

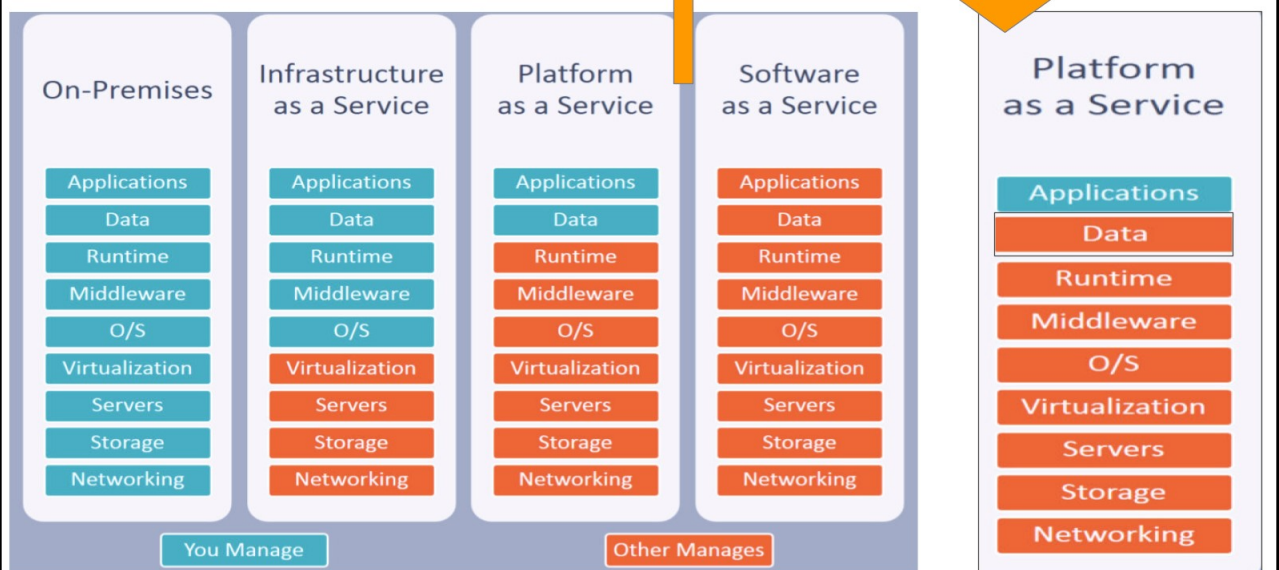
AWS Lambda & API Gateway



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Introduction to Serverless

What is Serverless?





Introduction to Serverless Infrastructure

What is Serverless Infrastructure and Why?



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



AWS Lambda

What is Lambda?

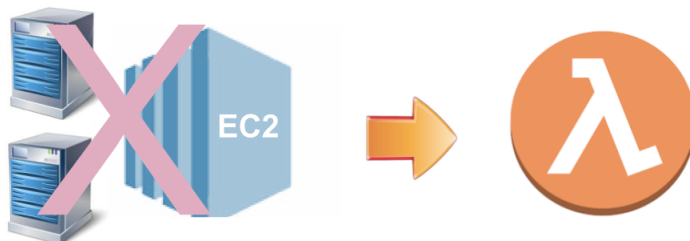


- AWS Lambda is the first FaaS service among the global public cloud products.
- It is a serverless compute service that runs your code in response to programmed events.



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.



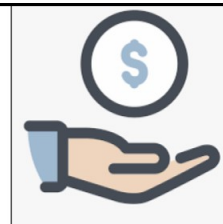
AWS Lambda

How Lambda function works?



AWS Lambda

Exactly pay as you go



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.**

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AWS Lambda

Lambda codes



Go

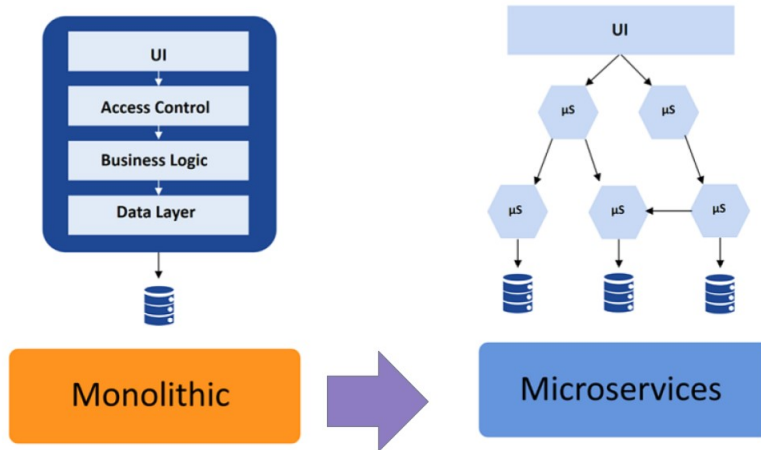


Lambda supports Java, Go, PowerShell, Node.js, C#, Python, and Ruby code.

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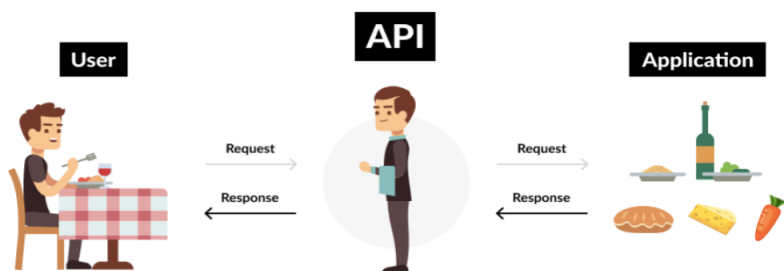
API Gateway



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API Gateway

What is API?



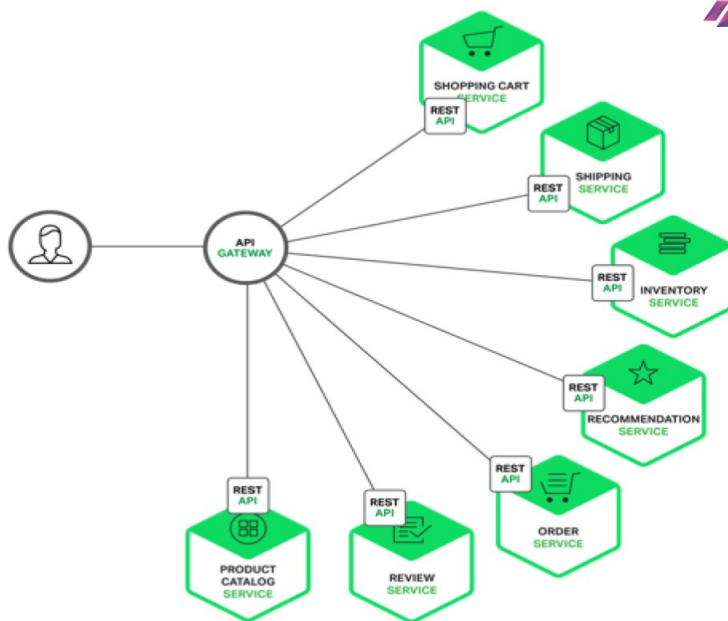
API stands for **Application Program Interface**. Basically, the API defines how device components can **communicate with each other**.



API Gateway

What is API Gateway?

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

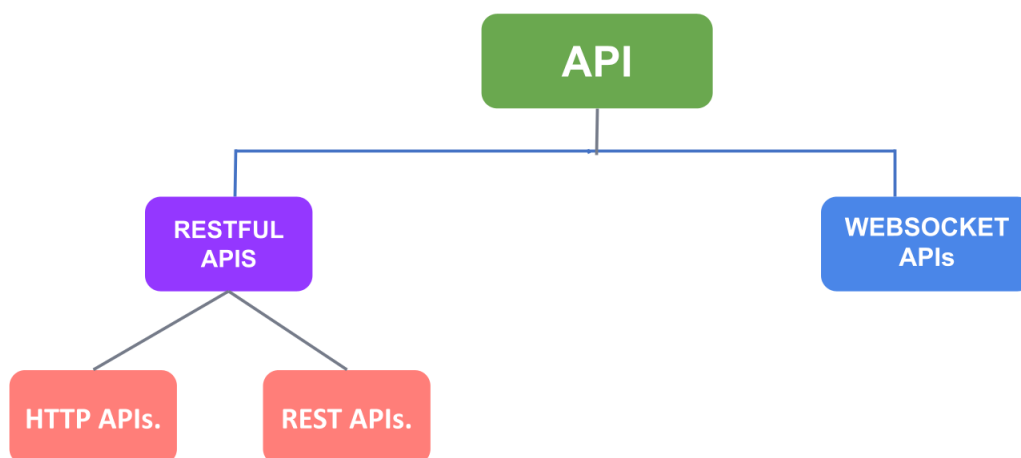


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API Gateway

API Gateway in AWS



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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

API Gateway



What is RESTful ?

- Web services that use REST architecture are called **RESTful** services.
- **GET,**
- **POST,**
- **PUT,**
- **DELETE**





AWS Lambda

Lambda and API Gateway

- Alexa
- **API Gateway**
- CloudTrail
- CloudWatch Events
- CloudWatch Logs
- CloudFormation
- CloudFront
- 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.

