AWS Lambda

With S3

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Amazon S3

Object storage built to store and retrieve any amount of data from anywhere

Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance.

Amazon S3 is designed for 99.999999999% (11 9's) of durability, and stores data for millions of applications for companies all around the world.

AWS Lambda

Run code without thinking about servers. Pay only for the compute time you consume.

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.

Lambda is Tightly integrated with a lot of AWS Services

What is Serverless?

- You only worry about your Code
- No management of Infrastructure
- Function Executions are automated after Configuration

Let’s Dive immerse ourselves in Lambda

What it Does?

You can use AWS Lambda to run your code in response to events, such as changes to data in an Amazon S3 bucket or an Amazon DynamoDB table; to run your code in response to HTTP requests using Amazon API Gateway; or invoke your code using API calls made using AWS SDKs. With these capabilities, you can use Lambda to easily build data processing triggers for AWS services like Amazon S3 and Amazon DynamoDB, process streaming data stored in Kinesis, or create your own back end that operates at AWS scale, performance, and security.

Currently Supports

- Go
- Java
- Python 2 & 3
- C#
- Node.js
- PowerShell

Characteristics

1 NO SERVERS TO MANAGE

2 SUBSECOND METERING

3 CONTINUOUS SCALING

You Manage

01 | Code

02 | Memory Allocation

03 | All other Configurations

AWS Manages

01 | High Availability and Fault Tolerance

02 | Underlying Compute

03 | Network and CPU Allocation

04 | Monitoring and Logging

Lambda Concepts

1 LAMBDA FUNCTIONS

2 EXECUTION ROLES

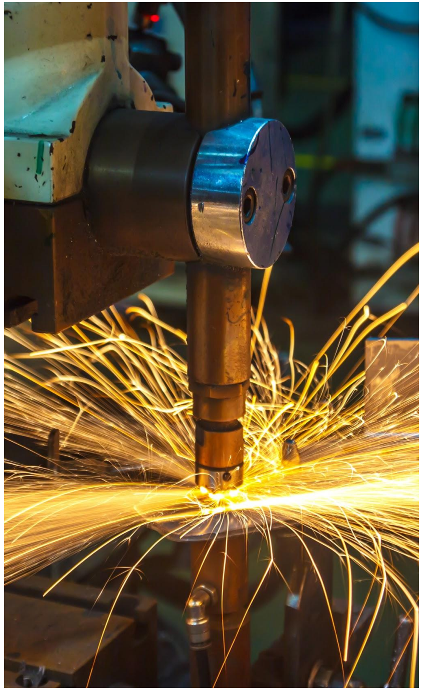
3 EVENT SOURCES

Computation Power

Lambda has limitations regarding Computation in the Lamba

Computation Power is directly proportional to the Memory Allocated to the Lambda Function

Example:
2048 MB will have '__' times the CPU share as 128 MB



A Few things to keep in Mind

01 | Event-Driven Architecture

02 | Stateless

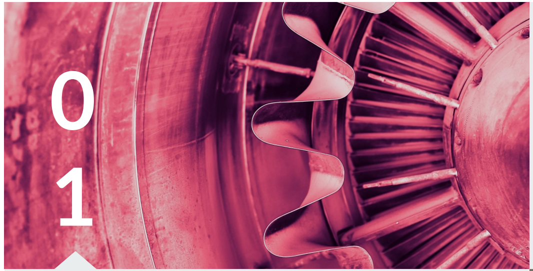
03 | Memory Allocation(128 < x < 3008 MB) delta(x)=64MB

04 | Function Execution Time (x < 900 seconds)

05 | Function and layer Storage (x < 75 GB)

06 | Concurrent Execution (x< 1000)

Process



Create a Function with the necessary Execution Roles

Set Up an Event Source and write your Code

Save

Lab

We’re gonna Create a Lambda Function which responds to an event in S3

We’ll Test it

We’ll see it Logged

Our Main Focus would be on Lambda

My Presentations are available at

https://www.github.com/imjuststarting/presentations

For more details please refer to the Official Documentation

https://docs.aws.amazon.com/lambda/latest/dg/welcome.html

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Thank you.