1.What is AWS Lambda?

Answer:

* serverless compute service that allows you to run code without provisioning or managing servers.
* It automatically scales and manages the infrastructure required to run your code in response to events triggered by other AWS services or custom events.

2.How does AWS Lambda pricing work?

Answer: AWS Lambda pricing is based on the number of requests your functions process and the duration of execution. measured in milliseconds.

3.What are the advantages of using AWS Lambda?

Answer:

* No server management
* Automatic scaling.
* Pay-per-use pricing
* Integration with other AWS services

4.How can you trigger an AWS Lambda function?

Answer:

* Changes to data in Amazon S3 buckets
* Messages sent to Amazon SQS queues or Amazon SNS topics
* API calls made through Amazon API Gateway
* Changes to data in Amazon DynamoDB tables
* Scheduled events from Amazon CloudWatch Events
* Custom events generated by your applications

5.What is a cold start in AWS Lambda? How can you mitigate it?

Answer: A cold start in AWS Lambda refers to the initial time it takes to spin up a new execution environment for a function that hasn't been used recently. This can result in increased latency for the first invocation of the function.

Cold starts can be mitigated by:

* Keeping functions warm by invoking them periodically with scheduled events.
* Using provisioned concurrency to pre-warm execution environments.
* Optimizing code and reducing dependencies to decrease initialization time.

6.How can you troubleshoot and debug AWS Lambda functions?

Answer:

* Examining logs in Amazon CloudWatch Logs to identify errors or unexpected behavior
* Using AWS X-Ray to trace and analyze the execution of your functions.
* Testing your functions locally using tools like the AWS Serverless Application Model (SAM) CLI.

7.What are the limitations of AWS Lambda?

Answer:

* Execution time limit: Lambda functions have a maximum execution time of 15 minutes.
* Memory and disk space limits: Each function execution is allocated a maximum amount of memory and temporary disk space.
* Stateless execution: Lambda functions are stateless, meaning they don't retain any state between invocations.