

API Gateway and Intelligent Routing



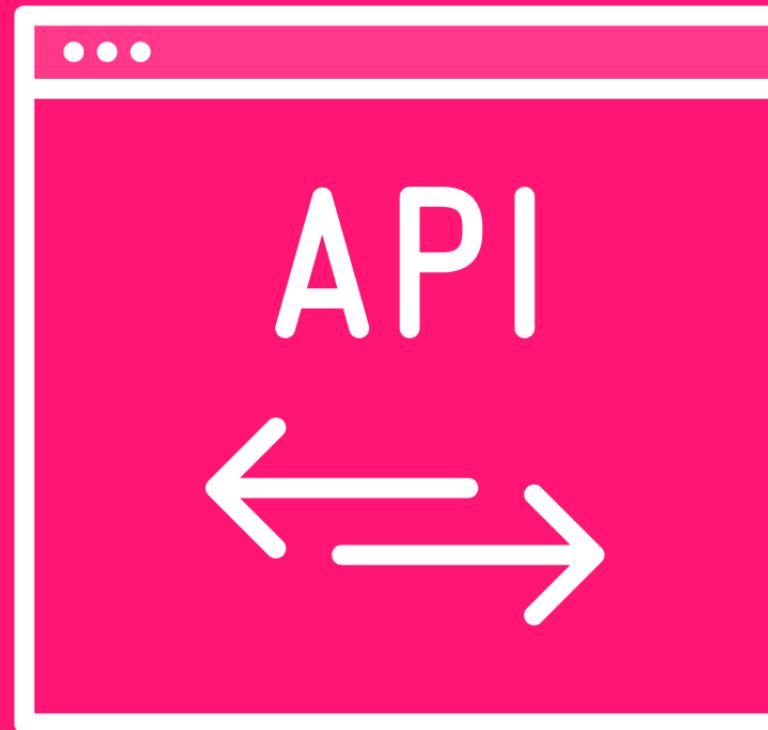
Mohamed Echout

Senior Technical Trainer

@MEchout

Introduction to API Gateways





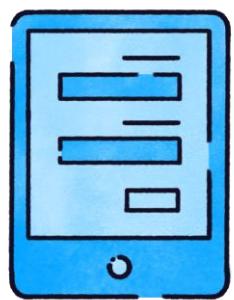
API Gateway

A traffic controller directing each request to the right service.

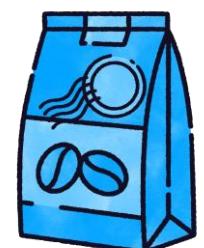
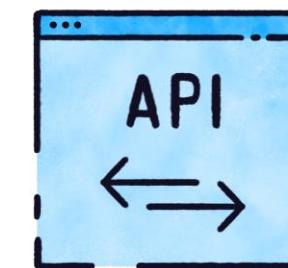


API Gateways Use Case in Microservices

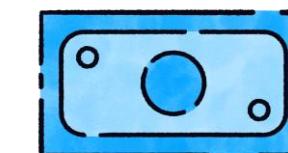
Client



API gateway



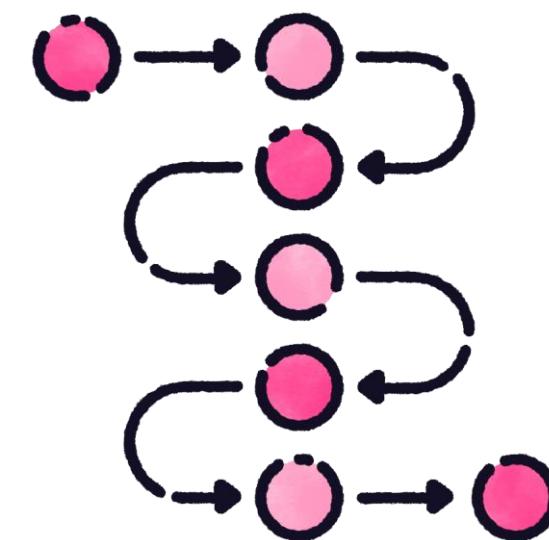
Order service



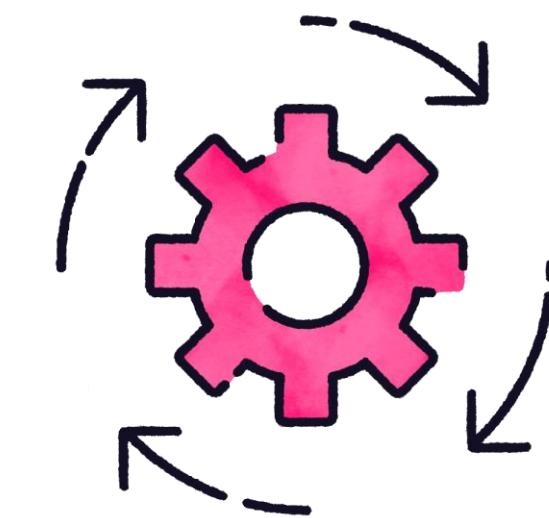
Payment service



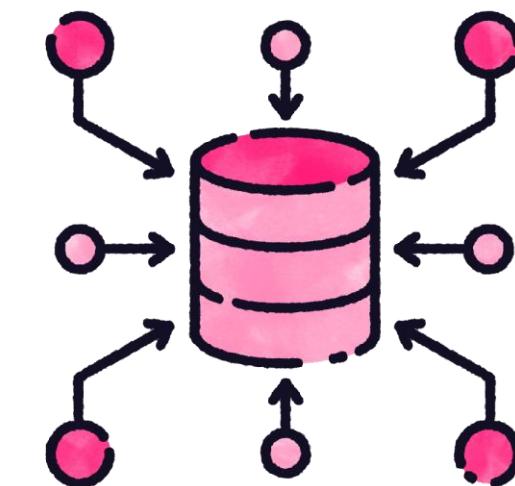
Key Responsibilities of an API Gateway



Routing
Requests to the right
microservice



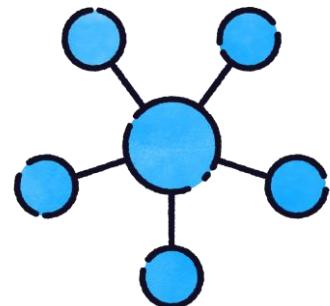
Transforming
Requests and
responses



Aggregating
Results from multiple
services



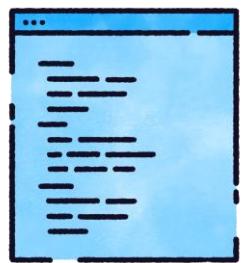
Benefits of Using an API Gateway



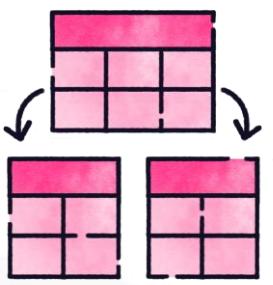
Centralized control of API traffic



Improved security and monitoring



Simplified client-side code



Enables service decoupling



Understanding Spring Cloud Gateway



Built on Spring WebFlux for reactive support

Enables routing, filters, and circuit breakers

Provides out-of-the-box integration for

- Eureka
- Config Server
- Resilience4j



Demo: Configuring Spring Cloud Gateway



Demo: Implementing API Gateway



Course Summary

- Configure a Spring application with dependencies**
- Register and locate microservices with Eureka**
- Centralize configs using Spring Cloud Config**
- Route and secure traffic via Spring Cloud Gateway**



Thank you for your time!

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