# AWS Certified Developer Associate - 2018

Which of the following statements about a standard SQS queue is true:

* Messages will be delivered one or more times in first-in, first-out order.
* Messages will be delivered exactly once, but message delivery order is indeterminate.
* Messages will be delivered exactly once in first-in, first-out order.
* Messages will be delivered one or more times and message delivery order is indeterminate.

How long can a message be retained in an SQS Queue?

* 30 days
* 1 day
* 7 days
* 14 days

Which of the following statements is correct? (Choose 2)

* In DynamoDB, a primary key can be a range of values.
* In DynamoDB, a primary key must be a single-attribute
* In DynamoDB, a primary key can be composite partition/sort key.
* In DynamoDB, a primary key can be a single-attribute partition key

Your application is using SQS to send and receive messages, your application needs to receive the messages as soon as they arrive and you need to ensure the architecture is as cost efficient as possible. Which of the following approaches will optimise the cost and performance of the application?

* Enable Short Polling
* Enable Long Polling
* Reduce the total number of message queues
* Lower the message Visibility Timeout

In the CodeDeploy AppSpec file, what are hooks used for?

* To reference AWS resources that will be used during the deployment
* Hooks are reserved for future use
* To specify code, scripts or functions that you want to run at set points in the deployment lifecycle
* To specify files that you want to copy during the deployment

Which of the following platforms are supported in ElasticBeanstalk (Choose 3)

* Node.js
* Java with Tomcat
* Single Container Docker
* Chef

Which of the following are considered to be Serverless? (Choose 3)

* Elastic Beanstalk
* RDS
* DynamoDB
* API Gateway
* SNS

Your EC2 instance needs to access files located in an S3 bucket, what is the best way to enable access?

* Create an IAM role with read access to S3 and assign the role to the EC2 instance
* Create a new IAM user and grant read access to S3. Store the user's credentials locally on the EC2 instance and configure your application to supply the credentials with each API request
* Configure a bucket policy which grants read access based on the EC2 instance name
* Create a new IAM role and grant read access to S3. Store the role's credentials locally on the EC2 instance and configure your application to supply the credentials with each API request

Which of the following protocols does API Gateway support? (Choose 2)

* GraphQL
* REST
* O API
* SOAP

You are working on a Lambda function which needs to access data in RDS, which is the best approach for securely storing the encrypted database connection strings and other secrets which your function needs to use?

* Use DynamoDB to store the encrypted connection string and secrets
* Use Lambda Environment Variables
* Store the encrypted connection string and other secrets in S3
* Use Systems Manager Parameter Store

One of your junior developers has never had AWS Access before and needs access to an Elastic Load Balancer in your custom VPC. This is the first and only time she will need access. Which of the following choices is the most secure way to grant this access?

* Let her log in with Admin credentials and change the Admin password when she is finished.
* Create a new IAM user with \*only\* the required credentials and delete that IAM user after the developer has finished her work.
* None of these.
* Add that developer to a Group with the requisite access (although that group may have \*more\* permissions than are needed for the Dev to do her job).

A transport company uses a mobile GPS application to track the location of each of their 60 vehicles. The application records each vehicle's location to a DynamoDB table every 6 seconds. Each transmission is just under 1KB and throughput is spread evenly within that minute. How many units of write capacity should you specify for this table?

* 100
* 60
* 10
* 600

Which of the following specifies the correct run order for lifecycle hooks for an In-Place deployment using CodeDeploy?

* BeforeInstall, ApplicationStop, AfterInstall, ApplicationStart
* ApplicationStop, BeforeInstall, AfterInstall, ApplicationStart
* BeforeInstall, AfterInstall, ApplicationStop, ApplicationStart
* ApplicationStop, BeforeInstall, ApplicationStart, AfterInstall

You want to deploy a docker image to ECS, which command would you use to add your image to the Elastic Container Registry?

* docker push
* docker build
* docker tag
* docker pull

What is the size of one unit of read capacity?

* 4 KB
* 1 KB
* 5 KB
* 3 KB

Where would you expect to Elastic Beanstalk configuration files like healthcheckurl.config, environmentvariables.config etc?

* The root directory of your project folder
* The .ebextensions folder
* The .ebconfigurations folder
* The .ebenvironments folder

Which of the following approaches can improve the performance of your Lambda function? (Choose 2)

* Store environment variables outside the function
* Only include the libraries you need to minimize the size of your deployment package
* Package all dependencies with your deployment package
* Establish your database connections from within the Lambda execution environment to enable connection reuse

What is the recommended approach to configuring a mobile application to allow users to sign-in and sign-up to your application via Facebook?

* Use encrypted AWS credentials within your application code and store them locally on the device
* Use Cognito as an Identity Broker between your application and the Web Identity Provider
* Use IAM as an Identity Broker between your application and the Web Identity Provider
* Use a custom Lambda function to act as an Identity Broker between your application and the Web Identity Provider

If your table item's size is 3KB and you want to have 90 eventually consistent reads per second, how many read capacity units will you need to provision on the table?

* 90
* 48
* 24
* 45

Your 'forums' table has a primary key of 'comment\_id'. Using DynamoDB, you're able to query the data based on the 'comment\_id' primary key. You need to be able to query the forums table by userId. What would you add to the table during table creation time?

* A secondary index
* A new table ordered by userId
* A partition/sort primary key
* None of these

Which AWS service allows you to build and model your serverless application as a visual workflow consisting of a series of steps where the output of one stage can be input into another?

* Simple Workflow Service
* Lambda
* Step Functions
* CloudFormation

You are importing an existing API to API Gateway. Which format is supported for API definition files?

* RAML
* Swagger
* Angular
* OpenAPI

What is the maximum size of an S3 object?

* 50 GB
* 50 TB
* 5 TB
* 500 GB

You are working on a mobile phone app for an online retailer which stores customer data in DynamoDB. You would like to allow new users to sign-up using their Facebook credentials. What is the recommended approach?

* Write your own custom code which allows the user to log in via Facebook and receive an authentication token, then calls the AssumeRoleWithWebIdentity API and exchanges the authentication tokens for temporary access to DynamoDB
* After the user has authenticated with Facebook, allow them to download encrypted AWS credentials to their device so that the mobile app can access DynamoDB
* After the user has successfully logged in to Facebook and received an authentication token, Cognito should be used to exchange the token for temporary access to DynamoDB
* Embed encrypted AWS credentials into the application code, so that the application can access DynamoDB on the user's behalf.

What does the error "ProvisionedThroughputExceededException" mean in DynamoDB?

* The DynamoDB table has exceeded the allocated space.
* The DynamoDB table is unavailable.
* You exceeded your maximum allowed provisioned throughput for a table or for one or more global secondary indexes.
* There is no such error message. The correct error message would be "ProvisionedThroughputFailureException".

Which of the following platforms are supported in ElasticBeanstalk? (Choose 3)

* Passenger
* Tomcat
* JBoss
* Docker

You are working on an application for an online training company which stores product data in DynamoDB. This week, the company is running a big promotion on a few courses and this is bringing lots of new traffic to your website, causing an increased number of queries to the database. Database queries are now running much slower than usual and the Operations Team are concerned that the DynamoDB table is being throttled. Which of the following approaches would you recommend to improve read performance?

* Redesign your table to use a more distinct partition key to enable the I/O load to be more evenly distributed across partitions
* Configure the application to use scans rather than queries and run multiple scans in parallel
* Configure a DAX cluster and point the DynamoDB API calls at the DAX cluster
* Add a Read Replica and point the DynamoDB API calls at the Read Replica

You deployed a new Lambda function a few days ago and your code seems to be executing successfully, however when you check CloudWatch there isn't any log data for your function. What could be the reason for this?

* The execution role for the Lambda function did not grant permissions to write log data to CloudWatch Logs
* Your code is taking too long to execute, it could be that your function does not have enough compute resources to generate the log files
* There is an issue with S3 in your region
* The CloudWatch agent has stopped

When using Web Identity Federation and Cognito to allow a user to access an AWS service (such as an S3 bucket), which of the following is the correct order of steps?

* Users cannot use Facebook credentials to access the AWS platform.
* A user makes the AssumeRoleWithWebIdentity API Call. The user is then redirected to Facebook to authenticate. Once authenticated, the user is given an ID token. The user is then granted temporary access to the AWS platform.
* A user authenticates with Facebook first. They are then given an ID token by Facebook. An API call, AssumeRoleWithWebIdentity, is then used in conjunction with the ID token. A user is then granted temporary security credentials.
* A user logs in to the AWS platform using their Facebook credentials. AWS authenticates with Facebook to check the credentials. Temporary Security Access is granted to AWS.

Which of the following does Cognito use to manage sign-up and sign-in functionality for mobile and web applications?

* Identity Pools
* User Pools
* IAM Users
* IAM Groups

You are working on a mobile phone app for an online retailer which stores its customer data in DynamoDB. You would like to enable new users to sign-up using Facebook or Google credentials. What is the recommended approach?

* Write your own custom code which allows the user to log in via a Web Identity Provider and receive an authentication token, then calls the AssumeRoleWithWebIdentity API and exchanges the authentication tokens for temporary access to DynamoDB
* Once the user has logged in to the Web Identity Provider, use Cognito to exchange the authentication tokens for temporary access to DynamoDB
* After the user has authenticated with Facebook, allow them to download encrypted AWS credentials to their device so that the mobile app can access DynamoDB
* Embed encrypted AWS credentials into the application code, so that the application can access DynamoDB on the user's behalf

You are working as a Developer for an online retailer. Your Security Architect has requested that any files stored in S3 must be encrypted. However some teams are continuing to upload their files without encrypting them. Which of the following will ensure that only encrypted data is uploaded?

* Select the Encrypted Files Only checkbox in the S3 Permissions tab in the AWS console
* Create a bucket ACL that only allows PUT operations which include the x-amz-encryption parameter in request header
* Use a bucket policy that only allows PUT operations which include the x-amz-server-side-encryption parameter in the request header
* Tell all team members to include the x-amz-encryption parameter in request header

An IT Auditor has started in your Security Team, they will need access to read files in S3 and DynamoDB as well as the ability to describe EC2 instances. You want to ensure that only the Auditor is granted this access and that the IAM policy you create cannot mistakenly be attached to any other user. Which IAM policy type should you use?

* Custom Policy
* Customer Managed Policy
* Inline Policy
* AWS Managed Policy

You want to recieve an email whenever a user pushes code to your CodeCommit repository, how can you configure this?

* Configure a CloudWatch Events rule to send a message to SQS which will trigger an email to be sent whenever a user pushes code to the repository
* Configure Notifications in the console, this will create a CloudWatch Events rule to send a notification to an SNS topic which will trigger an email to be sent to the user
* Configure a CloudWatch Events rule to send a message to SES which will trigger an email to be sent whenever a user pushes code to the repository
* Create a new SNS topic and configure it to poll for CodeCommit events. Ask all your users subscribe to the topic to recieve notifications

Where should the appspec.yml be stored?

* In the root of your application source directory
* In the config directory in your application source directory
* In /opt
* In the .ebextentions folder

Which of the following statements relating are correct in relation to DynamoDB? (Choose 2)

* A Local Secondary Index is an index that has the a different partition key and a different sort key to the table.
* A Local Secondary Index is an index that has the same partition key as the table, but a different sort key to the table.
* You can add a Global Secondary Index to an existing table
* You can add a Local Secondary Index to an existing table

AWS recommends that you use Multipart Upload for files larger than \_\_\_\_\_.

* 5GB
* 1GB
* 100MB
* 5TB

Your application servers are behind an Application Load Balancer with sticky sessions configured. However during busy times you are occasionally finding that one of your application servers is becoming overloaded. Which of the following options could help avoid this from happening?

* Store session state locally on the EC2 instance
* Store session state in memory
* Store session state in an ElastiCache cluster
* Store session state in RDS

In order to enable encryption at rest using EC2 and Elastic Block Store, you must \_\_\_\_\_\_\_\_.

* Configure encryption using the appropriate Operating Systems file system
* Configure encryption using X.509 certificates
* Mount the EBS volume in to S3 and then encrypt the bucket using a bucket policy
* Configure encryption when creating the EBS volume

Your application is storing a lot of data in an S3 bucket called mybucket and is routinely exeeding 100 requests per second using a mix of GET, PUT and DELETE operations. Which of the following naming strategies will ensure low latency performance with S3?

* mybucket/customers/cust26347456/file1.txt
* mybucket/2018-02-07-12-00-00/cust26347456/8761file1.txt
* mybucket/2018-02-07-12-00-00/cust26347456/file1.txt
* mybucket/8761-2018-02-07-12-00-00/cust26347456/file1.txt

You are developing a online-banking website which will be accessed by a global customer base. You are planning to use CloudFront to ensure users experience good performance regardless of their location. The Security Architect working on the project asks you to ensure that all requests to CloudFront are encrypted using HTTPS. How can you configure this?

* Set the Session Protocol Policy to redirect HTTP to HTTPS
* Set the Request Protocol Policy to redirect HTTP to HTTPS
* Set the Viewer Protocol Policy to redirect HTTP to HTTPS
* Set the User Protocol Policy to redirect HTTP to HTTPS

A recent increase in the amount of users of an application hosted on an EC2 instance that you manage has caused the instances OS to run out of CPU resources and crash. The crash caused several users' unsaved data to be lost and your supervisor wants to know how this problem can be avoided in the future. Which of the following would you NOT recommend?

* Create an auto-scaling group to add more servers when demand is high.
* Take a snapshot of the EBS volume and re-deploy as a larger instance type.
* Rewrite the application so that users' unsaved data is frequently written to disk.
* Take frequent snapshots of the EBS volume during business hours to ensure users' data is backed up.

You store a new object in Amazon S3 and receive a confirmation that it has been successfully stored. You then immediately make another API call attempting to read this object. Will you be able to read this object immediately?

* Yes, unless you exceed API call limits.
* It depends, because S3 objects are not available until they have replicated to another region. This replication can take up to several seconds.
* Yes. S3 has read-after-write consistency, which means you will have access to the object immediately.
* No. S3 imposes a one second delay on all reads.

You are building an S3 hosted website and your website is accessing javascript and image files located in another S3 bucket. How can you enable this?

* S3 ACLs
* IAM roles
* S3 bucket policies
* Cross Origin Resource Sharing (CORS)

You have provisioned an RDS database and then deployed your application servers using Elastic Beanstalk. You now need to connect your application servers to the database. What should you do? (Choose 2)

* Provide the database connection information to your application
* Provide the ip address of the RDS instance to Elastic Beanstalk
* Configure Elastic Beanstalk to install a database client on your application servers
* Configure a security group allowing access to the database and add it to your environments auto-scaling group

You are planning to deploy a new version of your application using CodeDeploy. You only have a window of 2 hours to complete the deployment and test it. Your team leader is concerned about the time it could take to roll back the upgrade if it should fail. Which deployment approach would you recommend?

* In-Place
* Canary
* Blue / Green
* Rolling with additional batch

You are creating a DynamoDB table to manage your customer orders, which of the following attributes would make a good Sort Key?

* CustomerID
* OrderNumber
* OrderDate
* ProductID

Your mobile application needs to read data from DynamoDB. What is the best way to give mobile devices permissions to read from DynamoDB?

* Create an IAM role that can be assumed by an app that allows federated users.
* Connect your application to an EC2 instance with permission to read from DynamoDB.
* Issue an access key and secret access key to each user.
* Create an IAM role for your users.

You need to announce emergency downtime for a production AWS web application. This downtime notification requires different sets of instructions for different devices. All of the application users signed up to receive SNS notifications from the downtime topic when they began using the application and they are currently subscribed to this topic. What are appropriate ways for you to provide timely, device-specific instructions to end users when announcing this downtime?

* It's not possible to send SNS messages manually.
* Send multiple messages to the topic and ask users to please ignore message formats that don't pertain to them.
* Create a different topic for each subscription type, then send one topic to SMS endpoints and the other topic to email endpoints.
* Send a single message, but customize the text in the SNS message field so that each device gets only the information that is appropriate for them.

You are hosting your website in an S3 bucket located in us-east-1, however many of your users are located in India, Africa and Europe and they are experiencing long delays. How can you improve response times for these users?

* Use Elasticache to cache the content in each Region
* Create 3 additional S3 buckets in regions local to your users and replicate the data across to the new buckets
* Configure a CloudFront CDN
* Implement Connect Direct

You have configured your CI/CD process using CodePipeline, however you want to introduce a manual sign-off and approval process which needs to be completed before a new version of your application is deployed to Production. How can you achieve this?

* Use CodePipeline to handle build, compile, test and packaging activities, then manually start a CodeDeploy job to run an automated deployment of successfully tested code
* Configure two pipelines, one to handle code built and test and one to handle automated deployment. Use SNS and Lambda to trigger the Deployment Pipeline following notification of successful completion of the Build and Test Pipeline
* Use the CodePipeline Manual Approvals feature
* Configure MFA for CodeDeploy deployments

You are planning to use CodeDeploy to deploy an application for the first time to a brand new fleet of EC2 instances. Which deployment approach would you recommend?

* In-Place
* Blue / Green
* Rolling with additional batch
* Canary

You are deploying a new version of your application using a CodeDeploy In-Place upgrade. At the end of the deployment you test the application and discover that something has gone wrong. You need to roll back your changes as quickly as possible. What do you do?

* Use CodeDeploy to redeploy the previous version of the application
* Use the CodeDeploy roll back feature to seamlessly roll back to the previous version
* Point all incoming requests to your development environment while you fix the problem with the failed deployment
* Configure your load balancer to send all incoming requests to the original instances running the old version of the application

You have deployed a new version of your Lambda function, however during testing, you notice that your application is not behaving as expected. How can you roll back to the previous version of your code?

* Remap the PROD alias to point to the previous version of your function
* Make a new version of your function using the original Lambda code
* Update the $LATEST alias to point to the previous version of your function
* Redeploy your original code to $LATEST

Which HTTP response code indicates that an API call was successful?

* 300
* 500
* 400
* 200

Which of the following statements is correct?

* An EBS backed instance can be stopped and restarted.
* An Amazon VPC requires that instances be backed with EBS.
* Instance-store backed instances can be stopped and restarted.
* If you want to use auto-scaling, you must use an EBS-backed instance.

You are building a serverless web application which will serve both static and dynamic content. Which of the following services would you use to create your application? (Choose 3)

* Lambda
* EC2
* API Gateway
* RDS
* S3
* Elasticache

You can use X-Ray with applications running on which platforms? (Choose 4)

* Lambda
* ECS
* EC2
* Elastic Beanstalk
* S3

How can you configure CodeBuild to notify the DevOps team of a failure in the build process?

* Use the CodePipeline dashboard to view the CodeBuild events log
* Use CloudWatch Events and SES notifications to send an email to the DevOps team
* Add the name of the email group to the notifications section of the CodeBuild console
* Use CloudWatch Events and an SNS topic to notify subscribers of build events

You are developing a serverless application which runs on Lambda, DynamoDB and API Gateway. The application needs to support an average of 5,000 requests per second. During testing, the Test Team want to test for peaks of 2.5 x the average load (12,500 requests per second). Shortly after testing begins, your application crashes with API Gateway generating a 429 error code. What could be the reason for this?

* Your tests have caused the application to hit the default limit of 10,000 requests per second for Lambda
* Your tests have caused the application to hit the default limit of 10,000 requests per second for API Gateway
* Your Lambda function has run out of CPU, you need to increase the memory allocation in order to increase CPU capacity
* Your Lambda function has run out of memory, you need to increase CPU capacity in order to increase memory capacity

Your application is using SQS to send and receive messages. On average, it takes your application between 20 and 40 seconds to process a message and you have noticed that quite frequently, multiple application servers are attempting to process the same message which is causing issues within the application. What can you do to help prevent this from happening?

* Increase the message visibility timeout
* Enable Short Polling
* Lower the message visibility timeout
* Enable Long Polling

What is the name of the service that allows users to use their social media account to gain temporary access to the AWS platform?

* Web Identity Federation
* Web Confederation Services
* Active Directory Authentication Services
* Facebook Sign In Service

Which of the following Elastic Beanstalk deployment approaches allow you to maintain full capacity while performing an update? (Choose 2)

* All At Once
* Immutable
* Rolling With Additional Batch
* Rolling

You are developing an online hotel booking application which makes an number of requests to different back end applications to get quotes for travel related add-on services. You are using API gateway handle all the API calls and you notice that the majority of requests are for the same 5 or 6 services. How can you optimize the configuration to ensure the best performance for your application?

* Implement API Caching to cache the endpoint's response for the most popular requests
* Configure auto-scaling for the API Gateway
* Configure a CloudFront CDN in front of the API Gateway to cache the most frequent HTTP requests
* Add an ElastiCache cluster in front of your database to cache the most frequently accessed data

You have deployed a new version of your Lambda function, however the Application Support team have reported a number of issues with the new code. What is the easiest way to fix this?

* Delete the CloudFormation stack and redeploy using the previous version
* Roll back to a previous version by updating your PROD alias to point to the previous version of the function
* Troubleshoot the issue using X-Ray, then redeploy an updated version of the function
* Roll back by restoring the original function from an EBS snapshot

# AWS Certified Developer Associate – Old Exam

While working with the S3 API, you receive an error: 404 Not Found. What is the most likely cause for this error?

* BucketAlreadyExists
* NoSuchBucket
* AccessDenied
* OperationAborted

To get a list of all your DynamoDB tables, you should use which of the following operations?

* ListTable
* DescribeTables
* DescribeTable
* ListTables

You are creating a virtual data center using CloudFormation and you need to output the DNS name of your load balancer. What command would you use to achieve this?

* FN::GetAtt
* LS:ReceiveAtt
* FN::PostAtt
* LS::GetAtt

True or False: The parts of a multi-part upload will not be reassembled until the CompleteMultipartUpload operation is called.

* False
* True

While working with the S3 API, you receive an error: 403 forbidden. Which of the following error codes corresponds with this error?

* InvalidArgument
* AccessDenied
* BucketNotEmpty
* ExpiredToken

You need to announce emergency downtime for a production AWS web application. This downtime notification requires different sets of instructions for different devices. All of the application users signed up to receive SNS notifications from the downtime topic when they began using the application and they are currently subscribed to this topic. What are appropriate ways for you to provide timely, device-specific instructions to end users when announcing this downtime?

* Create a different topic for each subscription type, then send one topic to SMS endpoints and the other topic to email endpoints.
* Send a single message, but customize the text in the SNS message field so that each device gets only the information that is appropriate for them.
* Send multiple messages to the topic and ask users to please ignore message formats that don't pertain to them.
* It's not possible to send SNS messages manually.

You store a new object in Amazon S3 and receive a confirmation that it has been successfully stored. You then immediately make another API call attempting to read this object. Will you be able to read this object immediately?

* Yes, unless you exceed API call limits.
* No. S3 imposes a one second delay on all reads.
* It depends, because S3 objects are not available until they have replicated to another region. This replication can take up to several seconds.
* Yes. S3 has read-after-write consistency, which means you will have access to the object immediately.

What is the maximum long poll timeout?

* 20 seconds
* 60 seconds
* 30 seconds
* 5 minutes

Which of the following can be used when authoring a CloudFormation template? (Choose 3)

* SGML
* YAML
* Intrinsic functions
* Regular expressions

You've enabled website hosting on a bucket named 'acloud.guru' in US-East-1. Select the URL you'll receive from AWS as the URL for the bucket.

* acloud-guru.s3-website-us-east-1.amazonaws.com
* acloud.guru.us-east-1-s3-website.amazonaws.com
* acloud.guru.s3-website-us-east-1.amazonaws.com
* acloud.guru.s3-website-us-east.amazonaws.com

In DynamoDB, what is the maximum length of a partition key value?

* 1024 bytes
* 512 bytes
* 256 bytes
* 2048 bytes

Which of the following is not a common S3 API call?

* UploadPart
* DownloadBucket
* ReadObject
* CompleteMultipartUpload

True or False: A local secondary index has the same sort key as the table, but a different partition key.

* True
* False

You're using CloudFormation templates to build out staging environments. Which section of the template would you edit in order to allow the user to specify the SSH key-name at start time?

* Resources
* Parameters
* Mappings
* Outputs

You run an ad-supported photo sharing website using S3 to serve photos to visitors of your site. At some point, you find out that other sites have been linking to the photos on your site, causing financial loss to your business. What is an effective method to mitigate this?

* Remove public read access and use a signed URL with an expiry date.
* Store the photos on an EBS volume backing the web server.
* Use a CloudFront distribution for static content.
* Use security groups to block the IP addresses of the offending websites.

In DynamoDB, Control plane operations let you perform create, read, update, and delete (also called CRUD) actions on data in a table.

* False
* True

A transport company uses a mobile GPS application to track the location of each of their 60 vehicles. The application records each vehicle's location to a DynamoDB table every 6 seconds. Each transmission is just under 1KB, and throughput is spread evenly within that minute. How many units of write capacity should you specify for this table?

* 600
* 100
* 10
* 60

From the command line, which of the following should you run to get the public hostname of an EC2 instance?

* curl http://169.254.169.254/latest/meta-data/public-hostname
* curl http://169.254.169.254/latest/user-data/public-hostname
* curl http://254.169.254.169/latest/meta-data/public-hostname
* curl http://254.169.254.169/latest/user-data/public-hostname

While working with the S3 API, you receive an error: 409 Conflict. Which of the following error codes can explain this error?

* BucketAlreadyExists
* OperationAborted
* AccessDenied
* NoSuchBucket

AWS recommends that you use Multipart Upload for files larger than \_\_\_\_\_.

* 5GB
* 100MB
* 5TB
* 1GB

A single DynamoDB table partition can support a maximum of 5,000 read capacity units or 1,000 write capacity units.

* False
* True

One DynamoDB read capacity unit is equal to one strongly consistent read per second.

* False
* True

Which of these CloudFormation snippets of code will return an address that can be used to access our application from our browser if we're using a resource type of AWS::ElasticLoadBalancing::LoadBalancer with Logical ID 'ElasticLoadBalancer'?

* Fn::Join" : [ "", [ "http://", { "Fn::GetAtt" : [ "ElasticLoadBalancer", "DNSName" ]}]]
* Fn::Join" : [ "", [ "http://", { "Fn::GetAtt" : [ "ElasticLoadBalancer", "URL" ]}]]
* Fn::Join" : [ "", [ "http://", { "Ref" : [ "ElasticLoadBalancer", "DNSName" ]}]]
* Fn::Join" : [ "", [ "http://", { "Ref" : [ "ElasticLoadBalancer", "URL" ]}]]

True or False: A local secondary index is an index that has the same partition key as the table, but a different sort key.

* True
* False

True or False: A composite key comprising hash and range keys is the same thing as a composite key comprising partition and sort keys?

* True
* False

You would like to set up a static website on S3 with the least possible effort. The URL of the website is unimportant to you. Which of the following steps are necessary? (Choose 3)

* Enable static website hosting in your S3 bucket properties.
* Upload an index document to your S3 bucket.
* Create the necessary records in Route53.
* Select the 'Make Public' permission for your bucket's objects.

Your 'forums' table has a primary key of 'id'. Using DynamoDB, you're able to query the data based on the 'id' primary key. You need to be able to query the forums table by userId. What would you add to the table during table creation time?

* A secondary index
* A new table ordered by userId
* None of these
* A partition/sort primary key

Your mobile application needs to read data from DynamoDB. What is the best way to give mobile devices permissions to read from DynamoDB?

* Create an IAM role for your users.
* Issue an access key and secret access key to each user.
* Connect your application to an EC2 instance with permission to read from DynamoDB.
* Create an IAM role that can be assumed by an app that allows federated users.

What is the minimum size of an S3 object?

* 1 Bit
* 1 KB
* 0 Bytes
* 1 Byte

By default, what status message will you see if your CloudFormation stack encounters an error during creation?

* ERROR\_STACK\_DELETE
* DELETE\_IN\_PROGRESS
* ROLLBACK\_IN\_PROGRESS
* STACK\_ERROR

True or False: an SQS request can contain up to 20 individual messages, as long as the total size of the request does not exceed 256KB.

* False
* True

Which of the following will not result in a CloudFormation rollback?

* A subnet specified in the template does not exist.
* An AMI specified in the template exists in a region other than the region in which the stack is being created.
* The template specifies an EC2 instance type that is not compatible with the AMI that backs it.
* A template that contains invalid JSON syntax

You need to attach an EBS volume to an EC2 instance. Which API call should you use?

* MountEBSVolume
* AttachVolume
* MountVolume
* AttachEBSVolume

Which of the following is true about S3 server-side encryption?

* It uses AES-256 encryption.
* You must decrypt the data after transmission.
* You are responsible for your own encryption keys.
* You must decrypt the data before transmission.

A recent increase in the amount of users of an application hosted on an EC2 instance that you manage has caused the instances OS to run out of CPU resources and crash. The crash caused several users' unsaved data to be lost and your supervisor wants to know how this problem can be avoided in the future. Which of the following would you not recommend?

* Rewrite the application so that users' unsaved data is frequently written to disk.
* Create an auto-scaling group to add more servers when demand is high.
* Take a snapshot of the EBS volume and re-deploy as a larger instance type.
* Take frequent snapshots of the EBS volume during business hours to ensure users' data is backed up.

You have an application that needs to read 750 evenly distributed items of 13KB in size every 30 seconds. Your application uses strongly consistent reads. At what level should you provision your read throughput?

* 50
* 100
* 75
* 10

While working with the SQS API, your application returns HTTP status code 400. Which of the following errors might explain this result? (Choose 2)

* MissingParameter
* InvalidClientTokenId
* MissingAction
* MalformedQueryString

True or False: You can stop and restart a multi-part upload.

* False
* True

Which of the following statements about DynamoDB is true?

* DynamoDB does not support conditional writes.
* DynamoDB uses optimistic concurrency control.
* None of these.
* DynamoDB is a service of AWS RDS.

Which of the following cannot be used inside a CloudFormation template:

* Ruby statements
* Intrinsic functions
* Regular expressions
* Parameters

True or False: The only SNS notification event supported by S3 is S3:ReducedRedundancyLostObject.

* False
* True

You have software on an EC2 instance that needs to access both the private and public IP address of that instance. What's the best way for the software to get that information?

* Have the software use cURL or GET to access the instance user data.
* Have the software use cURL or GET to access the instance metadata.
* Reference the instance metadata for the private IP and the instance user data for the public IP.
* Call the EC2 API.

Using the AWS console, you are trying to Scale DynamoDB past its preconfigured maximums. Which service can you increase by raising a ticket to AWS support?

* Global Secondary Indexes
* Item Sizes
* Local Secondary Indexes
* Provisioned throughput limits

EC2 instances are launched from Amazon Machine Images (AMIs). A given public AMI:

* Can only be used to launch EC2 instances in the same AWS country as the AMI is stored.
* Can be used to launch EC2 instances in any AWS region.
* Can only be used to launch EC2 instances in the same AWS Availability Zone (AZ) as the AMI is stored.
* Can only be used to launch EC2 instances in the same AWS region as the AMI is stored.

True or False: A message is considered to be "in flight" after it's received from a queue by a consumer, but not yet deleted from the queue.

* True
* False

You are a system administrator and you need to take a consistent snapshot of your EC2 instance. Your application holds large amounts of data in cache that is not written to disk automatically. What would be the best approach to taking an application consistent snapshot?

* Shutdown the EC2 instance and detach the EBS volume, then take the snapshot.
* In the AWS console, take a snapshot and ensure that the "application consistent" check box is ticked.
* Take a snapshot using the AWS CLI.
* Take a snapshot in real time using the EC2 API.

Which of the following statements about amazon SWF is true? (Choose 3)

* A server living outside AWS can perform a worker task.
* Decision tasks occur when the state of the workflow changes.
* Amazon EC2 instances can perform a worker task.
* Humans can perform a decision task.

Which of the following services has a cost associated with its use?

* Autoscaling
* CloudFormation
* Elastic Load Balancers
* Elastic Beanstalk

True or False: in addition to XML, JSON, and unformatted text, an SQS message may contain certain Unicode characters.

* False
* True

When authenticating using Web Identity Federation, which of the following is the API call used to obtain temporary security credentials?

* AssumeRole
* GetRoleWithWebIdentity
* GetRole
* AssumeRoleWithWebIdentity

You have designed an application that stores large videos in S3. These videos are usually larger than 100Mb in size. You need to maximize upload performance. Select answers that will achieve this end. (Choose 2)

* Design the application to use multipart upload, so that the file is split in to multiple parts which are then uploaded simultaneously.
* Utilize S3 Transfer Acceleration.
* Implement a third party CDN solution.
* Require the users to use Direct Connect in order to use to application so as to maximize the upload bandwidth.

What does the error "ProvisionedThroughputExceededException" mean in DynamoDB?

* The DynamoDB table is unavailable.
* There is no such error message. The correct error message would be "ProvisionedThroughputFailureException".
* The DynamoDB table has exceeded the allocated space.
* You exceeded your maximum allowed provisioned throughput for a table or for one or more global secondary indexes.

S3 bucket names may only contain only lower case letters, periods, numbers, and dashes.

* True
* False

Your supervisor asks you to find a solution for scheduling a sequence of tasks. The sequence may take several months to complete and it is very important that no tasks are processed more than once. Which AWS service would you recommend?

* SNS
* SWF
* SQS
* SES

True or false: A global secondary index is characterized by an index key value that differs from that of the table's primary key.

* True
* False

True or False: 10.4.120.24 is a valid S3 bucket name.

* False
* True

True or false: DynamoDB supports cross-table joins.

* False
* True

True or False: You can select a specific Availability Zone in which to place your DynamoDB Table.

* False
* True

The minimum visibility timeout for an SQS message can be changed with which of the following actions?

* None of these
* OverrideMessageVisibilityMinimum
* ChangeMessageVisibility
* DecreaseMessageVisibility

Which of the following best describes Amazon ECS?

* The Elastic Container Service is a service that manages running Docker containers on a group of your EC2 instances.
* The Elastic Container Service is software that you can run and manage to orchestrate many running Docker containers.
* The Elastic Container Scheduler is a serverless system to manage running many Docker containers in a flexible and cost-effective way.
* The Elastic Container Scheduler is software that you can run and manage to orchestrate many running Docker containers.

# AWS Certified Cloud Practitioner

You are an AWS Enterprise customer with questions about billing and you overall AWS account? Which of the following AWS support personnel should you contact?

* AWS Billing and Accounts
* AWS Technical Account Manager
* AWS Concierge
* AWS Support

What is an AWS region?

* A region is an independent data center, located in different countries around the globe.
* A region is a geographical area divided into Availability Zones. Each region contains at least two Availability Zones.
* A region is a collection of Edge Locations available in specific countries.
* A region is a subset of AWS technologies. For example, the Compute region consists of EC2, ECS, Lambda, etc.

True or False: It's safer to use Access Keys than it is to use IAM roles.

* True
* False

By default, what is the maximum number of Linked Accounts per Paying Account under Consolidated Billing?

* 50
* 10
* 100
* 20

Which of the following AWS Support levels offers 24x7 support via phone or chat?

* Developer
* Business
* Basic
* Individual

Which of the following best describes the ability to scale computing resources up or down easily, while only paying for the resources used?

* Fault-tolerance
* Scalability
* Elasticity
* High Availability

True or False: Users are responsible for the security of the cloud.

* True
* False

You use containers to host your microservices, and you need to route traffic to those applications using a single load balancer. Which of the following services should you use to accomplish this?

* Route53
* CloudWatch
* Application Load Balancer
* AWS CodeDeploy

You need to find an item in a DynamoDB table using an attribute other than the item’s primary key. Which of the following operations should you use?

* GET
* Query
* POST
* Scan

Which of the following are components of the Security Pillar of the AWS Well-Architected Framework? (Choose 3)

* Customer Service
* Technical Account Management
* IAM
* Infrastructure protection
* Detective Controls

Which of the following are best practices when it comes to securing your Root AWS account? (Choose 5)

* Delete your Root access keys.
* Create individual IAM users.
* Store your Root account keys on your application for easy access.
* Apply an IAM password policy.
* Activate MFA on the Root Account.
* Delete your Root account password.
* Use groups to assign permissions.

True or False: S3 can be used to host a dynamic website, like one that runs on a LAMP stack.

* True
* False

True or False: The Standard version of AWS Shield offers automated application (layer 7) traffic monitoring.

* False
* True

Your Development team uses four on-demand EC2 instances and your QA team has 5 reserved instances, only three of which are being used. Assuming all AWS accounts are under a single AWS Organization, how will the Development team's instances be billed?

* The pricing for the reserved instances will shift from QA to Dev.
* The Dev team will be billed for two instances at on-demand prices and two instances at the reserved instance price.
* All the Dev team's instances will be billed at the on-demand rate.
* All the Dev instances will be billed at the reserved instance rate

Which of the following is the document used to grant permissions to users, groups, and roles?

* Policy
* Paradigm
* Protocol
* Passbook

True or False: To complete the process of creating a Multi-AZ RDS instance, you must copy the primary instance to a public subnet in a second Availability Zone.

* False
* True

Which of the following support plans features access to AWS support during business hours via email?

* Developer
* Enterprise
* Business
* Basic

Which of the following are principles of sound design when it comes to performance efficiency? (Choose 3)

* Have your IT staff master all new technologies.
* Democratize advanced technologies.
* Use Serverless architectures.
* Mechanical empathy
* Deploy into multiple Regions to go global in minutes.

Which of the following are principles of sound cloud design? (Choose 4)

* Limit the number of 3rd-party services.
* Infrastructure as code
* Treat your servers like pets, not cattle.
* Scalability
* Disposable resources
* Tightly-coupled components
* Assume \*everything\* will fail.

Which of the following is not part of the AWS Global infrastructure?

* Edge Locations
* Availability Zones
* Security Groups
* Regions

Which of the following EC2 instance types will realize a savings over time in exchange for a contracted term-of-service?

* Discount instances
* Spot instances
* Reserved instances
* On-demand instances

Amazon Lightsail is an example of which of the following?

* Functions as a Service
* Platform as a Service
* Software as a Service
* Infrastructure as a Service

Which of the following best describes a system that will remain operational even in the event of a component failure?

* Fault-tolerant
* Scalable
* Highly Available
* Elastic

Which of the following is AWS' Data Warehousing service?

* Snowball
* Redshift
* Elastic Map Reduce
* S3 Big Data

In order to comply with regulatory mandates, some of your data needs to be retained in perpetuity. Which of the following AWS storage services offers low-cost, long-term data archival?

* S3
* Glacier
* Redshift
* EFS

Under the Shared Responsibility model, for which of the following does AWS not assume responsibility?

* Hypervisors
* Customer data
* Physical security of AWS facilities
* Networking

True or False: Customer responsibility for the security of services in the cloud vary by service.

* False
* True

IAM policies are written using \_\_\_\_\_\_\_\_.

* SAML
* SGML
* JSON
* XML

True or False: It is best practice to store your Access Key and Secret Access Key in the .aws file in your application.

* True
* False

Which of the following are valid EC2 pricing options? (Choose 2)

* Enterprise
* Stop
* Reserved
* On-Demand

True or False: Objects stored in S3 are stored in a single, central location within AWS.

* True
* False

Which of the following best describes Availability Zones?

* Distinct locations from within an AWS region that are engineered to be isolated from failures.
* A Content Distribution Network used to deliver content to users
* Restricted areas designed specifically for the creation of Virtual Private Clouds.
* Two zones containing compute resources that are designed to automatically maintain synchronized copies of each other's data.

You need to re-create an EBS volume that you have used previously. How might you go about doing that?

* Use the copy that lives in the Auto Scaling group.
* Use a CloudFormation template to recreate the volume.
* Copy the AMI the volume was based on and spin it up.
* Re-create the volume from a snapshot.

Which of the following support plans features a < 4-hour response time in the event of an impaired production system?

* Basic
* Developer
* Individual
* Business

For a fixed monthly rate, you can choose detailed, once-a-minute monitoring of your EC2 instances.

* True
* False

Which of the following Compliance certifications attests to the security of the AWS platform regarding credit card transactions?

* PCI DSS Level 1
* ISO 27001
* SOC 2
* SOC 1

You need a “virtual hard disk” for your EC2 instance. Which of the following should you choose?

* RDS
* DDB
* S3
* EBS

True or False: Private subnets have direct, private access to the Internet.

* False
* True

Which of the following are principles of sound design when it comes to reliability? (Choose 2)

* Manage change at the individual resource level.
* When in doubt, over-provision.
* Stop guessing about your capacity requirements.
* Scale horizontally.

True or False: A CloudFront Origin can be an S3 bucket, an EC2 instance, an Elastic Load Balancer, or Route 53.

* True
* False

Which of the following acts like built-in firewalls for your virtual servers?

* Availability Zones
* Security Groups
* Route Tables
* Network Access Control Lists

True or False: AWS is responsible for the security of Edge Locations.

* False
* True

Which of the following are principles of sound design when it comes to security? (Choose 3)

* Apply security at all layers.
* Secure your physical resources.
* Implement the Principle of Least Privilege
* Enable traceability.
* Apply security to your application only.

Which of the following services will help you optimize your entire AWS environment in real time following AWS best practices?

* AWS Trusted Advisor
* AWS Shield
* AWS WAF
* AWS Inspector

You have a mission-critical application which must be globally available at all times. Which deployment strategy should you follow?

* Deploy to all Availability Zones in your home region.
* Multi-VPC in two AWS Regions
* Multi-Availability Zone
* Multi-Region

Which of the following AWS services allows you to run complex analytic queries against petabytes of structured data, using sophisticated query optimization, columnar storage on high-performance local disks, and massively parallel query execution.

* Kinesis
* EMR
* Redshift
* DynamoDB

Which of the following AWS services should you use to migrate an existing database to AWS?

* AWS DMS
* SNS
* Storage Gateway
* Route 53

Which of the following are advantages of cloud computing? (Choose 4)

* Increased speed and agility
* The ability to 'go global' in minutes
* Elasticity - you need not worry about capacity.
* Requires large amounts of capital
* Variable expense

Which of the following are Migration services? (Choose 2)

* AWS OpsWorks
* AWS Config
* AWS Application Discovery Service
* AWS Snowball

Which of the following are a collection of data centers within a specific region?

* Regions
* Edge Locations
* Availability Zones
* AWS Origins

True or False: Security in the cloud is the responsibility of AWS.

* True
* False

True or False: By default, all subnets within a VPC can communicate with each other.

* True
* False

Which of the following is correct?

* # of Regions > # of Availability Zones > # of Edge Locations
* # of Availability Zones > # of Regions > # of Edge Locations
* # of Edge Locations > # of Availability Zones > # of Regions
* # of Availability Zones > # of Edge Locations > # of Regions

What do Edge Locations do?

* Host a Content Delivery Network called CloudFront
* Provide independent power grids to Availability Zones
* Provide disaster recovery services
* Provide redundant backup to your AWS services

Which of the following are characteristics of cloud computing? (Choose 3)

* On-demand delivery
* Cloud charges are capital expenditures.
* Services are delivered via the Internet.
* Pay-as-you-go pricing

An EC2 instance in your VPC needs which of the following for the Internet Gateway to route its traffic to the Internet?

* Private IP address
* Public IP address
* C-Name
* A-Name

For a subnet to be public and send non-local traffic to the Internet Gateway, we must update the Route Table of the public subnet and attach which of the following to the VPC that contains the subnet?

* NAT Gateway
* Network Access Control List
* Route 53
* Internet Gateway

AWS VPC is a component of which of the following overall services categories?

* Storage
* Database
* Management Tools
* Migration Services
* Compute
* Networking and Content Delivery

True or False: By default, the Root user of every AWS account has full access to all AWS services. As such, the Root user should never be used for normal daily operations.

* False
* True

True or False: There are more Regions than there are Availability Zones.

* False
* True

Regarding Amazon Glacier, what is a Vault?

* The rules that determine who may (or may not) access archives.
* A container for storing Archives
* An object — like photos, videos, files, or documents

Which of the following support plans features unlimited (customer-side) contacts and unlimited support cases? (Choose 2)

* Business
* Basic
* Enterprise
* Developer

Which of the following are components of IAM? (Choose 4)

* Permissions
* Authenticator
* Access controls
* Users
* Groups
* Authorizer
* Roles

Which of the following best describes an AWS Region?

* A collection of databases that can only be accessed from a specific geographic region.
* A collection of data centres that is spread evenly around a specific continent.
* A console that gives you a quick, global picture of your cloud computing environment.
* A distinct location within a geographic area designed to provide high availability to a specific geography.

Which of the following are components of Auto Scaling? (Choose 3)

* Launch Configuration
* Auto Scaling Policy
* Security Group
* Resource Group
* Auto Scaling Group