

What is Serverless Architecture?

Advantages & Disadvantages

Objective

- ➡ Overview of Microservices
- ➡ Introduction about Serverless Architecture
- ➡ Use of AWS services to develop Server less System
- ➡ Difference between Server-based architecture and Serverless Architecture
- ➡ Benefits of Serverless Architecture
- ➡ Introduction of AWS Lambda
- ➡ Key Benefits of AWS Lambda
- ➡ Real uses of Amazon Lambda
- ➡ Limitations of AWS Lambda
- ➡ Conclusion

Overview of Micro services

Microservices is an architectural style which asks you to break down your big system into smaller and independently deployable services

Serverless Microservice Architecture



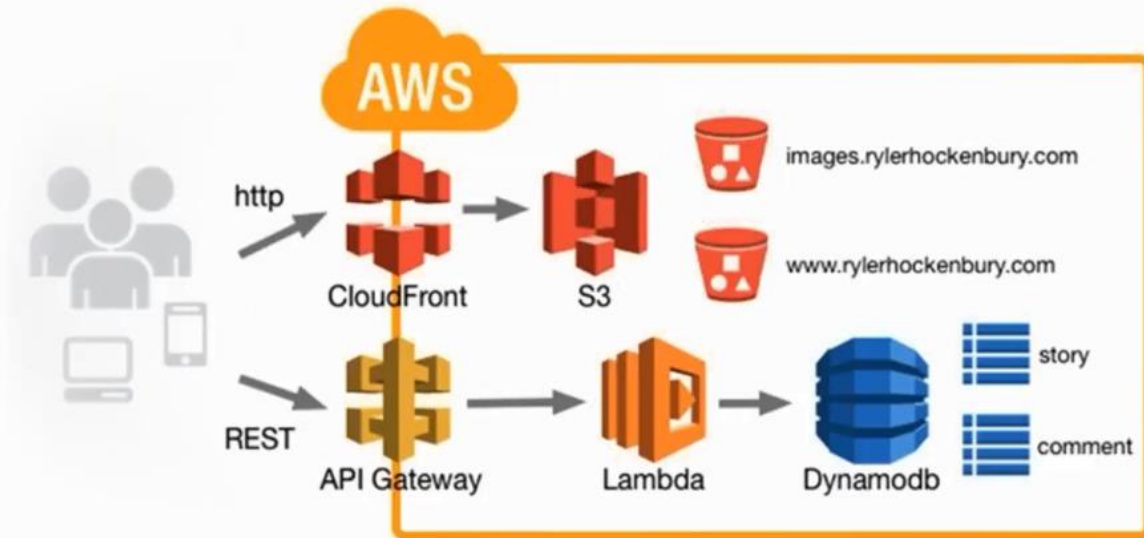
Overview of Micro services – Contd..

Benefits:

- ➡ Easier for a developer to understand.
- ➡ Each service can be deployed independently of other services so easier to deploy new versions of services frequently.
- ➡ Each team can develop, deploy and scale their services independently of all of the other teams.
- ➡ Service to be scaled automatically
- ➡ Deployed independently

Introduction about Serverless Architecture

Serverless computing allows you to build and run applications and services without having to manage infrastructure. The server management is done by AWS(Amazon Web Service).



Use of AWS services to develop Server less System

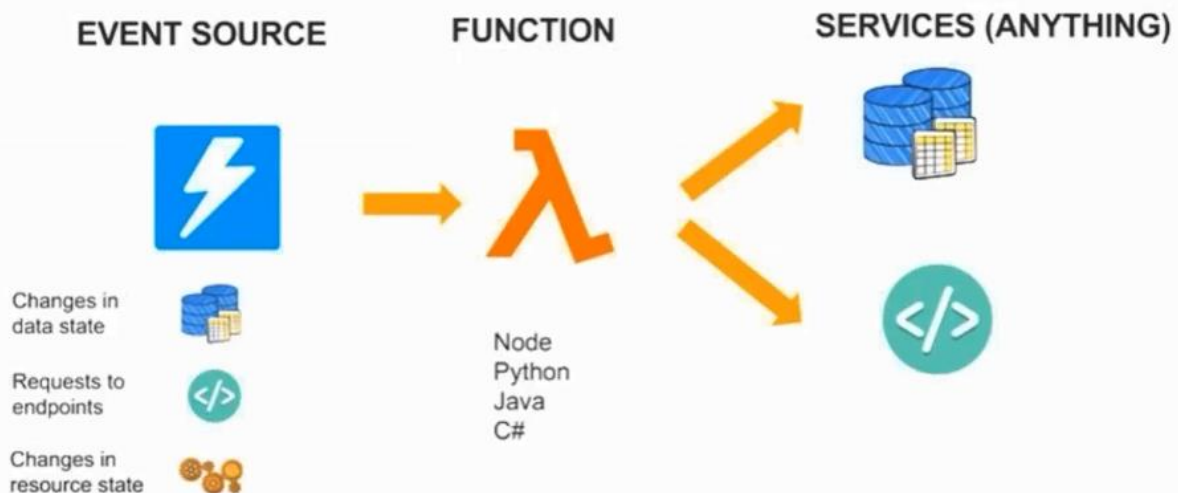


Benefits of Serverless Architecture

- ➡ No longer have to worry about scaling and descaling based on requirement.
- ➡ It actually turns out to be a lesser cost compared to maintaining servers.
- ➡ Rapid Development and Iteration.
- ➡ Serverless is not about a specific technology.
- ➡ We can't install software, we can't keep in memory cache, eg: – session data like we used to do on non-serverless computing.

Introduction of AWS Lambda

Server less + Event driven computing service



Key Benefits of AWS Lambda

- ➡ No Servers to Manage
- ➡ Continuous Scaling
- ➡ Sub-second Metering
- ➡ Bring your own code

Real uses of Amazon Lambda

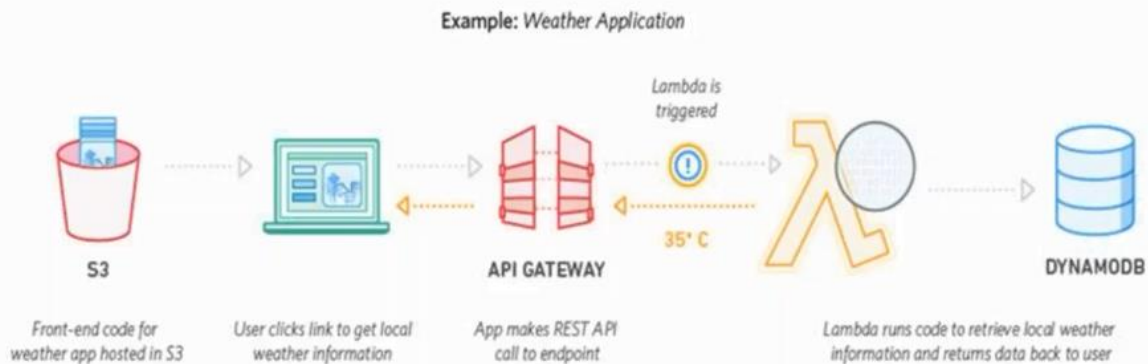
- ➡ Data Processing
- ➡ Real-time File Processing

Example: Image Thumbnail Creation



Real uses of Amazon Lambda – Contd..

- ➡ Extract, Transform, Load
- ➡ IoT Backends
- ➡ Mobile Backends
- ➡ Web Applications



Limitations of AWS Lambda

- ➡ Not available in all of the amazon AWS regions.
- ➡ **Resource limitations** per function and per account
- ➡ Deployment **package size**
- ➡ Takes some time for the Lambda function to handle a first request
- ➡ Weak in general around documentation and deployment tools
- ➡ Lambda **supports** only few programming languages
- ➡ Lambda Function Concurrent Executions **default limit** is 100 per region

Conclusion

We discussed about how Serverless Architecture is beneficial and its impact to business applications. The key benefits of going serverless still continues to be cost, auto-scaling, High availability, zero administration and faster deployment. We definitely agree that it will also mature over time.

Q & A

