



# AWS Lambda & API Gateway





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# Introduction to Serverless



# Introduction to Serverless

## What is Serverless?

- Lambda (**FaaS-Function as a Service**)
- DynamoDB
- Aurora Serverless
- API Gateway
- SQS



# Introduction to Serverless Infrastructure

## What is Serverless Infrastructure and Why?



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



# 2 AWS Lambda

# AWS Lambda

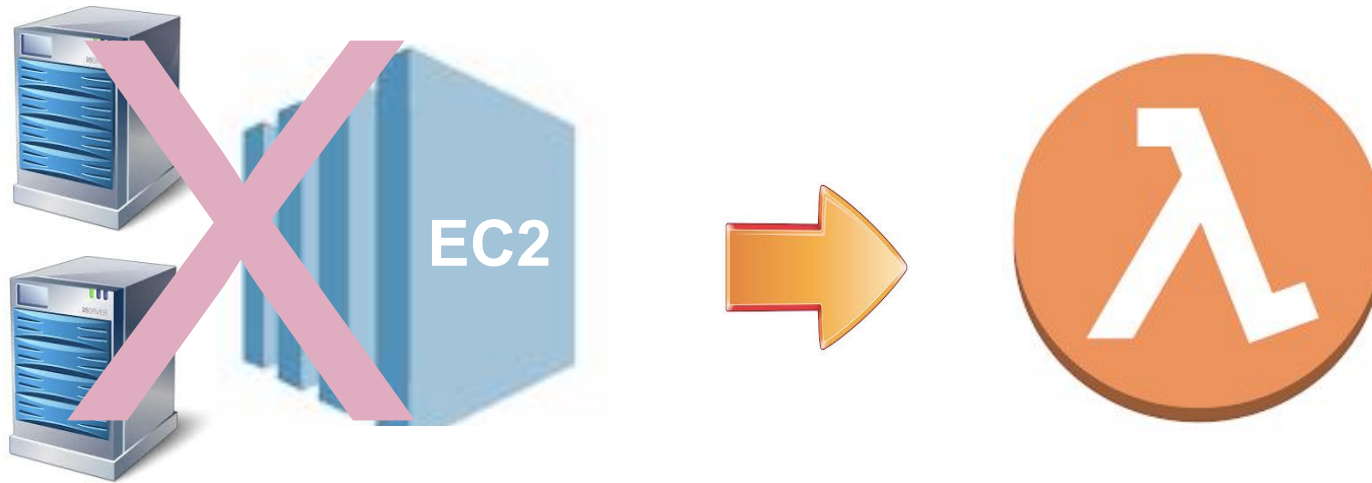
## What is Lambda?



- 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?

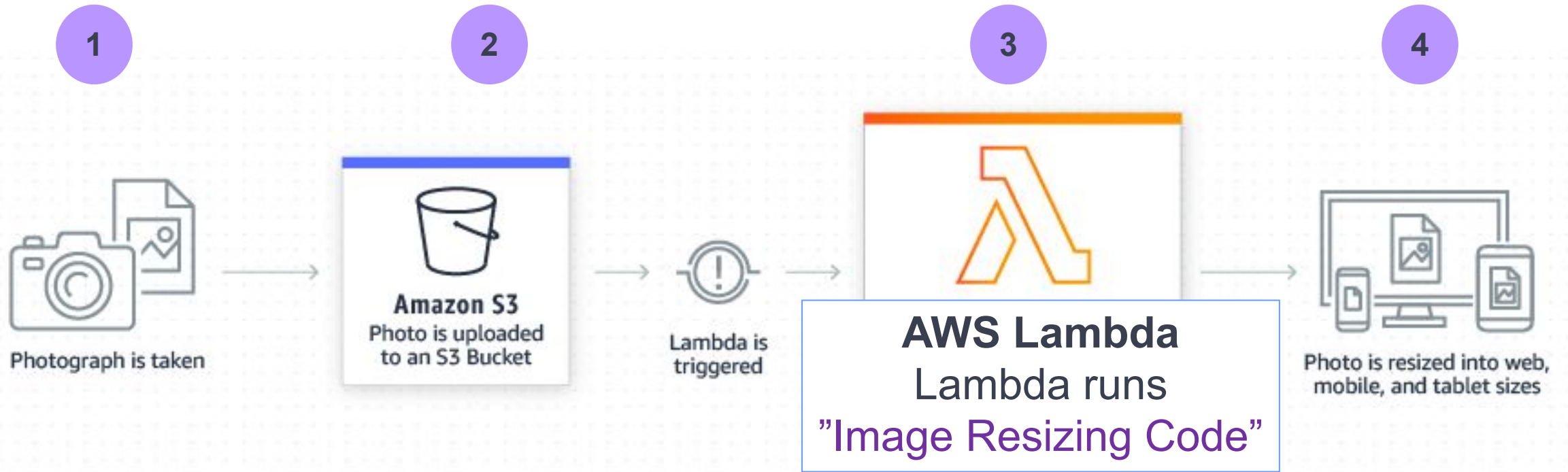


- AWS Lambda lets you run code without provisioning or managing servers
- Instead of launching an EC2 instance to run your code on it, you can just deploy your code in Lambda services and you can get the same result.



# AWS Lambda

## How Lambda function works?



# AWS Lambda

## Lambda codes



Go



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



# AWS Lambda

## 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.



# 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.

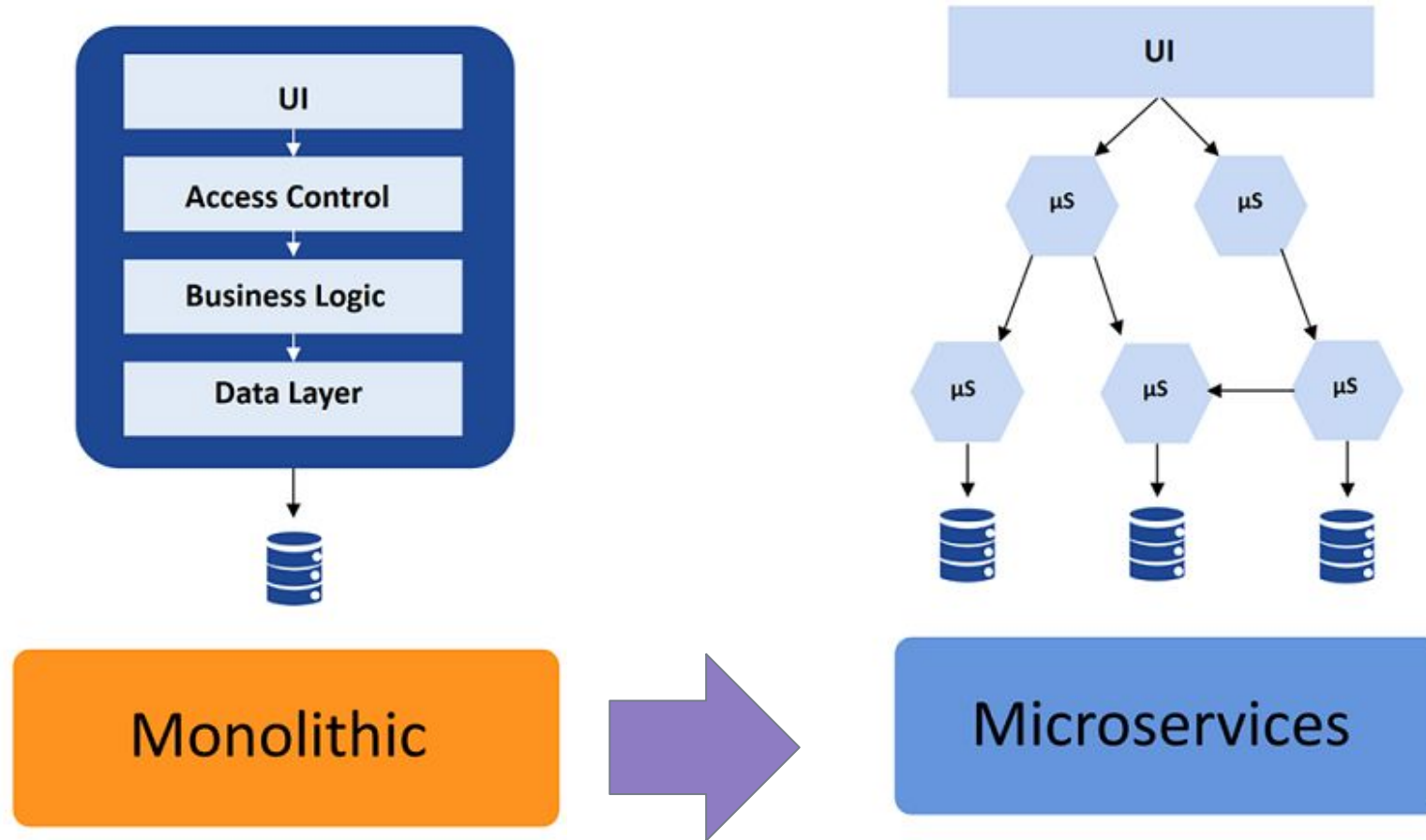
You will be **only charged when** the functions that you deployed are run.



2

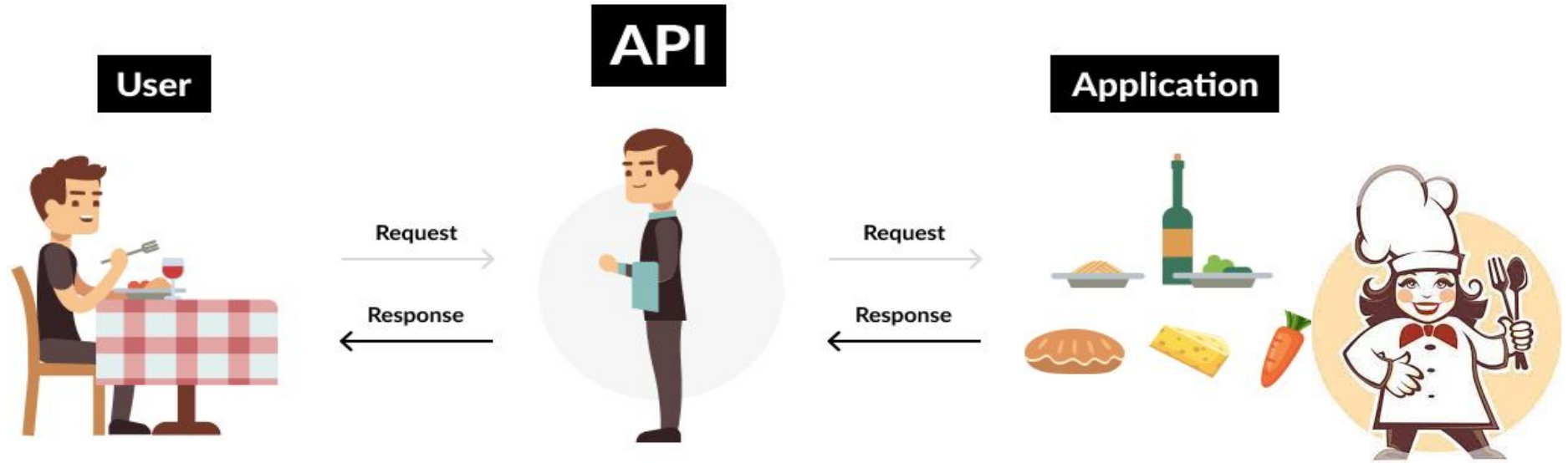
# API Gateway

# API Gateway



# API Gateway

## What is API?

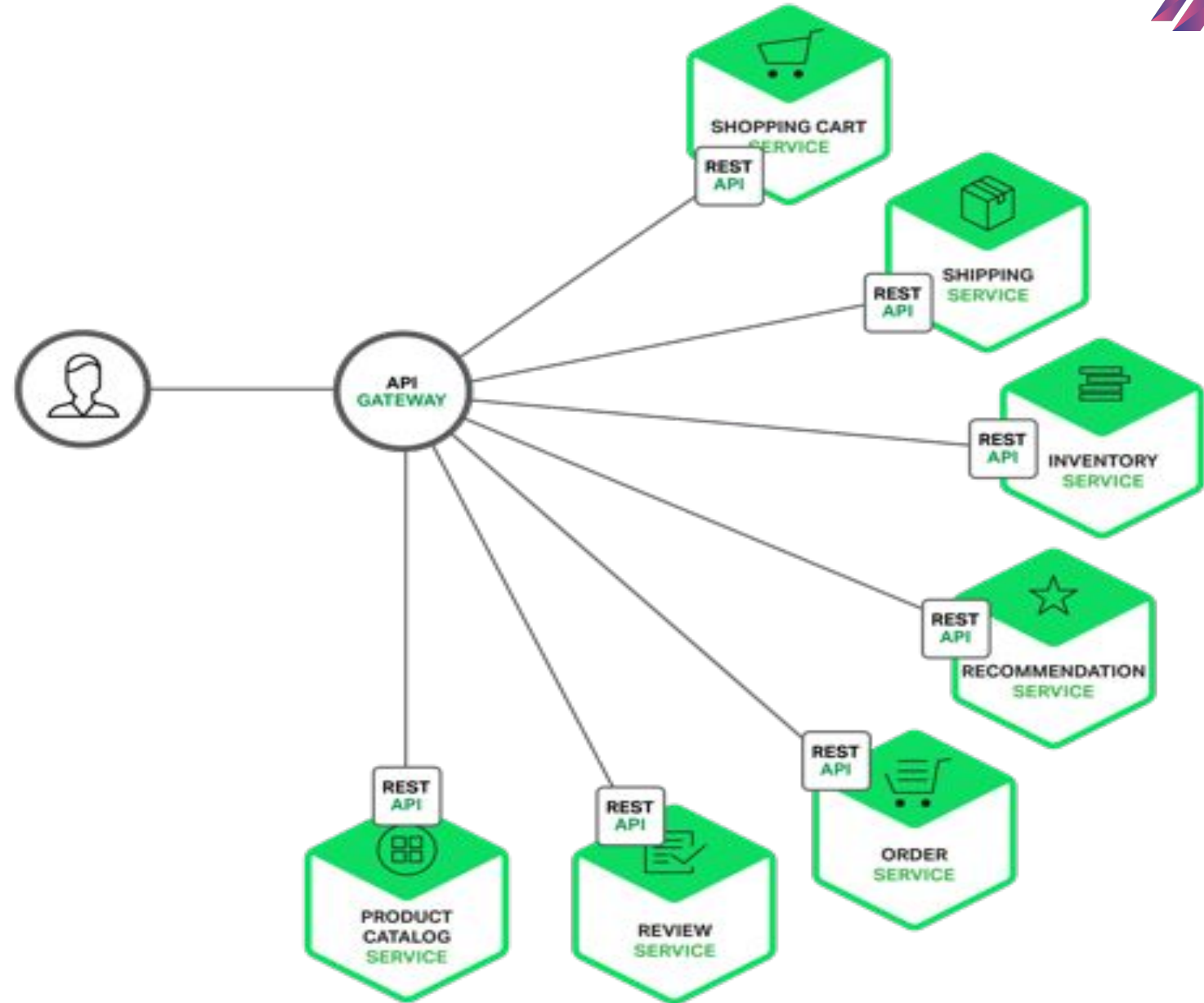


API stands for **Application Program Interface**. Basically, the API defines how device components can **communicate with each other**.

# API Gateway

## What is API Gateway?

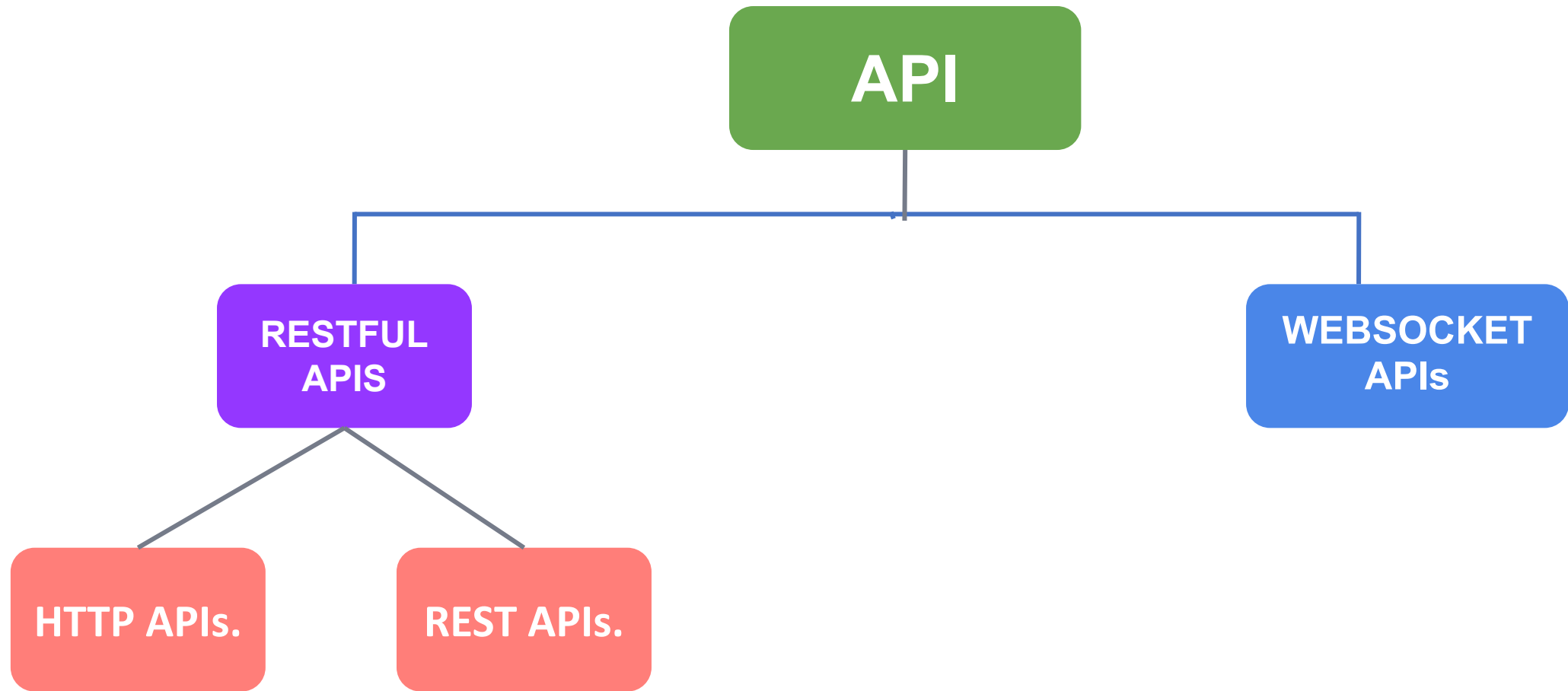
The API Gateway is responsible for routing, design, and interface transfer requests.





# 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



# API Gateway

## What is RESTful ?

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



# RESTful API

DELETE POST PUT GET

# API Gateway

## Pricing



Pay as you go



- With Amazon API Gateway, you only pay when your APIs are in use. There are no minimum fees or upfront commitments.



# Let's get our hands dirty!



# THANKS!

## Any questions?

