

# Software Requirements Specification

## Project Overview

**TrainEase** - Train Ticket Booking System is a full-stack application designed to streamline train ticket booking processes. It allows users to register, search for trains, book tickets, and make secure online payments using Razorpay. The system leverages a microservices architecture for scalability and robustness..

## Team Members

- 1) Aviral Singh
- 2) Ayush Srivastava
- 3) Harshit Kumar Goyal

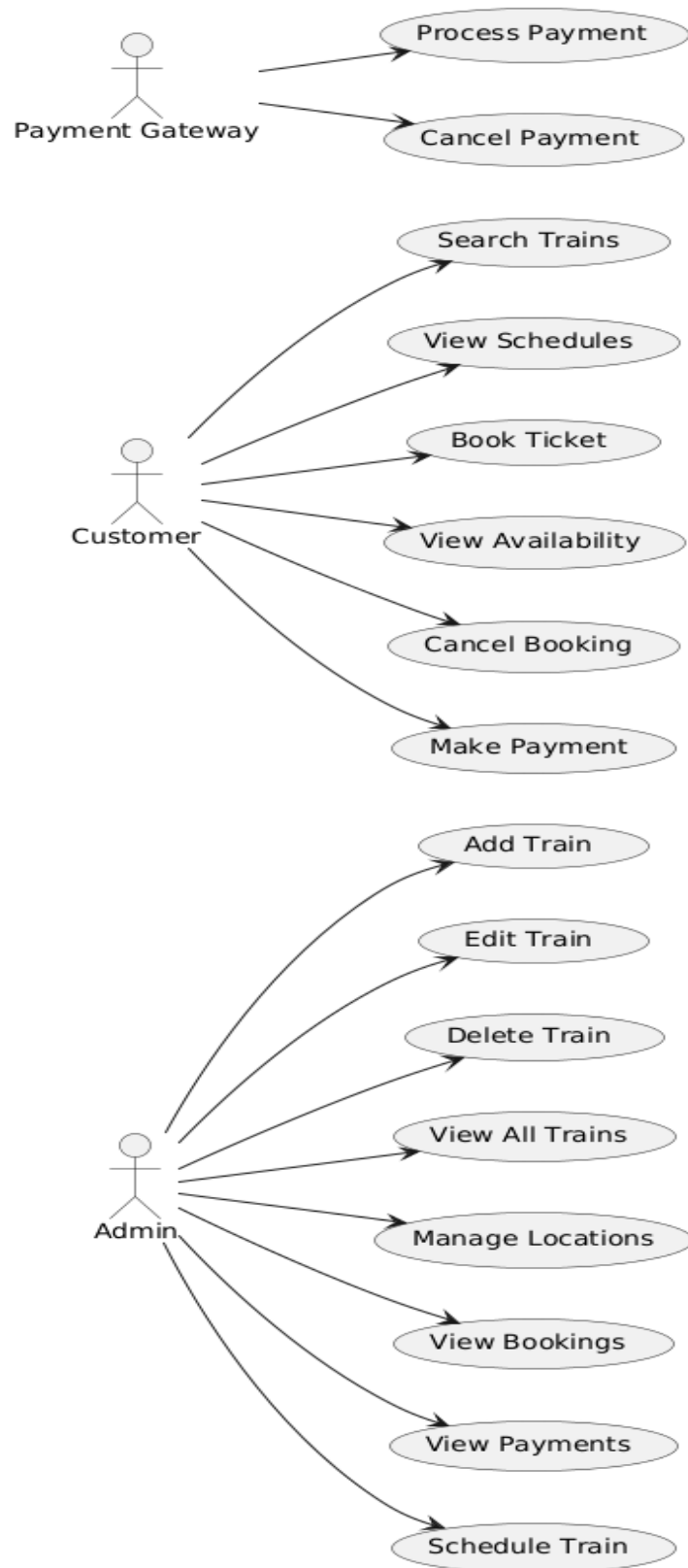
## Technologies Used

1. **Front-End:** ReactJS
2. **Back-End:** Spring Boot
3. **Database:** MySQL
4. **Authentication:** JWT (JSON Web Tokens)
5. **Service Discovery:** Eureka Server
6. **API Gateway:** Spring Cloud Gateway
7. **Logging:** Java Util Logging + Logback
8. **Testing:** JUnit, Mockito
9. **Build Tool:** Maven
10. **Version Control:** Git + Sonar Cube

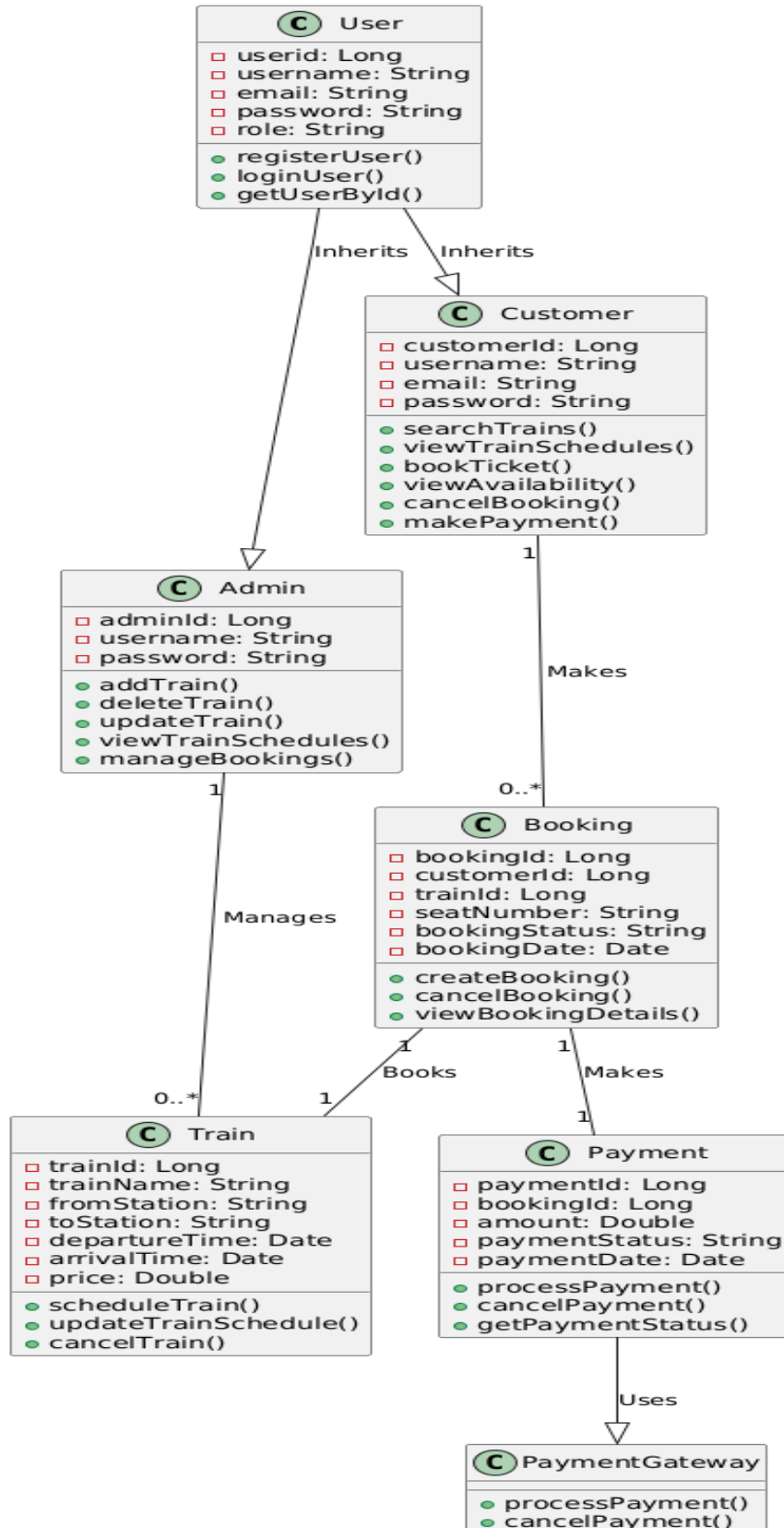
# Microservices Architecture

S No.	Service Name	Summary	Contribution
1	Eureka Discovery Service	Eureka Server for discovering/registering all the services	Harshit Kumar Goyal
2	Gateway API Service	For accessing all the services through Gateway Api port no	Aviral Singh
3	Registration Service	For registering user as a tenant, owner or an admin	Ayush Srivastava
4	Login Service	For user authentication and authorization (with JWT auth filter)	Harshit Kumar Goyal
5	Train Management Service	Manages train schedules, locations, and seat availability.	Aviral Singh, Ayush Srivastava
6	Payment Service	Integrating payment gateway using Stripe/Razorpay Api	Ayush Srivastava
7	Bookings Service	Handles train ticket bookings, cancellations, and status updates.	Harshit Kumar Goyal

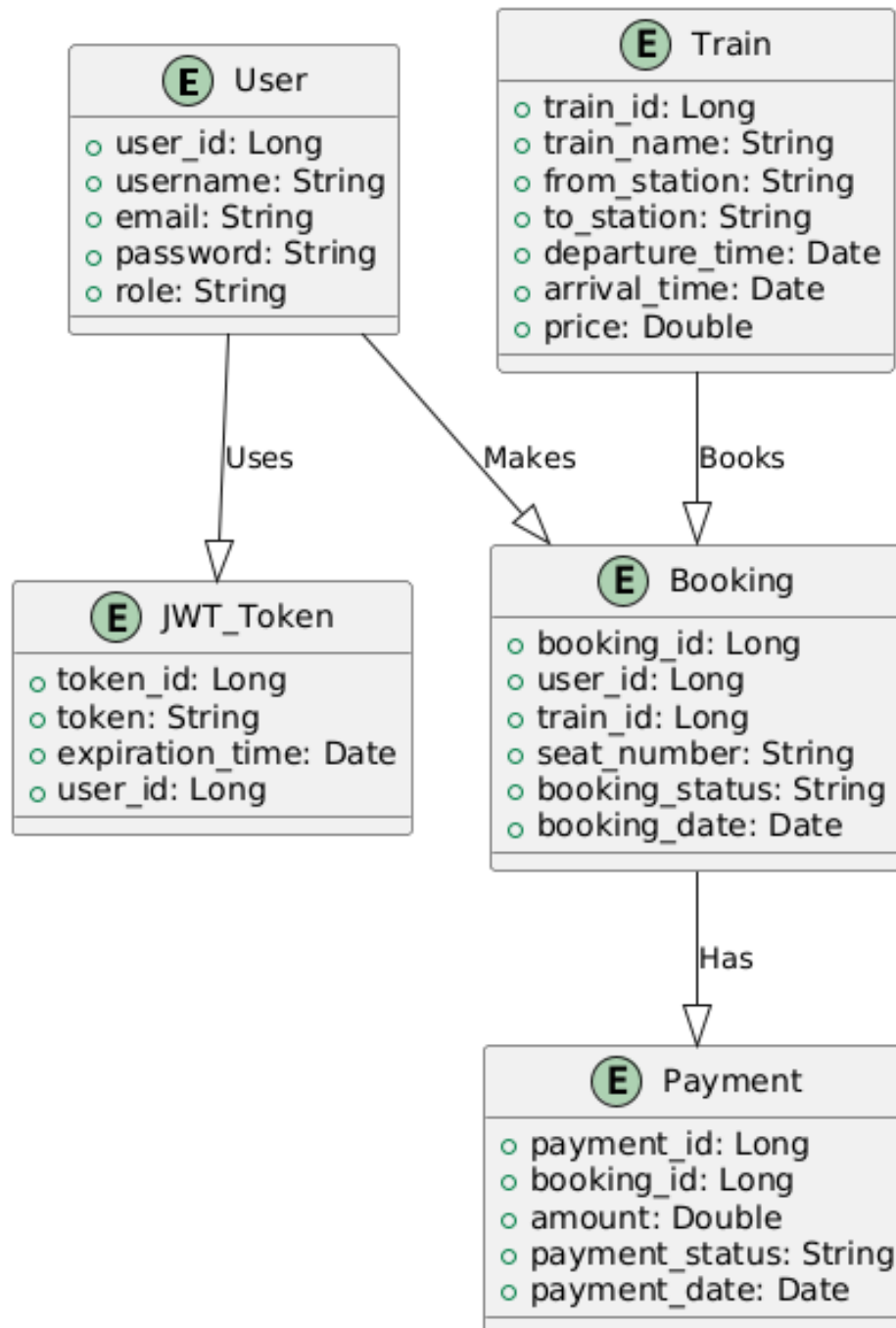
# Use Case Diagram



# Class Diagram



## Entity Relationship Diagram (ERD)



# Architectural Diagram

