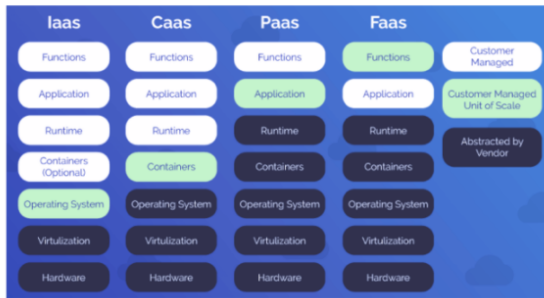


AWS Lambda

Serverless-Function as a Service (FaaS)



As you remember from the Cloud Computing Basics, there are 3 types of Cloud Service model; IaaS(Infrastructure as a Service), PaaS(Platform as a Service) and SaaS(Software as a Service).

Recently, cloud providers have improved the PaaS service and developed the FaaS service, which allows only customers' code to run as a function. FaaS is also called Serverless.

It is a category of cloud computing services that provides a platform allowing customers to develop, run, and manage application functionalities.

AWS Lambda is the first FaaS offering by a global public cloud provider.

What is Lambda?



AWS Lambda

AWS Lambda is a serverless compute service that runs your code in response to events and automatically manages the underlying computing resources for you.

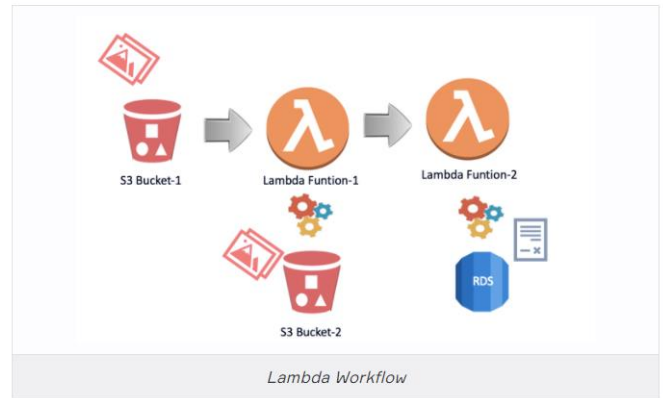
Instead of launching an EC2 instance to run your code on it, you can just deploy your code in Lambda services and you can get the same result. AWS Lambda lets you run code without provisioning or managing servers.

But, what makes lambda valuable is the trigger function. Thanks to the trigger function, Lambda automatically operates the code you deploy in it. After you upload your code to AWS Lambda, you can associate your function with specific AWS resources (e.g. a particular Amazon S3 bucket or Amazon SNS notification). Then, when the resource changes, Lambda will execute your function and manage the computing resources as needed in order to keep up with incoming requests.

In the Lambda service, you will be charged only the functions that you deployed are run. So, you pay only for the compute time you consume. But when you prefer to run your code in EC2 instance you will be charged as long as your instance is running even if your code runs or not.

Lambda also natively supports Java, Go, PowerShell, Node.js, C#, Python, and Ruby code, and provides a Runtime API which allows you to use any additional programming languages to author your functions.

How does Lambda work?



Let's see how Lambda function works with the example as you see in the picture above,

First, the user uploads a file to S3 Bucket-1,

This event causes a trigger for Lambda Function-1.

Then the Lambda-1 function starts to run. This function provides to send a copy of the uploaded file to the S3 Bucket-2

When the copied file send to S3 Bucket-2 it triggers Lambda Function-2.

Lambda Function-2 starts to run. Lambda Function-2 provides to write the log record to the RDS Database.

As you see, the Lambda function can be triggered by custom events generated by your applications/ devices or another Lambda Function.

But, there is also an API Gateway option we'll see in the following lesson to trigger the Lambda Function.

Complementary Lesson about AWS Lambda

