# Airline Ticket Booking System Documentation

## Role Schema

Defines roles in the system.

- id: Unique identifier for each role.  
- role: Role name (e.g., Customer, Service Provider)

## User Schema

Stores user details.

- id: Unique identifier for each user.  
- name: Full name of the user.  
- email: Email address.  
- password: Password for account security.  
- phone: Contact number.  
- image: User profile picture.  
- isRole: Role of the user (many-to-one relation with Role schema).  
- bookings: List of bookings associated with the user (one-to-many relation with Booking schema).

## SeatClass Schema

Defines seat class options and pricing.

- id: Unique identifier for the seat class model.  
- economySeats: Number of economy seats available.  
- economySeatPrice: Price per economy seat.  
- economyFoodPrice: Food price for economy class.  
- businessSeats: Number of business seats available.  
- businessSeatPrice: Price per business seat.  
- businessFoodPrice: Food price for business class.  
- firstClassSeats: Number of first-class seats available.  
- firstClassSeatPrice: Price per first-class seat.  
- firstClassFoodPrice: Food price for first class.  
- availableSeats: Total seats available (calculated by class).

## Flight Schema

Stores details for each flight.

- id: Unique identifier for each flight.  
- airline: Name of the airline.  
- flightNumber: Unique flight number.  
- origin: Departure location.  
- destination: Arrival location.  
- departureTime: Flight departure time.  
- arrivalTime: Flight arrival time.  
- image: Image of the flight or airline logo.  
- duration: Flight duration.  
- seatModel: Reference to SeatClass schema (many-to-one relation).  
- luggageCapacity: Luggage capacity allowed per passenger.

## Passengers Schema

Details for each passenger on a booking.

- id: Unique identifier for each passenger.  
- name: Full name of the passenger.  
- age: Age of the passenger.  
- phone: Contact number for the passenger.  
- seatClass: Seat class selected (e.g., Economy, Business, First).

## Booking Schema

Details of each booking.

- id: Unique identifier for each booking.  
- user: Reference to the user who made the booking (many-to-one relation with User schema).  
- flight: Reference to the booked flight (many-to-one relation with Flight schema).  
- passenger: Reference to Passengers schema for passenger details (one-to-many relation).  
- totalPrice: Total cost of the booking.  
- bookingDate: Date of booking.

## Payment Schema

Records payment information for each booking.

- id: Unique identifier for each payment.  
- bookingId: Reference to the associated booking (many-to-one relation with Booking schema).  
- user: Reference to the user making the payment (many-to-one relation with User schema).  
- amount: Total amount paid (from Booking schema).  
- paymentDate: Date of payment.  
- paymentMethod: Mode of payment (e.g., Card, UPI, Net Banking).  
- status: Payment status (e.g., Paid, Pending).

## Customer Page Functionalities

1. View Tickets  
 - View by date, cost, service provider, time slot, or destination.

2. Booking Form  
 - Includes personal information fields, flight details, seat preference, and additional passenger options.

## Service Provider Page Functionalities

1. Manage Airline and Flights  
 - Allows addition of airlines, flights, and management of seat allocation.

2. Discounts  
 - Set discounts for specific groups such as students or senior citizens.

3. Other Features  
 - Manage luggage limits, food add-ons, and ticket classes.