AWS Lambda

AWS Lambda lets you run code without provisioning or managing servers. You pay only for the compute time you consume - there is no charge when your code is not running.

With Lambda, you can run code for virtually any type of application or backend service - all with zero administration.

Just upload your code, and Lambda takes care of everything required to run and scale your code with high availability.

AWS Lambda supports language- Python, java, Ruby, Node.JS, GO, C#, Power shell

AWS Lambda manage all the administration

1. Provisioning & capacity of the compute fleet that offers a balance of memory, CPU, network & other resources.
2. Server & OS maintaince.
3. High availability and automatic scaling
4. Monitoring fleet health.
5. Applying security patching
6. Deploying your code
7. Monitoring & logging your lambda functions.

Difference between Lambda & EC2

1. Lambda is PAAS
2. It supports only limited language.
3. Write your code & push the code into AWS Lambda.
4. You cannot log into compute instance & language.
5. EC2 is IAAS
6. No environment restriction for language in which u want to write code.
7. For the first time in EC2 , you have to choose the OS & install all required software & then push your code in EC2.
8. You can select variety of OS, instance type , network & security patches.

AWS Lambda way to trigger

1. Synchronous invoke (push)- API Gateway event is one way to trigger Lambda. These events are considered synchronous events. It means that when somebody is calling an API Gateway, it will trigger your Lambda function. It’s a synchronous event because your Lambda function has to respond to the client directly at the end of its invocation.

Elastic Load Balancing (Application Load Balancer)

Amazon Cognito

Amazon connect

Amazon Lex

Amazon Alexa

Amazon API Gateway

Amazon Cloud Front (Lambda @ Edge)

Amazon Kinesis Data Firehouse

Amazon Simple Storage Service Batch

1. Asynchronous invoke- S3 events occur when someone (or something) modifies the content of an S3 bucket. Altering the content can be achieved by creating, removing, or updating a file. While you’re defining an event, you’re able to specify what sort of action will trigger the lambda function, whether it’s creating, removing, or updating a file.

Amazon Simple Storage Service

Amazon Simple Notification Service

Amazon Simple Email Service

AWS Cloud Formation

Amazon Cloud Watch Logs

Amazon Cloud Watch Events

AWS Code Commit

AWS Config

AWS IOT

AWS IOT Events

AWS Code Pipeline

1. Poll based invokes- This invocation model is designed to allow you to integrate with AWS Stream and Queue based services with no code or server management. Lambda will poll the following services on your behalf, retrieve records, and invoke your functions. The following are supported services:

[Amazon Kinesis](https://docs.aws.amazon.com/lambda/latest/dg/with-kinesis.html)

[Amazon SQS](https://docs.aws.amazon.com/lambda/latest/dg/with-sqs.html)

[Amazon Dynamo Streams](https://docs.aws.amazon.com/lambda/latest/dg/with-ddb.html)