

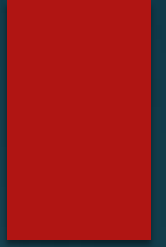


# Python Workshop

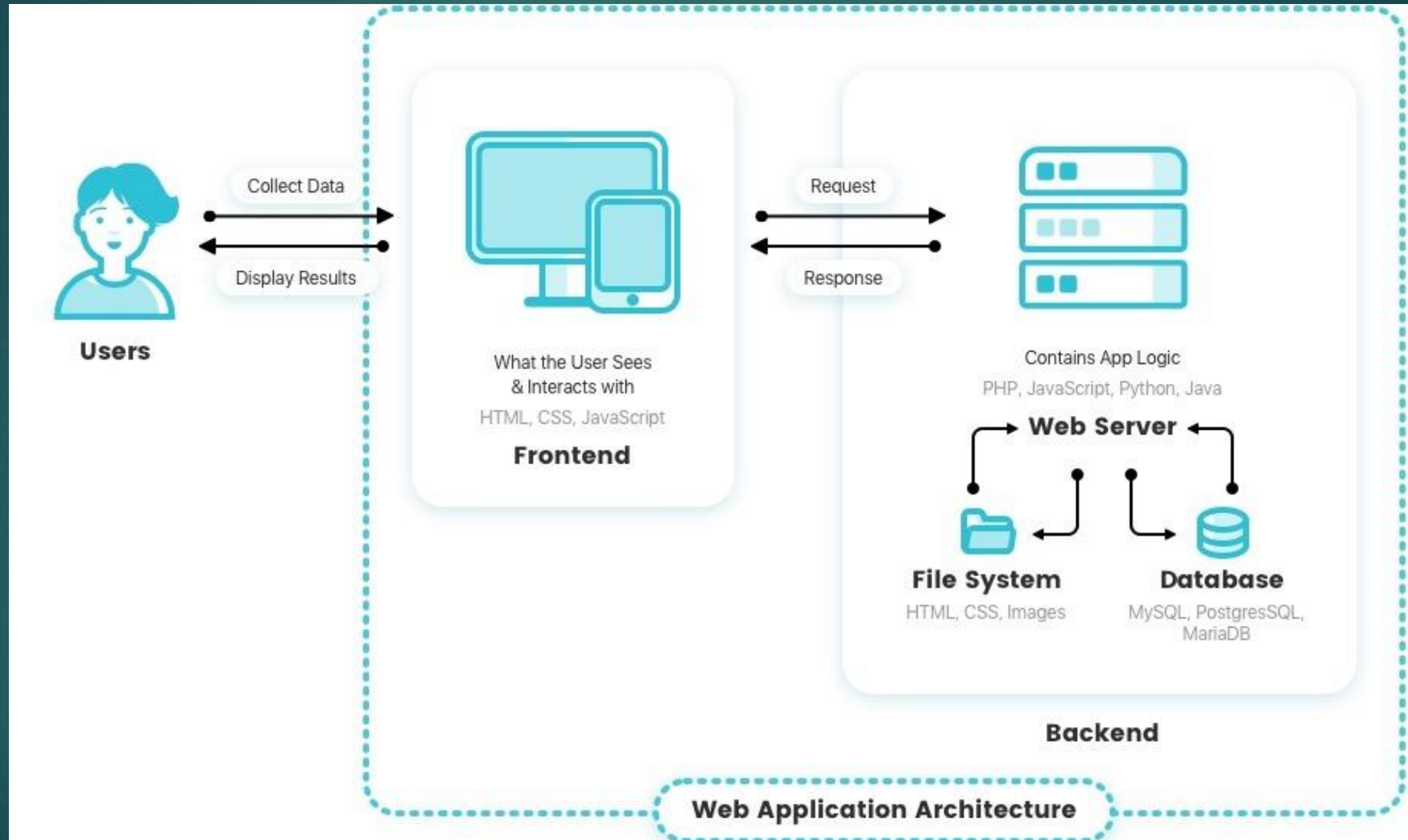
## Day 3

MICRO-SERVICE ARCHITECTURE, REST AND CREATING API'S IN PYTHON

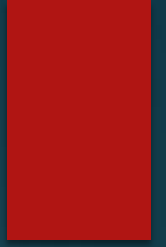
# How are Apps Built?



# How are Apps Built?



# Components of an application?

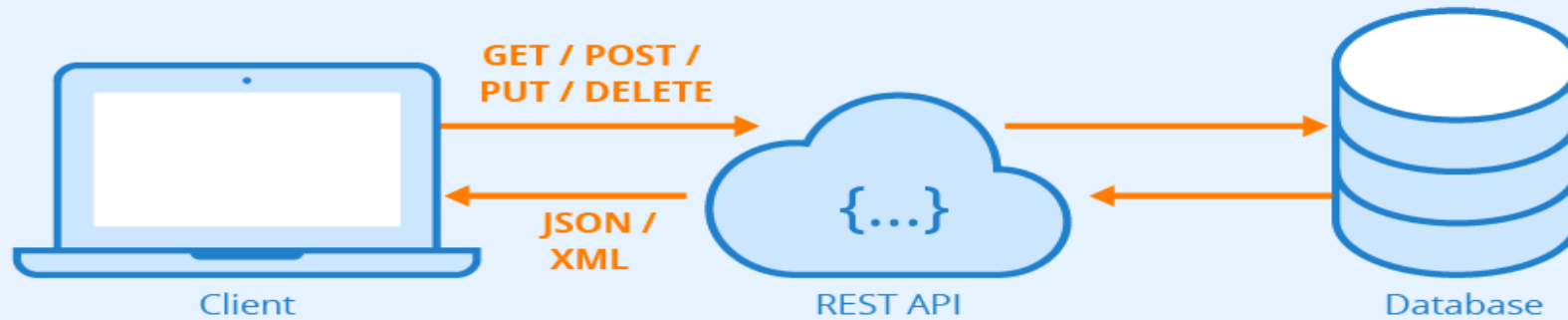


# Components of an application?

To be very precise:

- ▶ Frontend
- ▶ Backend
- ▶ Database

# Where comes an API?



# Publically Available API's

- ▶ Facebook's Developer Group – Graph API
- ▶ Twitter Firehose
- ▶ Google's APIGee

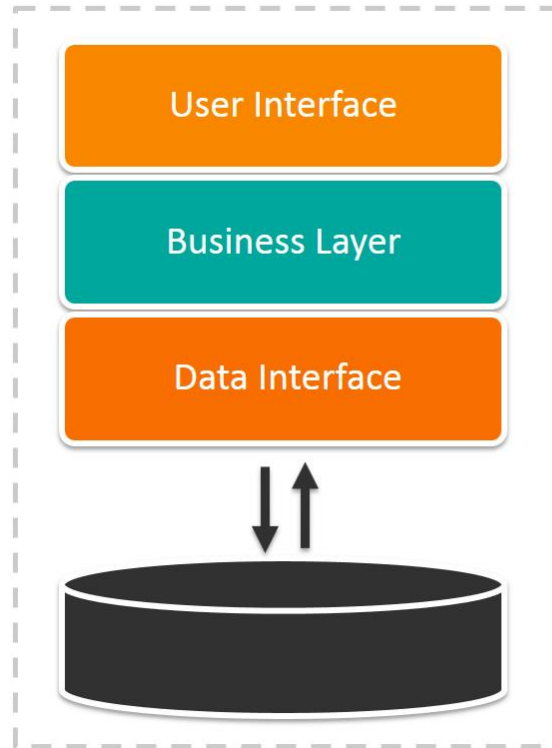
# Types of Application Architecture?

- ▶ Monolithic Architecture
- ▶ Micro-services Architecture

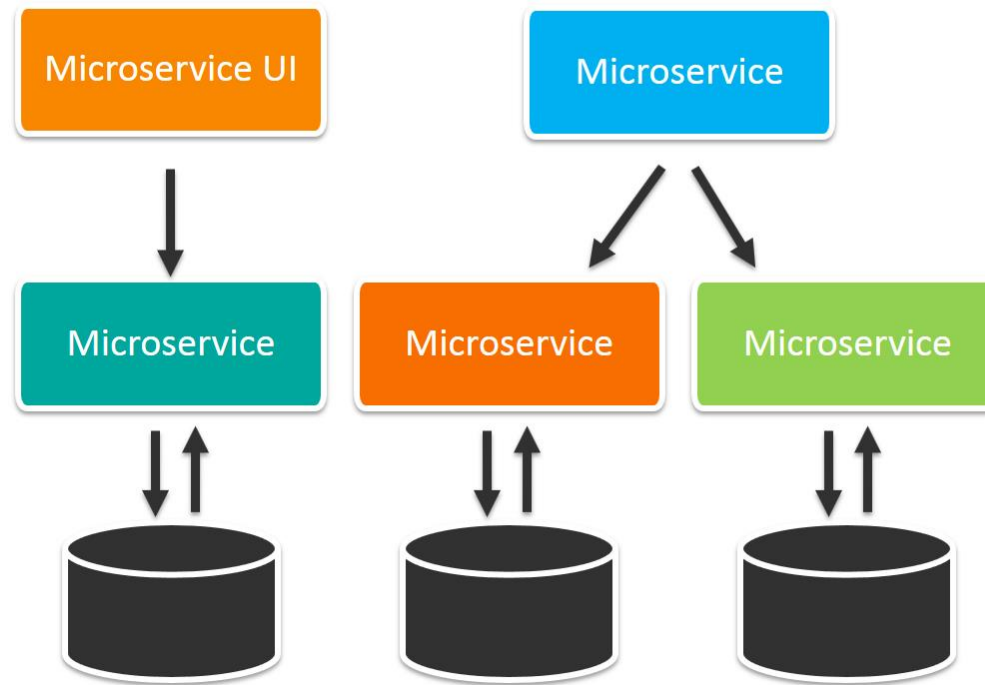


# Difference:

## Monolithic Architecture



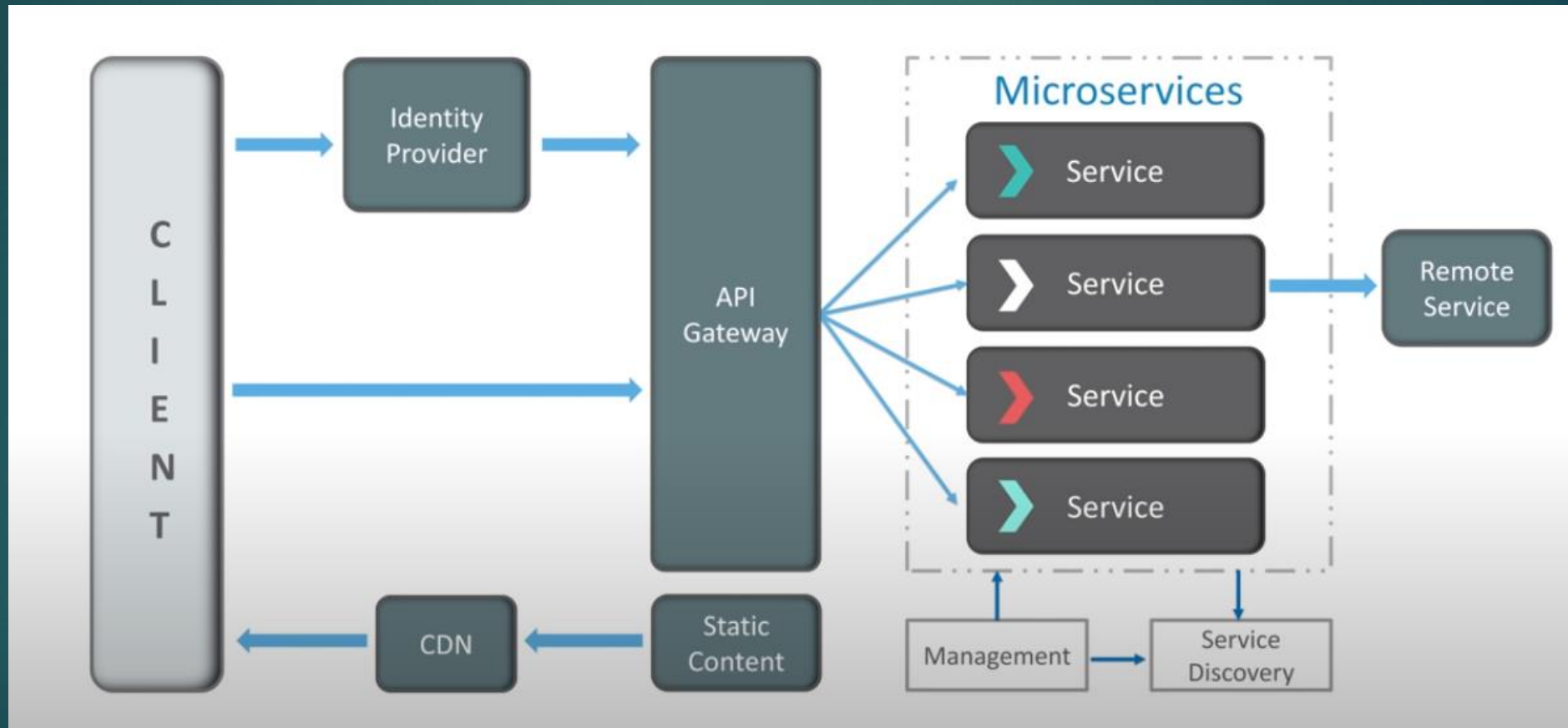
## Microservices Architecture



# Monolithic Architecture Challenge?

- ▶ Large and Complex Applications
- ▶ Slow Development
- ▶ No Continuous Development
- ▶ Unscalable
- ▶ Unreliable
- ▶ Inflexible

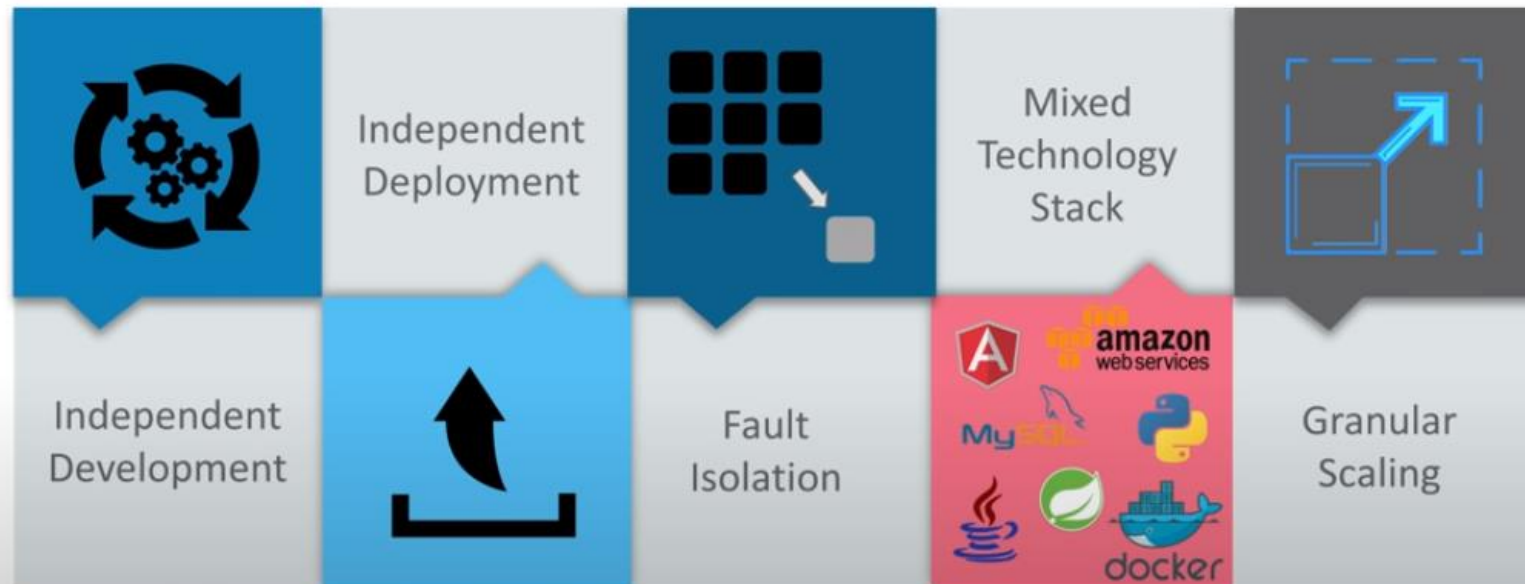
# Microservices Application Architecture:



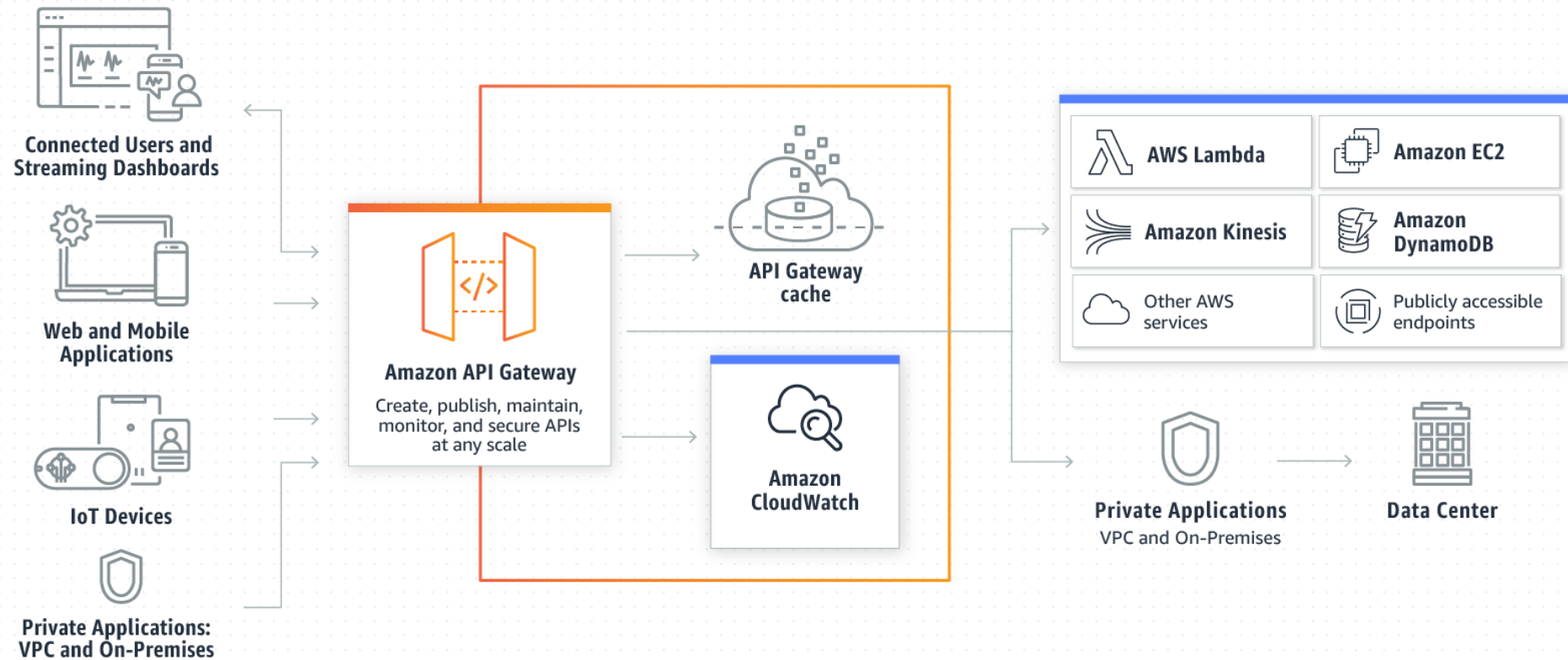
# Features of Microservice Architecture

- ▶ Small Focused
- ▶ Loosely Coupled
- ▶ Language Neutral

# Advantages of Microservices Architecture



# How does Amazon work?



# Companies using Microservices

amazon

NETFLIX



ebay

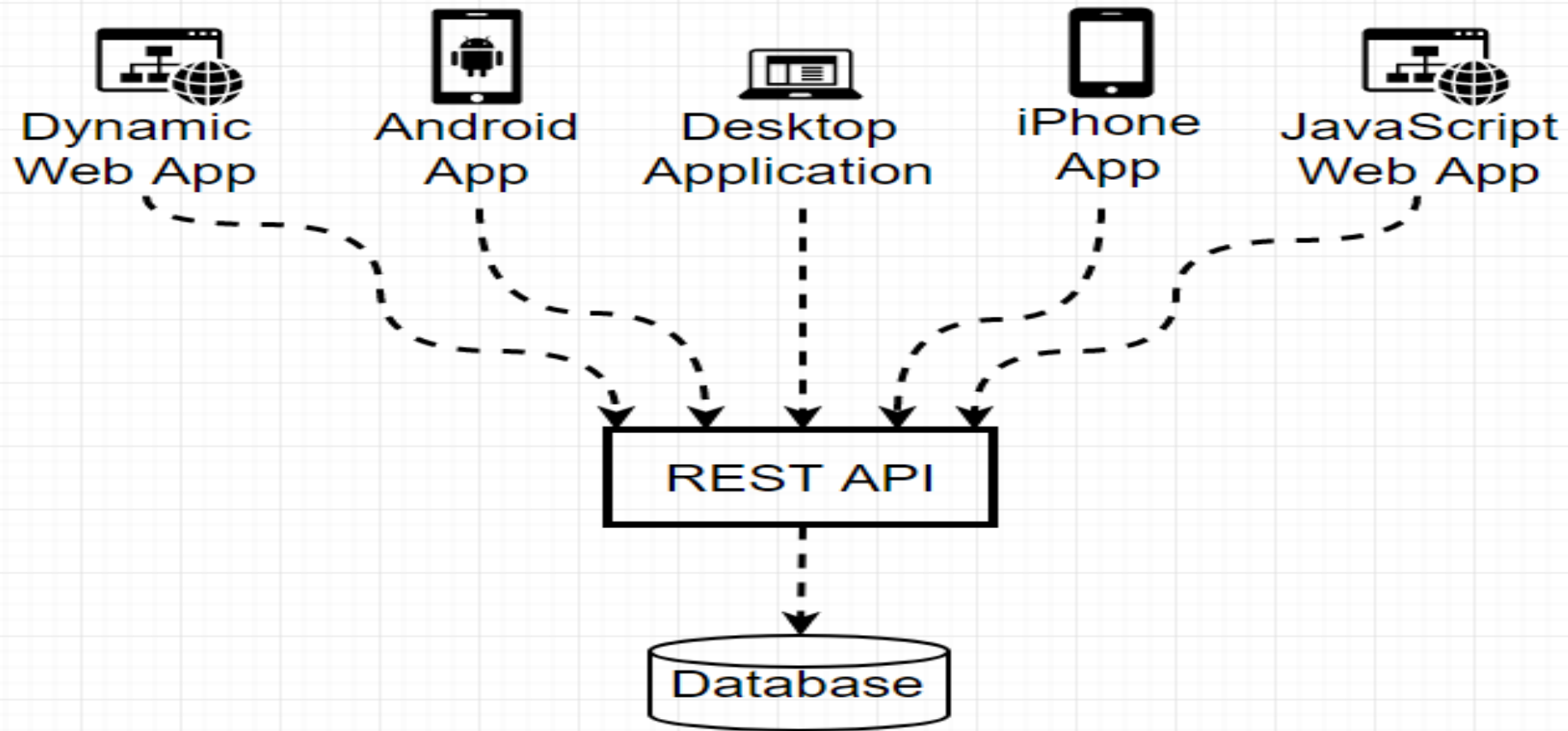
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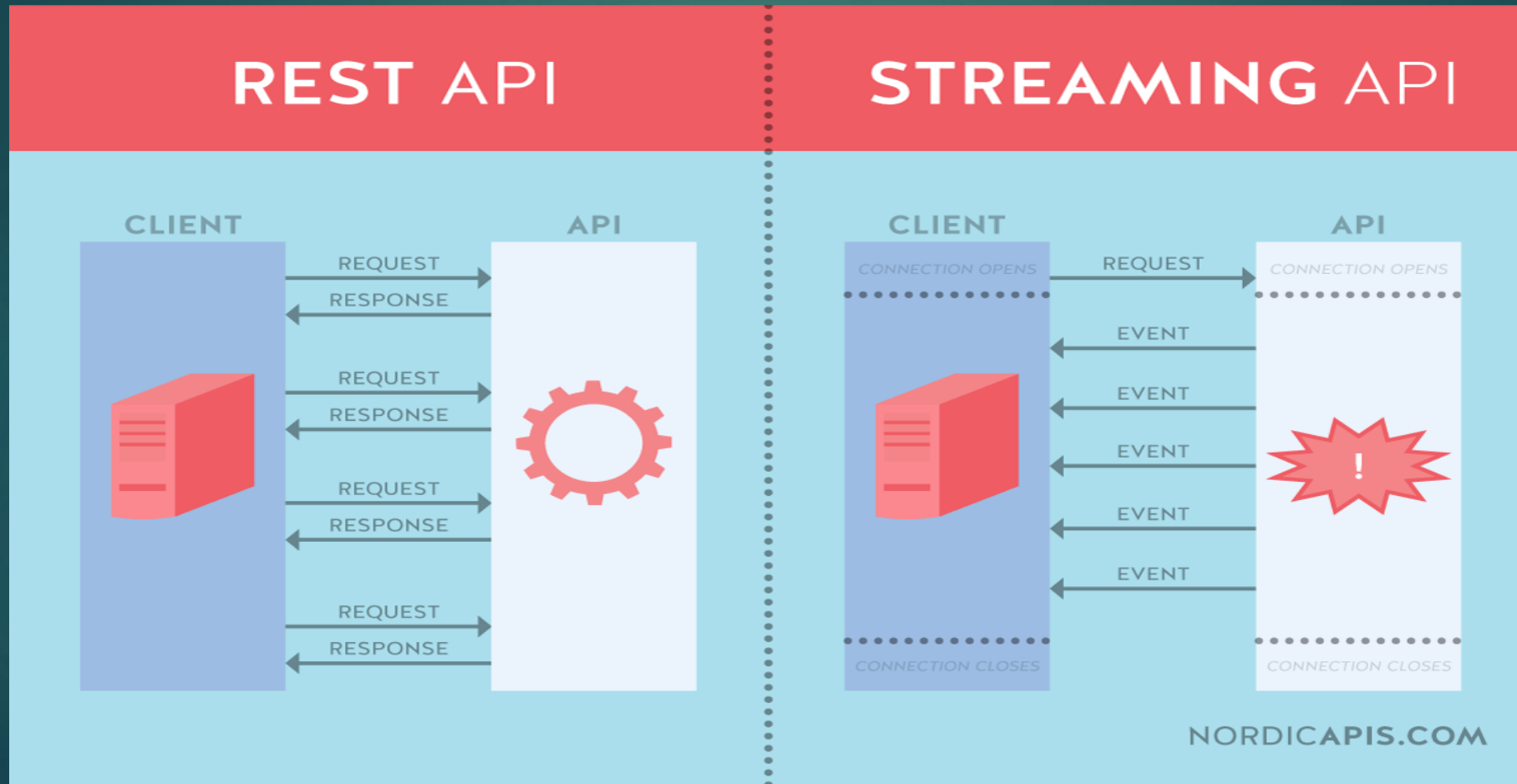


# REST API – The **RE**presentational **S**tate **T**ransfer





# REST vs Streaming API.



# A few things mentioned during discussion:

- ▶ Server Side Processing
- ▶ Client Side Processing
- ▶ Application Programming Interface (API)
- ▶ <https://developer.twitter.com/en/docs/tweets/post-and-engage/overview>
- ▶ <https://cloud.google.com/apigee>
- ▶ <https://developers.facebook.com/apps/>
- ▶ <https://httpstatuses.com>
- ▶ <https://jsoneditoronline.org/>
- ▶ <https://github.com/syedsaadahmed/PSA-Koblenz-Python-Training>
- ▶ <https://restfulapi.net/resource-naming>