DATE   :   27.02.2025

DT/NT   :   DT

LESSON :   AWS

SUBJECT: LAMBDA & API GATEWAY

BATCH   :   B 303

AWS-DEVOPS

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techproeducation.com   +1 (585) 304 29 59
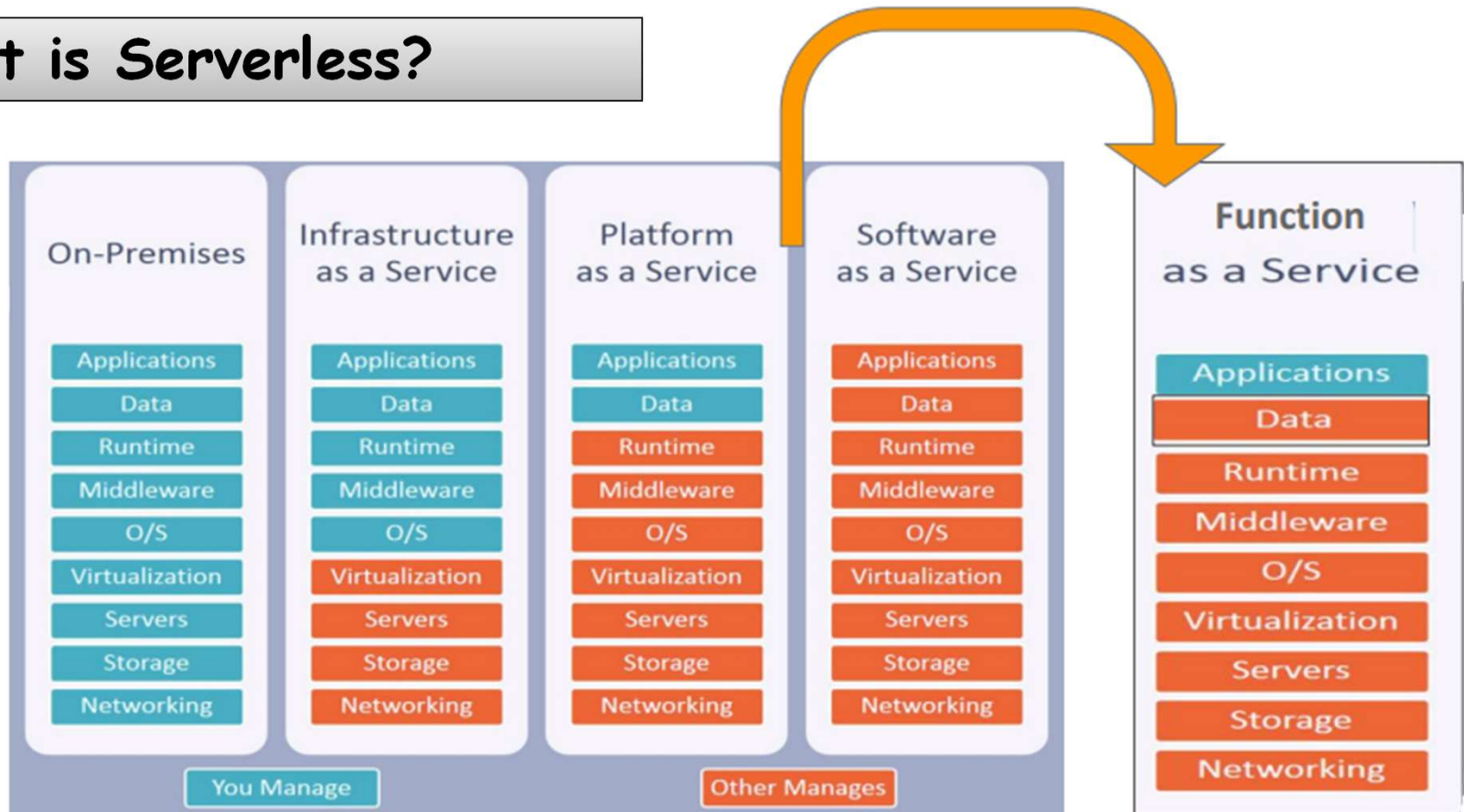
Table of Contents

▶ Introduction to Serverless
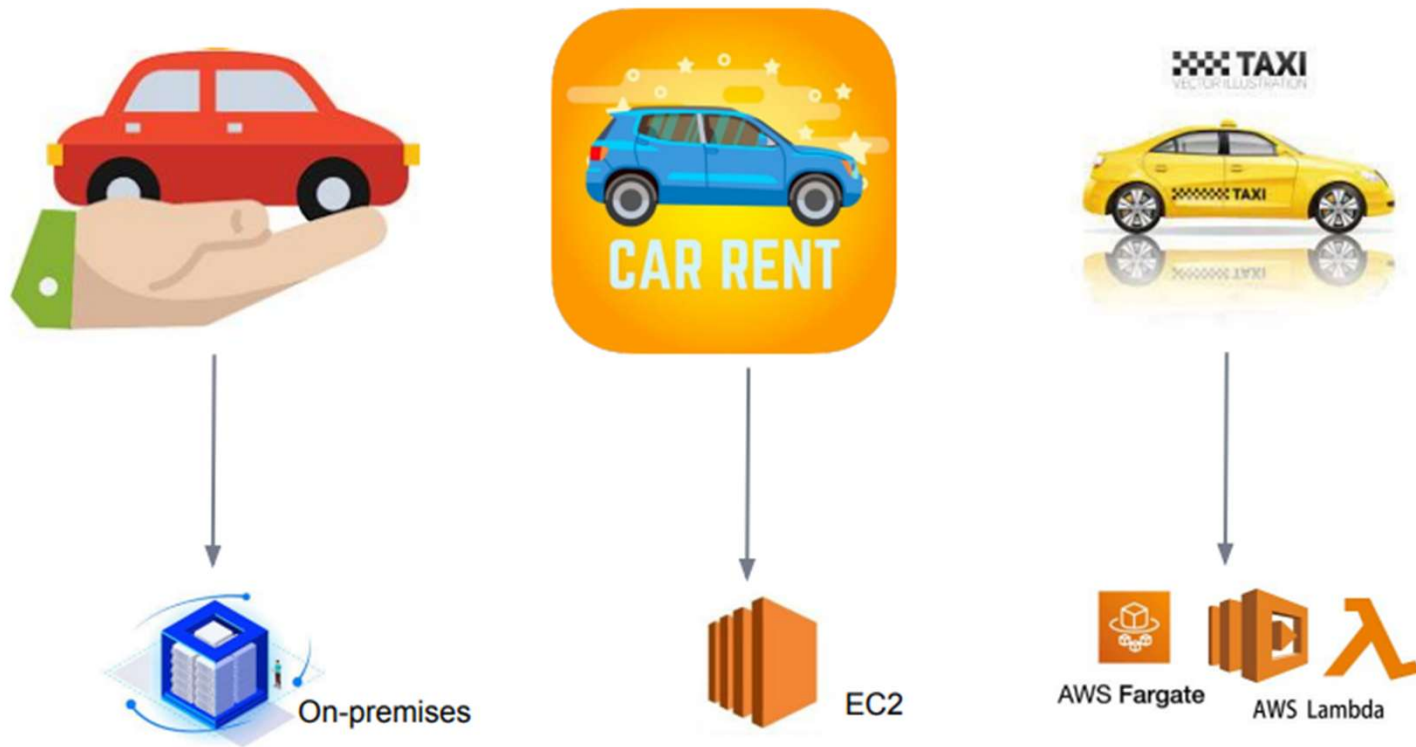▶ AWS Lambda
▶ API Gateway

Introduction to Serverless

Introduction to Serverless

What is Serverless?

On-Premises	Infrastructure as a Service	Platform as a Service	Software as a Service	Function as a Service
Applications	Applications	Applications	Applications	Applications
Data	Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware	Middleware
O/S	O/S	O/S	O/S	O/S
Virtualization	Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking	Networking

You Manage   Other Manages

Introduction to Serverless

What is Serverless?

On-premises   EC2   AWS Fargate   AWS Lambda

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Introduction to Serverless Infrastructure
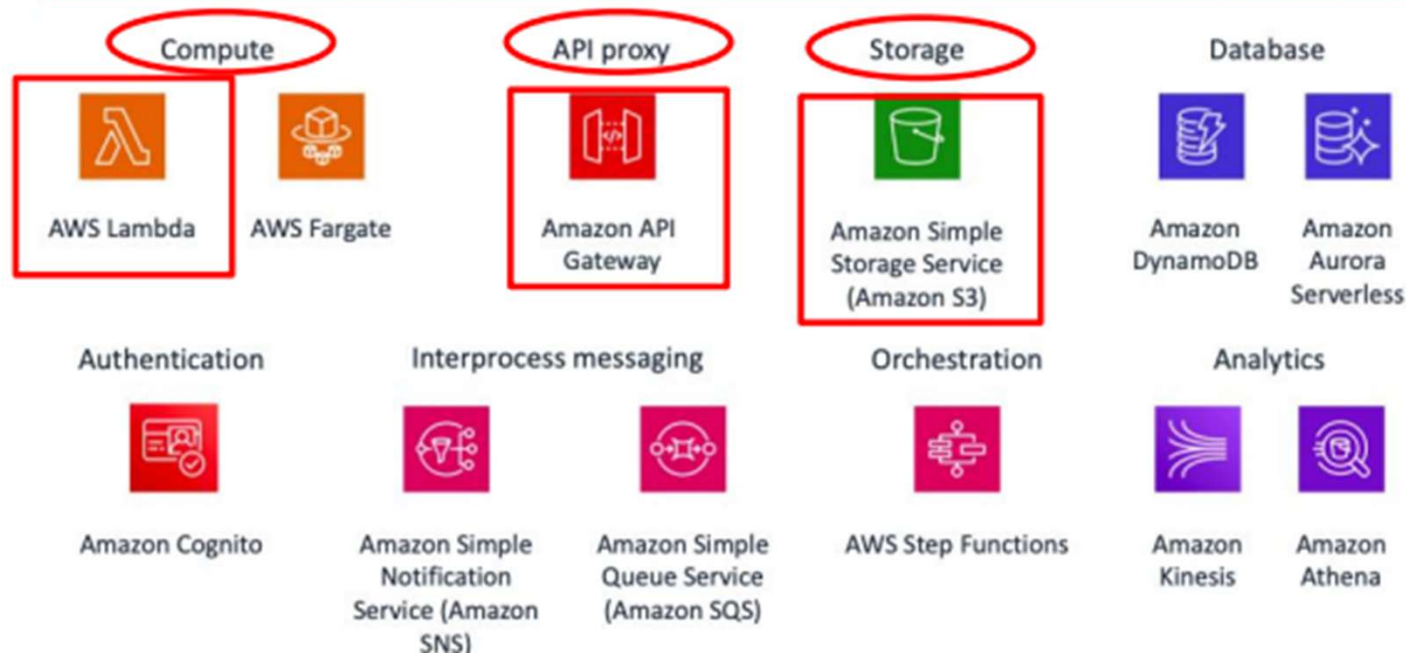
What is Serverless Infrastructure and Why?

- Run applications without servers.
- Eliminate infrastructure management
- Cost effective

Introduction to Serverless Infrastructure

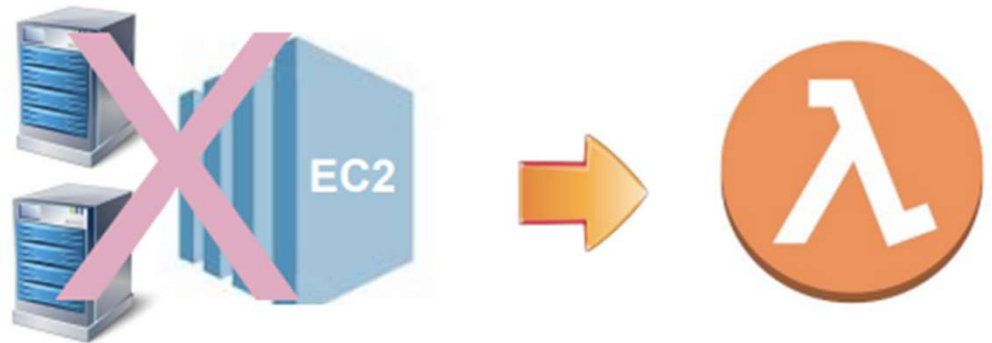## What is Serverless Infrastructure and Why?

AWS Lambda

AWS Lambda

What is Lambda?

- AWS Lambda is the first FaaS service among the global public cloud products.
- It is a serverless compute service that runs your code in response to programmed events.

AWS Lambda

What is Lambda?

- AWS Lambda lets you run code without provisioning or managing servers
- 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

How Lambda function works?

AWS Lambda

Exactly pay as you go

- You will be charged as long as your instance is running even if your code runs or not.

- You will be only charged when the functions that you deployed are run.
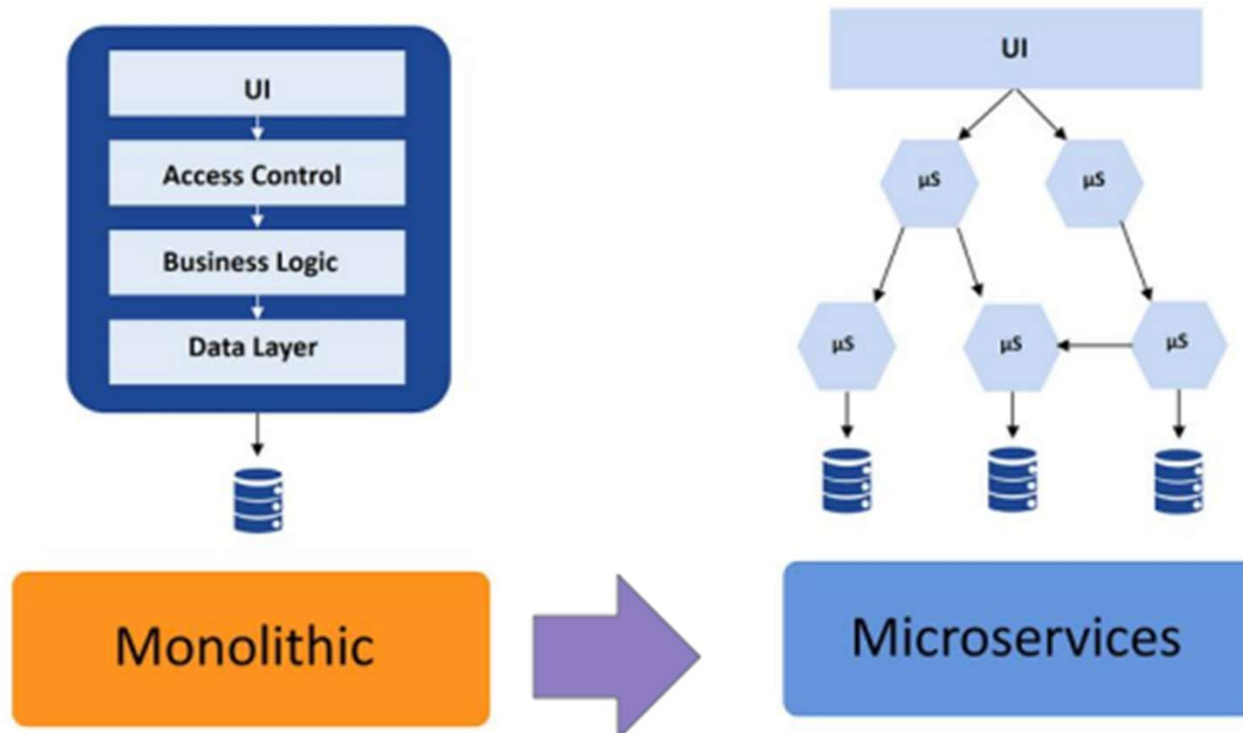
AWS Lambda

Lambda codes

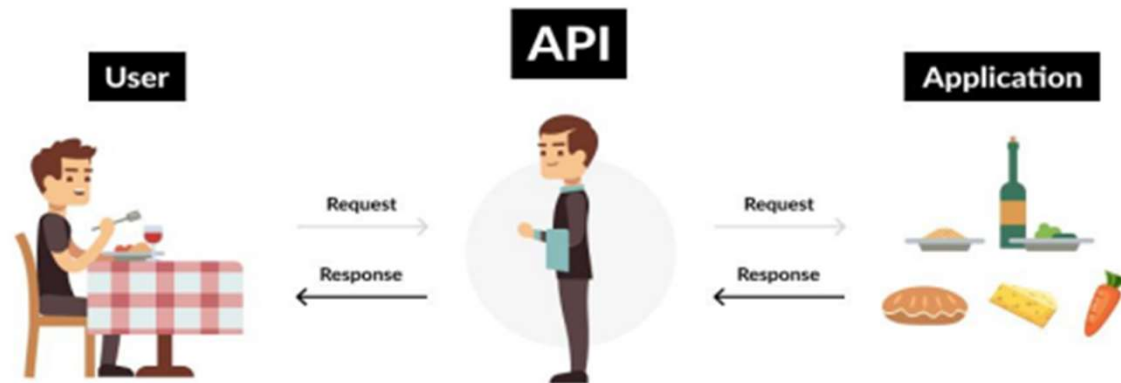- Lambda supports Java, Go, PowerShell, Node.js, C#, Python, and Ruby code.

API Gateway

API Gateway

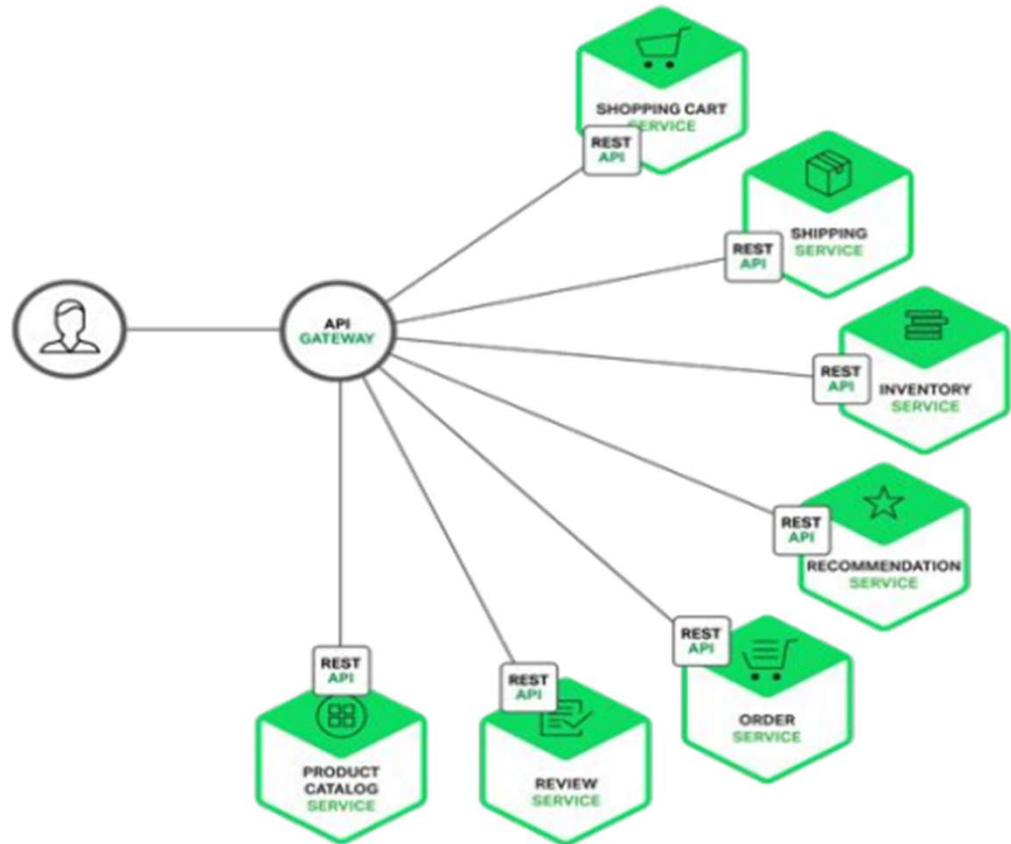# API Gateway

What is API?

- API stands for Application Program Interface. Basically, the API defines how device components can communicate with each other.
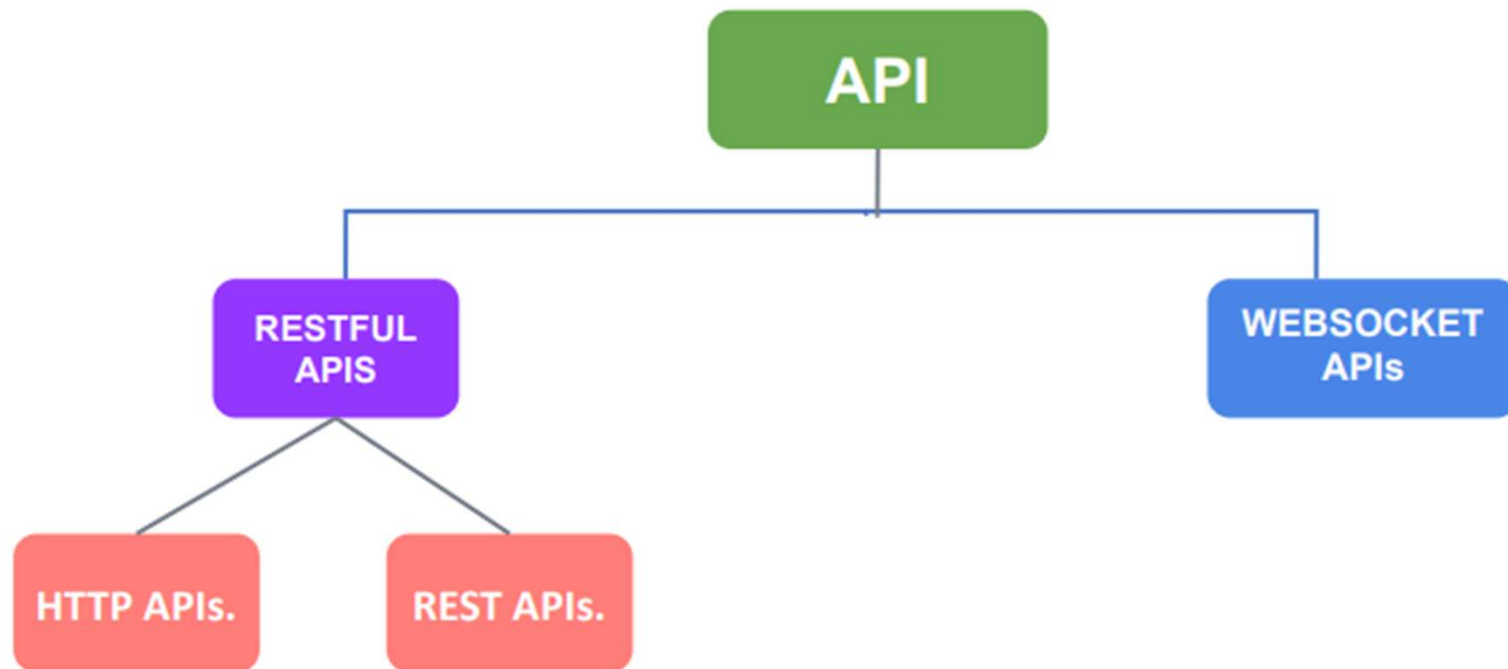
API Gateway

What is API Gateway?

The API Gateway is responsible for routing, design, and interface transfer requests.

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API Gateway

API Gateway in AWS

API Gateway

What is REST?

- REST (Representational State Transfer) is a service structure that enables easy and fast communication between client and server.
- REST runs on HTTP.
- JSON or XML type

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API Gateway

What is REST?

- Web services that use REST architecture are called RESTful services.

- GET,
- POST,
- PUT,
- DELETE

# API Gateway

Lambda and API Gateway

- Alexa
- API Gateway
- CloudTrail
- CloudWatch Events
- CloudWatch Logs
- CloudFormation
- CloudFront (Lambda@Edge)
- CodeCommit
- CodePipeline
- Cognito
- Config
- DynamoDB
- EC2
- ElastiCache
- Elastic Load Balancing

- EFS
- IoT
- IoT Events
- Kinesis Firehose
- Kinesis Streams
- Lex
- RDS
- S3
- S3 Batch
- SES
- SNS
- SQS
- Step Functions
- X-Ray

- Although you can trigger Lambda function in different way, the most common trigger of the Lambda function is API Gateway
- Thanks to Lambda and API Gateway combination you can create fully automated system.
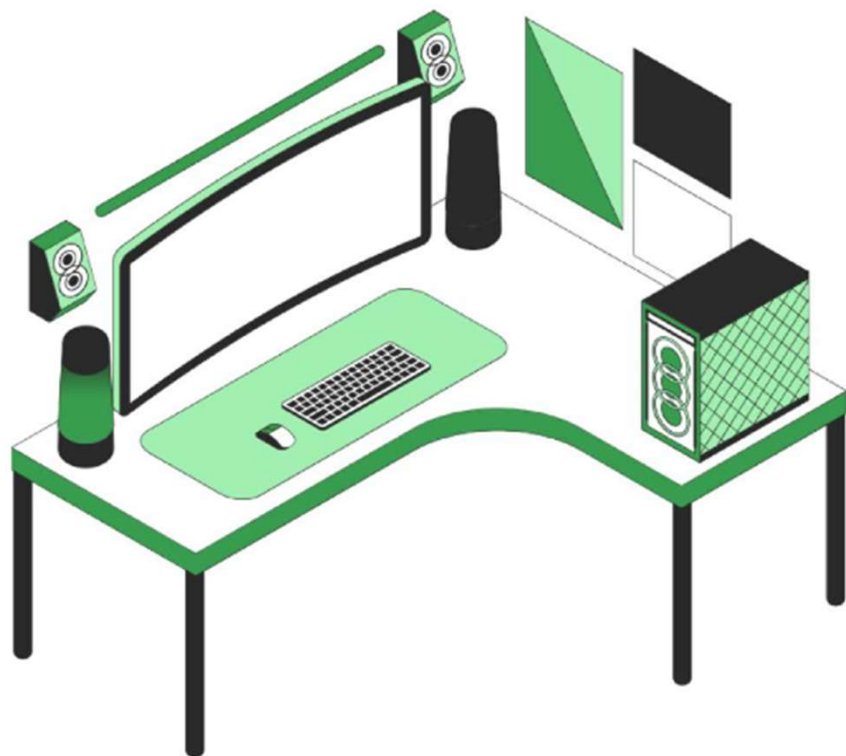
Do you have any questions?

Send it to us! We hope you learned something new.

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