AWS Lambda

**Serverless Computing** is responsible for Building/Deploying Applications then Monitoring/Maintaining them.

**AWS Lambda** is a Fully-Managed Service for Serverless Computing which provides Event-Driven Invocation through Subsecond Metering. It Limits Function Runtime to 15 minutes & Supports Multiple Programming Languages. *It works through the following instructions*:

1. Upload Code to Lambda, it takes everything required to run/scale code with high availability.
2. Set Up Code to evoke other AWS Services or invoke directly through Web/Mobile App/HTTP Endpoint.
3. AWS Lambda only runs code when Invoked, *Pay for Compute Time you Consume*.

*A Use Case example would be someone capturing an image for a property listing, uploading the image through the mobile app to S3 and Lambda is invoked calling Amazon Recognition which retrieves the image from S3 & returns labels for detected company.*

***To Develop/Deploy a Lambda Function, you’d go through the following steps:***

1. Define Handler Class in Code for the Function.
2. Create Lambda Function using AWS Management Console/CLI.
3. Create/Assign AWS IAM Role to Function including permissions to access required services.
4. Upload Code for Function.
5. Invoke Function to Test it.
6. Monitor with Amazon CloudWatch after Deployed to Production.

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| **AWS Lambda Layers** |  |
| *Configure Lambda Function to use Libraries not included in Deployment Package.* | *Keep Deployment Package Small.* |
| *Avoid Errors in Code for Package Dependencies.* | *Share Libraries with other Developers.* |

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| **AWS Lambda Quotas** | | |
| *Compute/Storage Resources.* | *Function Configuration/ Deployment/Execution.* | *Lambda API Requests.* |