#### **API DOCUMENTATION**

#### **POSTMAN**

https://documenter.getpostman.com/view/9220824/2sA3dxEXTW

# **Technical Documentation Summary**

### **Overview**

This microservices-based application handles user registration, authentication, and authorization. It is built using Laravel 11 and Dockerized via Laravel Sail. The architecture includes multiple decoupled services for specific functionalities.

### **API Gateway**

The API Gateway, a Laravel 11 application, acts as a proxy, routing requests to appropriate microservices:

- **Authentication**: Handles user registration and login.
- Authorization: Manages user permissions and roles.
- **Profile**: Manages user profile data.

### **Kafka Integration**

Kafka is used for messaging between microservices. For example, when a user registers, the authentication service sends messages to the authorization and profile services to update user data.

#### **Authentication Microservice**

Endpoints include:

User Registration: /register

• User Login: /login

During the login action, the API Gateway checks with the authentication microservice to verify user existence and correctness. If the credentials are correct, it continues by sending a token back to the client. For profile checks, the gateway verifies authorization with the authorization microservice before proceeding with the request.

### **Authorization Microservice**

This microservice manages user permissions and roles. It ensures that users have the necessary permissions to access specific resources. The API Gateway communicates with this service to validate user authorization before processing requests that require specific permissions.

### **Profile Microservice**

This service manages user profile data. When a user registers, the authentication microservice sends a message via Kafka to the profile service to create and update user profiles. Kafka ensures that all microservices are synchronized and that user data is consistently updated across the system.

## **Security**

- **JWT**: Token-based authentication.
- **Password Hashing**: Secure password storage.

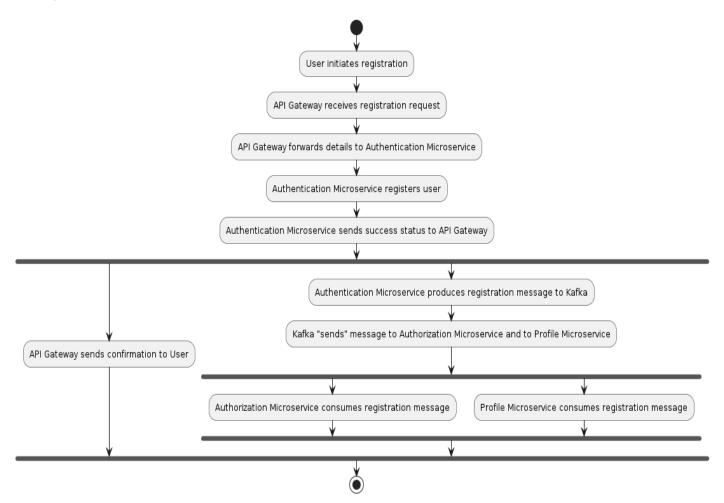
# **Error Handling**

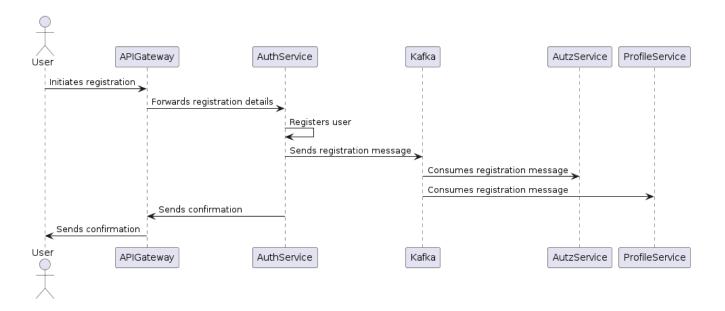
Standardized response codes and error messages ensure consistent API behavior.

For detailed API specifications, you can access the full documentation here.

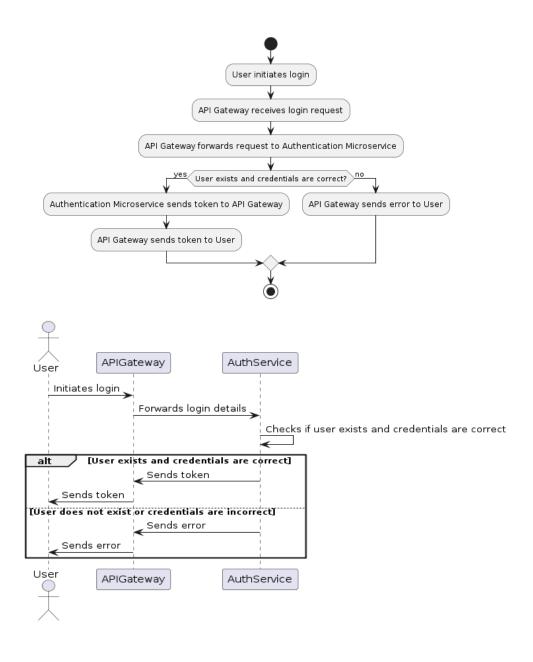
## **UML Diagrams**

### Registration





### Login



# Get Authorized Resource (Profile in our case)

