

Q1)

A Developer at a company is working on a CloudFormation template to set up resources. Resources will be defined using code and provisioned based on conditions.

Which section of a CloudFormation template does not allow for conditions?

- ☒ Parameters
 - ☐ Conditions
 - ☐ Resources
 - ☐ Outputs
-

Q2)

Your client is migrating an application to the cloud that will handle thousands of requests. The application will need a load balancer and an auto scaling group and must be stateless.

Which AWS service will provide an in-memory data store for your application's session state?

- ☐ DynamoDB
 - ☐ RDS
 - ☐ S3
 - ☒ ElastiCache
-

Q3)

You are developing a highly available web application using DynamoDB for its data access.

What is the maximum number of attributes that can be combined in a primary key when you create the database?

- ☐ 4
 - ☐ 3
 - ☒ 2
 - ☐ 1
-

Q4) Which of the following best describes how KMS Encryption works?

- ☐ KMS sends the CMK to the client, which performs the encryption and then deletes the CMK
 - ☐ KMS receives CMK from the client at every Encrypt call, and encrypts the data with that
 - ☒ KMS stores the CMK, and receives data from the clients, which it encrypts and sends back.
 - ☐ KMS generates a new CMK for each Encrypt call and encrypts the data with it
-

Q5)

A company would like to deploy new application versions with Elastic Beanstalk to EC2 instances. When a deployment is executed some instances should serve requests with the old version of the application, while other instances serve new requests until the deployment is completed.

Which deployment meets this requirement without incurring costs?

- ☐ rolling with additional batches
 - ☐ all at once
 - ☒ rolling
 - ☐ blue/green
-

Q6)

A company is undergoing a compliance audit by the government. The company has hundreds of IAM users that make API calls but specifically it needs to be determined who is making KMS API calls.

Which of the following services should the audit team use?

- ☐ X-Ray
 - ☐ CloudWatch Metrics
 - ☒ CloudTrail
 - ☐ CloudWatch Alarms
-

Q7)

Your company hired an outside consultant to help with redesigning internal systems. The company wants to allow consuming applications to process nearly limitless streams of data in flight.

Which solution should the outside consultant recommend?

- ☒ Kinesis Stream
- ☐ SNS

- SQS
- Lambda

Q8)

You run a SAAS company for the healthcare industry that is used worldwide where users pay a monthly subscription. There have been requests by mobile developers to expose public API's created with API Gateway.

You decide to make the API's available to mobile developers as product offerings. Which feature will allow you to do that?

- ✔ Usage Plans and API Keys
- AWS Billing
- CloudTrail
- AWS Lambda Custom Authorizers

Q9)

A Developer is designing a system where only a single server can be used to run an application. The single server will have multiple containers of a service running.

Which services can be used to meet this requirement?

- ✔ Application Load Balancer + ECS
- Classic Load Balancer + ECS
- Application Load Balancer + Beanstalk
- Classic Load Balancer + Beanstalk

Q10)

Your global organization has an infrastructure that is deployed with Cloud Formation. One employee, in us-east-1 has created a stack 'Application1' and made an exported output with the name 'ELBDNSName'.

Another employee has created a stack for a different application 'Application2' in us-east-2 and also exported an output with the name 'ELBDNSName'. The first employee wanted to deploy the Cloud Formation stack 'Application1' in us-east-2, but it got an error. What is the cause of the error?

- Output Values in CloudFormation must have unique names within a single region
- ✔ Exported Output Values in CloudFormation must have unique names within a single region
- Exported Output Values in CloudFormation must have unique names across all regions
- Output Values in CloudFormation must have unique names across all regions

Q11)

You are configuring your CloudFront distribution to tell CloudFront where you want content to be delivered from.

When configuring settings, which protocol is not supported?

- RTMP
- HTTPS
- HTTP
- ✔ UDP

Q12)

You're a developer doing contract work for the media sector. Since you work alone, you opt for technologies that require little maintenance, which allows you to focus more on your coding. You have chosen AWS Elastic Beanstalk to assist with the deployment of your applications.

While reading online documentation you find that Elastic Beanstalk relies on a similar deployment service to provision your resources.

Which of the following services is it?

- AWS Lambda
- ✔ CloudFormation
- CodeCommit
- Systems Manager

Q13)

You have created a Java application that uses RDS for its main data storage and ElastiCache for user session storage.

The application will be deployed using Elastic

Beanstalk and each deployment performed should allow any application server to reuse the RDS database while user session data stored in ElastiCache can be created for every single deployment.

Which configuration will allow you to achieve that? (Select two)

- ElastiCache database defined externally and referenced through environment variables
- RDS database defined in .ebextensions/
- ✔ ElastiCache defined in .ebextensions/

Q14)

Your company has stored all application secrets in SSM Parameter Store. The audit team has requested to get a report to better understand when and who has issued API calls against SSM Parameter Store.

Which AWS service can you use to produce your report?

- ☐ SSM Parameter Store Access Logs in CloudWatch Logs
- ☐ SSM Parameter Store List feature
- ✔ ☒ CloudTrail
- ☐ SSM Parameter Store Access Logs in S3

Q15)

You are running workloads on AWS and have embedded database connection strings within each web server hosting your applications.

After failing a security audit you are encouraged to take a different approach where you store your secrets.

Which AWS service can you use to manage your database connection strings?

- ✔ ☒ SSM Parameter Store
- ☐ EFS
- ☐ EBS
- ☐ KMS

Q16)

A company has experienced high latency on its main application, affecting thousands of users daily.

You have been hired to redesign the application and find that the company has been using a hybrid approach where the application is hosted on EC2 instances but the databases are hosted within the corporate network.

After some research, you conclude that a first step to reducing latency is to use an in-memory cache service.

Which of the following services best meets your needs?

- ☐ DynamoDB
- ☐ RDS
- ☐ Parameter Store
- ✔ ☒ ElastiCache

Q17)

You have been hired as a new Developer with no experience using CloudFormation. To learn how it works you quickly create a template and upload it through the management console. You find that the template is missing a section that is required.

Which section of the template is required?

- ☐ Outputs
- ☐ Parameters
- ☐ Mappings
- ✔ ☒ Resources

Q18)

You have created a target group that has marked all your EC2 instances as unhealthy.

Surprisingly, when you enter the IP address of the EC2 instances in your web browser, you can access your website.

What could be the reason your instances are being marked as unhealthy? (Select two)

- ☐ The EBS volumes have been improperly mounted
- ☐ Your web-app has a runtime that is not supported by the Application Load Balancer
- ✔ ☒ The route for the health check is misconfigured
- ✔ ☒ The security group of the EC2 instance does not allow for traffic from the security group of the Application Load Balancer

Q19)

You are the administrator for the company's AWS account that manages new users.

Five new employees have been hired to a new department who will be performing the same tasks and you will need to create new IAM users for these employees.

Which approach follows best practices?

- ☐ Use only one account shared by your users
- ✔ ☒ Create a group, assign the policy to the group and the users to the group
- ☐ Never assign the same policy to two user
- ☐ Let your users have admin rights

Q20)

Your company has a workflow in AWS consisting of CodePipeline and CodeBuild. In the process, CodeBuild attempts to pull Docker images from Amazon ECR and fails with an authorization error.

Which of the following actions should you take?

- ☒ Double check your IAM permissions for CodeBuild service
 - ☐ Delete and re-create ECR repositories
 - ☐ Open an AWS support ticket
 - ☐ You first need to run an ECS instance
-

Q21)

You want to provision your own Docker images that can be used as input sources for CodeBuild.

These images will contain cached dependencies as well as special tooling for your builds that are proprietary to your company.

Which of the following services will you use to send your Docker images to?

- ☐ EFS
 - ☒ ECR
 - ☐ S3
 - ☐ EBS
-

Q22)

Your team lead has decided to make changes to a current application written in Node.js and running on a Linux server. The team lead would like to deploy the application to a Docker container, then decouple the application into microservices.

Which AWS service is best suited for this change?

- ☐ Lambda
 - ☐ ECR
 - ☒ ECS
 - ☐ EC2
-

Q23)

An application is hosted by a 3rd party and exposed at yourapp.3rdparty.com. You would like to have your users access your application using www.mydomain.com, which you own and manage under Route 53.

What record should you create?

- ☐ Create a PTR record
 - ☒ Create a CNAME record
 - ☐ Create an A record
 - ☐ Create an Alias Record
-

Q24)

You are a developer working on AWS Lambda functions that are invoked over HTTPS. The functions are invoked via REST API's using Amazon API Gateway for methods such as GET and PUT.

When a GET request is invoked by consumers all fields returned by your Lambda functions are seen. Your supervisor asks you to format the data response.

What can you do with API Gateway to satisfy the request?

- ☐ Use a stage variable
 - ☒ Use Mapping Templates
 - ☐ Deploy an interceptor shell script
 - ☐ Use a Lambda custom interceptor
-

Q25)

You are creating a Cloud Formation template to deploy your CMS application running on an EC2 instance within your AWS account.

Because you would like to deploy the application across multiple regions you have decided to create a Map of all the possible values for the base AMI.

How should you invoke the !FindInMap function?

- ☐ !FindInMap [MapName]
 - ☐ !FindInMap [MapName, TopLevelKey]
 - ☒ !FindInMap [MapName, TopLevelKey, SecondLevelKey]
 - ☐ !FindInMap [MapName, TopLevelKey, SecondLevelKey, ThirdLevelKey]
-

Q26)

You are a Developer who has been asked to do some consulting for a European company that produces smartphone cases with

embedded country flags.

The company has a new web application that needs to be built and would like users in Europe to be routed to CloudFront resources near them.

For users in any other country, CloudFront resources will need to route users to resources near them. Which routing policy meets this requirement?

- ☒ Geoproximity
- ☐ Failover
- ☐ Geolocation
- ☐ Weighted

Q27)

Your departments have distinct AWS accounts and would like to debug and trace data across accounts and visualize it in a centralized account.

What would you use to achieve that?

- ☐ CloudWatch Events
- ☐ VPC Flow Logs
- ☐ CloudTrail
- ☒ X-Ray

Q28)

A company is developing a highly available web application using stateless web servers.

Currently, the application is hosted on one EC2 instance that is installed along with Microsoft SQL Server. The company's Developer is redesigning the architecture to allow for scalability.

One of those changes will require the replacement of the relational database to a NoSQL database technology.

Which of the following services should you use given these requirements?

- ☐ ElastiCache
- ☐ Redshift
- ☒ DynamoDB
- ☐ RDS

Q29)

You are a developer at a company that creates serverless functions in AWS Lambda.

Functions are invoked by clients via AWS API Gateway, which anyone can access. Your team lead would like to control access using a 3rd party authorized mechanism.

Which authorizer should you use?

- ☐ Cognito User Pools
- ☒ Lambda Authorizer
- ☐ IAM permissions with sigv4
- ☐ API Gateway User Pools

Q30)

A company recently migrated its internal resources to a cloud serverless infrastructure. The infrastructure is composed of AWS Lambda functions, API Gateway and EC2 instances where applications utilize API Gateway.

In addition, the company enabled CloudWatch Logs for API Gateway but CloudWatch logs are not being written.

What is the likely cause of this issue?

- ☐ Ensure in-flight encryption is disabled
- ☒ Check the Service IAM permissions
- ☐ Check the CloudWatch Logs Policy
- ☐ Also enable X-Ray integration

Q31)

You have deployed a Java application to an EC2 instance where it uses the X-Ray SDK.

When testing from your personal computer, the application sends data to X-Ray but when the application runs from within EC2, the application fails to send data to X-Ray.

Which of the following does NOT help you with debugging the issue?

- ☐ EC2 Instance Role
 - ☒ X-Ray sampling
 - ☐ EC2 X-Ray Daemon
 - ☐ CloudTrail
-

Q32)

Your business requires an order-processing application that will process orders during weekdays between the hours of 8 am to 5 pm.

No operations will take place evenings or weekends and for keeping costs low, no servers must be running after hours.

Which instance type will meet these requirements?

- ☐ Classic Instances
- ☐ On-demand Instances
- ☒ Scheduled Instances
- ☐ Spot Instances

Q33)

You're a developer working on a big scale order processing application. After completing features, you commit your code to AWS CodeCommit and begin building the project with AWS CodeBuild before it gets deployed to the server.

The build is taking too long and the error points to an issue resolving dependencies from a third-party. You would like to prevent a build running this long in the future for the same reasons.

Which of the following will help?

- ☐ Use AWS CloudWatch Events
- ☐ Use AWS Lambda
- ☒ Enable CodeBuild timeouts
- ☐ Use VPC Flow Logs

Q34)

You have written an application that uploads objects onto an S3 bucket. Every single multi-part upload request is at least 1TB in size.

You expect the multi-part request to increase in size as operations begin to grow. What is the maximum file size for individual objects stored on an S3 bucket?

- ☐ infinite
- ☐ 1 TB
- ☒ 5 TB
- ☐ 50 TB

Q35)

A developer in your company has configured an AWS CodeBuild build. The build fails and the developer needs to quickly troubleshoot the issue to see which commands or settings located in the BuildSpec file are causing an issue.

Which approach will help them accomplish this?

- ☒ Run AWS CodeBuild locally
- ☐ SSH into the CodeBuild Docker container
- ☐ Freeze the CodeBuild during its next execution
- ☐ Enable detailed monitoring

Q36)

You are a developer working on an application that uses encryption heavily. You also handle the deployment of the application via AWS Elastic Beanstalk and during load testing of the application you find that the KMS requests are exceeding the per second limit.

Which of the following alternatives will help you resolve this issue?

- ☐ S3 Encrypt API Call
- ☐ KMS Encrypt API Call
- ☒ Use the Encryption SDK
- ☐ IAM Encrypt API call

Q37)

As a developer for a company working on AWS workloads, you understand that AWS CloudWatch logs are kept indefinitely and never expire.

You are given a security compliance request that requires logs to be deleted after 1 week.

Which of the following options will do that?

- ☐ CloudWatch S3 exporter
- ☐ AWS Lambda with a CloudWatch Event
- ☐ CloudWatch Log Streams
- ☒ CloudWatch log expiration policies

Q38)

You've been hired as a developer to work on an application. The application is hosted on multiple EC2 instances backed by an ASG.

All instances interact with an SQS queue. It's been noticed that a specific consumer on an EC2 instance fails to process a message, it takes up to 30 seconds for that message to be processed by other consumers.

You want to make sure other consumers may get that message faster, and don't mind introducing the risk of duplicate processing.

What change should you make?

- ☐ Use a FIFO queue
- ☐ disable LongPolling
- ☒ decrease VisibilityTimeout
- ☐ Use a lower DelaySeconds

Q39)

Your company has configured AWS Organizations to manage multiple AWS accounts. Within each AWS account, there are many CloudFormation scripts running.

Your manager has requested that each script output the account number of the account the script was created in.

Which Pseudo parameter will you use to get this information?

- ☐ AWS::Region
- ☐ AWS::NoValue
- ☐ AWS::StackName
- ☒ AWS::AccountId

Q40)

As a Developer, you have the responsibility of maintaining the infrastructure of the company's technology. The company is limited in the number of engineers it can hire and need to keep maintenance very low.

One of those assets under your maintenance is AWS Lambda functions and you would like to deploy new versions and shift traffic to them.

Which AWS service meets your needs?

- ☒ CodeDeploy
- ☐ CodeBuild
- ☐ CodeCommit
- ☐ CodePipeline

Q41)

You are a developer for a web application written in .NET which uses the AWS SDK.

You need to implement an authentication mechanism that returns a JWT (JSON Web Token).

Which AWS service will help you with token handling and validation?

- ☐ Cognito Identity Pools
- ☐ API Gateway
- ☐ Cognito Sync
- ☒ Cognito User Pools

Q42)

You are creating an Amazon DynamoDB table that will hold game scores for a Node.js application and needs to perform many kinds of queries using different attributes as query criteria.

Which of the following will help you achieve that?

- ☒ Create a GSI
- ☐ Call Scan
- ☐ Create a LSI
- ☐ Migrate away from DynamoDB

Q43)

A company has configured a continuous delivery service using AWS CodePipeline.

The stages of a software release have been modeled and the pipeline created will copy files or changes that will be worked on by the actions and stages.

Which of the following AWS service will assist in the storage of these files?

- ☐ AWS Lambda
- ☐ SQS
- ☐ EFS
- ☒ S3

Q44)

You are a developer in a manufacturing company that has several servers on-site. The company decides to move new development to the cloud using serverless technology.

You decide to use the AWS Serverless Application Model (AWS SAM) and work with an AWS SAM template file to represent your serverless architecture.

Which of the following is not a valid serverless resource type?

- ☐ AWS::Serverless::Api
 - ☒ AWS::Serverless::Function
 - ☒ AWS::Serverless::UserPool
 - ☐ AWS::Serverless::SimpleTable
-

Q45)

A Developer was called to fix an issue with a system that uses SQS. The SQS consumers take an unpredictably long time to process messages and therefore some consumers are receiving duplicate messages from the SQS queue.

Which action should be taken to resolve the issue?

- ☐ Change the VisibilityTimeout of the Queue
 - ☒ Use the ChangeMessageVisibility API at the Consumer Level
 - ☐ Use DeleteMessage at the Consumer Level
 - ☐ Use Long Polling
-

Q46)

A developer has been asked to create an application that can be deployed across a fleet of EC2 instances.

The configuration must allow for full control over the deployment steps using blue-green deployment.

Which service will help you achieve that?

- ☐ Elastic Beanstalk
 - ☒ CodeDeploy
 - ☐ CodeBuild
 - ☐ CodePipeline
-

Q47)

An organization is investigating an issue where ten virtual machines were terminated unexpectedly.

You have been hired as an independent consultant to find out how this happened.

Which AWS service will assist with this task?

- ☒ CloudTrail
 - ☐ EC2 Logs
 - ☐ CloudWatch
 - ☐ Config
-

Q48)

A developer has been asked to create an AWS Elastic Beanstalk environment. The environment will handle deployment for an application that has high traffic and runs 24/7.

You would like to deploy a new application version using Beanstalk but don't want to bring your capacity down.

You are also very cost conscious and want to ensure any added cost will be minimal. Which deployment meets this need?

- ☐ all at once
 - ☒ rolling with additional batches
 - ☐ rolling
 - ☐ blue/green
-

Q49)

You have configured the AWS CLI on your workstation. Your default region is us-east-1 and your IAM user has permissions to operate commands on services such as EC2, S3, and RDS in any region.

You would like to execute a command to stop an EC2 instance in the us-east-2 region.

What must you do to achieve this?

- ☒ Use the --region parameter
 - ☐ You need to override the default region use aws configure
 - ☐ You should create a new profile just for that other region
 - ☐ Use boto3 dependency injection
-

Q50)

You are working with a template document written in YAML that represents the architecture of a serverless application.

When you read the document you see the first line contains Transform: 'AWS::Serverless-2016-10-31'.

What does the Transform section in the document represent?

- ☒ It is a SAM template
- ☐ It is an intrinsic function
- ☐ It is a Lambda function definition
- ☐ It's a CloudFormation Parameter

Q51)

You have chosen AWS Elastic Beanstalk to upload your application code and allow it to handle details such as provisioning resources and monitoring.

When creating configuration files for AWS Elastic Beanstalk which naming convention should you follow?

- ☐ .config_ebextensions
- ☐ .config/.ebextensions
- ☒ .ebextensions/.config
- ☐ .ebextensions_.config

Q52)

A company has created a software delivery process using AWS CodePipeline.

The Developer has managed to model all the resources and has executed the pipeline and during the process, the pipeline fails due to an authorization error.

Which step should be taken first to solve the issue?

- ☐ Check the recent changes in CloudWatch
- ☐ Check changes in CloudTrail
- ☐ Audit the S3 bucket CORS policy where the artifacts are stored
- ☒ Check the Service IAM permissions

Q53)

You're a developer for Movie Gallery, a company that just migrated to the cloud. A database must be created using NoSQL technology to hold movies that are listed for public viewing.

You are taking an important step in designing the database with DynamoDB and need to choose the appropriate partition key.

Which of the following unique attributes satisfies this requirement?

- ☒ movie_id
- ☐ producer_name
- ☐ lead_actor_name
- ☐ movie_language

Q54)

A company is starting to automate the creation of ECS clusters using CloudFormation.

The process has worked for a while, but after creating task definitions and assigning roles, engineers discover that the tasks for containers are not using the permissions assigned to them.

Which ECS config must be set in /etc/ecs/ecs.config to allow ECS tasks to use IAM roles?

- ☒ ECS_ENABLE_TASK_IAM_ROLE
- ☐ ECS_ENGINE_AUTH_DATA
- ☐ ECS_AVAILABLE_LOGGING_DRIVERS
- ☐ ECS_CLUSTER

Q55)

You are a developer writing a CloudFormation template written in YAML. Your template will consist of the creation of EC2 instances and one RDS resource.

Once your resources are created you would like to output the connection endpoint for the RDS database.

Which intrinsic function returns the value needed?

- ☒ !GetAtt
- ☐ !Ref
- ☐ !Sub
- ☐ !FindInMap

Q56)

You're a developer maintaining a web application written in .NET. The application makes references to public objects in a public S3 accessible bucket using a public URL.

While doing a code review your colleague advises that the approach is not a best practice because some of the objects contain private data. After the administrator makes the S3 bucket private you can no longer access the S3 objects but you would like to create an application that will enable people to access some objects as needed with a time policy constraint.

Which of the following options will give access to the objects?

- ☐ Using Routing Policy
- ☒ Using pre-signed URL
- ☐ Using bucket policy
- ☐ Not possible

Q57)

You have created an AWS CodePipeline pipeline that performs many actions in a specified order.

After careful revision of your steps, you determine that some steps need to run at the same time instead of by specified order to speed up your pipeline.

What method will achieve this?

- ☐ Ask for a 'speed boost' from the AWS support
- ☒ Re-design the pipeline to include steps to occur in parallel where possible
- ☐ Upgrade the AWS CodePipeline instance type
- ☐ Enable pipeline caching

Q58) How do I go about creating EC2 instances in an AWS edge location?

- ☐ Create a CloudFront distribution, then place the EC2 instance in that distribution zone
- ☐ Set your VPC to span into that Edge Location
- ☐ Create a new VPC in that Edge Location
- ☒ You cannot do this; edge locations are just for edge services.

Explanation:-EC2 instances can only be built in VPCs and VPCs are bound to the region. No infrastructure resources can be built in an edge location; only select services run in them.

Q59)

You have created a Lambda function which will be run on occasion, which in iterative testing seems to instantiate nearly instantly.

In production, however, the function seems to take more time to instantiate.

What could be the problem?

- ☐ AWS' testing/sandbox environment is obviously not under load, and a poor example of the way the function will run in production.
- ☐ Since Lambda leverages containers, EC2 instances must be running to direct the lambda functions to run from. If no EC2 instances are running, it takes time for those instances to start before Lambda can run the function.

☒ Lambda has a first execution penalty. Once a function is run, it can be cached and will start faster in subsequent invocations. Since this function isn't run regularly, it may be falling out of the cache and subject to the first execution penalty every time it's being called in production.

Explanation:-Lambda can incur a first run penalty, also called cold starts. Cold starts can cause slower than expected behavior on infrequently run functions, or functions with high concurrency demands. Some languages have far lower cold start times than others (e.g., Python vs Java) but this is something we must architect around. "AWS' testing/sandbox environment is obviously not under load, and a poor example of the way the function will run in production" is incorrect because AWS does not make any distinction between a sandbox/development environment and what's considered production. Except for local development, Lambda functions will perform the same whether in production or development. " Since Lambda leverages containers, EC2 instances must be running to direct the lambda functions to run from. If no EC2 instances are running, it takes time for those instances to start before Lambda can run the function" is incorrect because though Lambda does run in containers, and runs on EC2 inside AWS, the underlying instances are of no concern of ours; we will not need to wait for EC2 instances to scale. "Inefficient or bloated libraries are contributing to the slow instantiation" is incorrect because the same libraries and packages should have been in place for either development or production and will not affect execution differently.

- ☐ Inefficient or bloated libraries are contributing to the slow instantiation.

Q60)

Currently an FTP server is used to ingest data from a customer of varying sizes; some files as large as 1 GB and as small as 5 KB.

A more robust, scalable, and cost-effective solution would be preferred. Processing of the data must happen within an hour or less of the data arriving.

Of the following options, which design best suits the replacement of the FTP server design?

The clients are open to installing other clients/agents, if needed.

- ☐ Build an autoscaling fleet of EC2 instances, spread across AZs for resiliency, and fronted with a Network Load Balancer to using an EIP for each AZ. Build a CRON job that looks for new files every 10 minutes and copies the files to a processing engine.
- ☒ Create an S3 bucket; establish an S3 event that triggers a Lambda function to process each object upon upload. Have the customer utilize either the AWS CLI or other S3 client to send data to S3.

Explanation:-S3 is capable of handling objects up to 5 TB, and the AWS CLI is capable of sending files without any additional work to do so. All the

retry logic is already built into the CLI or other S3 clients. S3 has a built-in event handler which can handle each object as it is received. This is the cheapest and most robust solution of those presented. " Build an autoscaling fleet of EC2 instances, spread across AZs for resiliency, and fronted with a Network Load Balancer to using an EIP for each AZ. Build a CRON job that looks for new files every 10 minutes and copies the files to a processing engine" is incorrect because though it technically would work, it is much more complex to manage the scaling, load balancing and costs. " Create a Kinesis data stream to receive the data and write some Kinesis consumer applications to extract the uploads. The data would be placed into the stream through the Kinesis agent" will not work, as Kinesis has a maximum file size of 1 MB. " Create a small producer application which will send files SQS for the customer to leverage, and another consumer application which checks the queue for the uploaded files" will not work, as SQS is not for files, but messages. SQS also has a message maximum size of 256 KB.

- Create a Kinesis data stream to receive the data and write some Kinesis consumer applications to extract the uploads. The data would be placed into the stream through the Kinesis agent.

- Create a small producer application which will send files SQS for the customer to leverage, and another consumer application which checks the queue for the uploaded files.

Q61) How are 5xx error codes handled by an application?

- Make adjustments in the application and try again
- Verify credentials
- Do nothing, a 5xx error is benign
- ✔ Retry the operation

Explanation:-A 5xx error code suggests that there is something wrong on the back-end. Typically nothing can be done on the client side to resolve the issue. If the back-end is having difficulty, it should respond once resolved. Retries, albeit in a thoughtful manner (e.g. exponential backoff, circuit breakers, etc.), should be implemented for the back-end to resolve its issue. As an example, in a situation with S3, a 5xx error could be that the request hit a node with difficulty, while a retry will hit a new node and all will proceed normally.

Q62)

An application runs on an EC2 instance, which invokes a Lambda function directly via the SDK.

What is the best way to manage authentication for the Lambda execution?

- Store the IAM username and password credentials in the Parameter Store as secured values
- Store the IAM access key ID, and secret access key in AWS Secrets Manager
- ✔ Attach an IAM role to the associated instance

Explanation:-All these answers technically work, but the best option whenever possible is to use a role on an EC2 instance. Roles have no static credentials; thus, no credential management would be required. Credentials for a role on an EC2 instance are regularly rotated (generated by STS), thus no long-term static credentials can be used by bad actors longer than the temporary credentials exist for the role.

- Store the IAM access key ID, and secret access key within the ~/.aws/credentials file
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