an event source

QUESTION 56

A Developer has made an update to an application. The application serves users around the world and uses Amazon CloudFront for caching content closer to users. It has been reported that after deploying the application updates, users are not able to see the latest changes.

How can the Developer resolve this issue?

1. Remove the origin from the CloudFront configuration and add it again
2. Disable forwarding of query strings and request headers from the CloudFront distribution configuration
3. Invalidate all the application objects from the edge caches
4. Disable the CloudFront distribution and enable it again to update all the edge locations

QUESTION 57

A company has three different environments: Development, QA, and Production. The company wants to deploy its code first in the Development environment, then QA, and then Production.

Which AWS service can be used to meet this requirement?

1. Use AWS CodeCommit to create multiple repositories to deploy the application
2. Use AWS CodeBuild to create, configure, and deploy multiple build application projects

3. Use AWS Data Pipeline to create multiple data pipeline provisions to deploy the application
4. Use AWS CodeDeploy to create multiple deployment groups

QUESTION 58

A Developer has been tasked by a client to create an application. The client has provided the following requirements for the application:

- Performance efficiency of seconds with up to a minute of latency
- Data storage requirements will be up to thousands of terabytes
- Per-message sizes may vary between 100 KB and 100 MB
- Data can be stored as key/value stores supporting eventual consistency

What is the MOST cost-effective AWS service to meet these requirements?

1. Amazon DynamoDB
2. Amazon S3
3. Amazon RDS (with a MySQL engine)
4. Amazon ElastiCache

QUESTION 59

An application on-premises uses Linux servers and a relational database using PostgreSQL. The company will be migrating the application to AWS and require a managed service that will take care of capacity provisioning, load balancing, and auto-scaling.

Which combination of services should the Developer use? (Select TWO.)

1. AWS Elastic Beanstalk
2. Amazon EC2 with Auto Scaling
3. Amazon EC2 with PostgreSQL
4. Amazon RDS with PostgreSQL
5. AWS Lambda with CloudWatch Events

QUESTION 60

A company runs many microservices applications that use Docker containers. The company are planning to migrate the containers to Amazon ECS. The workloads are highly variable and therefore the company prefers to be charged per running task.

Which solution is the BEST fit for the company's requirements?

1. Amazon ECS with the EC2 launch type
2. Amazon ECS with the Fargate launch type
3. An Amazon ECS Service with Auto Scaling
4. An Amazon ECS Cluster with Auto Scaling

QUESTION 61

A team of Developers require read-only access to an Amazon DynamoDB table. The Developers have been added to a group. What should an administrator do to provide the team with access whilst following the principal of least privilege?

1. Assign the **AmazonDynamoDBReadOnlyAccess** AWS managed policy to the group
2. Create a customer managed policy with read only access to DynamoDB and specify the ARN of the table for the "Resource" element. Attach the policy to the group
3. Assign the **AWSLambdaDynamoDBExecutionRole** AWS managed policy to the group
4. Create a customer managed policy with read/write access to DynamoDB for all resources. Attach the policy to the group

QUESTION 62

An application needs to generate SMS text messages and emails for a large number of subscribers. Which AWS service can be used to send these messages to customers?

1. Amazon SES

2. Amazon SQS
3. Amazon SWF
4. Amazon SNS

QUESTION 63

A website is deployed in several AWS regions. A Developer needs to direct global users to the website that provides the best performance.

How can the Developer achieve this?

1. Create Alias records in AWS Route 53 and direct the traffic to an Elastic Load Balancer
2. Create A records in AWS Route 53 and use a weighted routing policy
3. Create A records in AWS Route 53 and use a latency-based routing policy
4. Create CNAME records in AWS Route 53 and direct traffic to Amazon CloudFront

QUESTION 64

A Developer has created a task definition that includes the following JSON code:

```
"placementStrategy": [  
  {  
    "field": "attribute:ecs.availability-zone",  
    "type": "spread"  
  },  
  {  
    "field": "instanceId",  
    "type": "spread"  
  }  
]
```

What is the effect of this task placement strategy?

1. It distributes tasks evenly across Availability Zones and then distributes tasks evenly across the instances within each Availability Zone
2. It distributes tasks evenly across Availability Zones and then bin packs tasks based on memory within each Availability Zone
3. It distributes tasks evenly across Availability Zones and then distributes tasks evenly across distinct instances within each Availability Zone
4. It distributes tasks evenly across Availability Zones and then distributes tasks randomly across instances within each Availability Zone

QUESTION 65

Users of an application using Amazon API Gateway, AWS Lambda and Amazon DynamoDB have reported errors when using the application. Which metrics should a Developer monitor in Amazon CloudWatch to determine the number of client-side and server-side errors?

1. 4XXError and 5XXError
2. CacheHitCount and CacheMissCount
3. IntegrationLatency and Latency
4. Errors