# **Entity Relationship Diagram**

#### 1. User

- o Represents the registered users of the system.
- Each user can make reservation.

#### 2. Train

- Represents the trains in the system with details like schedule, origin destination, and capacity.
- o Each train can have multiple reservations.

#### 3. Reservation

- o Represents a booking made by a user for a specific train.
- Connects User and Train entities.

#### **Table Definitions**

## 1. User Table

- user\_id (primary key)
- o username
- o email
- password
- o role

#### 2. Train Table

- o train\_id (primary key)
- o trainCoach
- o origin
- destination
- departureDate
- o DepartureTime
- AvailabeSeats
- o Price

## 3. Reservation Table

- o reservationId (primary key)
- o user
- o train
- o totalAmount
- o seatNumber
- o confirmationCode
- o createdAT

# Relationships

- 1. One-to-Many between User and Reservation
  - o A user can make multiple reservations.
- 2. One-to-Many between Train and Reservation
  - o A train can have multiple reservations.
- 3. Many-to-One between Reservation and both User and Train.

	User		Reservation		Train	
+		-+ -	+	+ -	+	+
	user_id (PK	ζ)  <  r	eservation_id (	(PK) >	train_id (PK)	
	username		user		trainCoach	
	role		train		origin	
	email		totalAmount		destination	
	password		seatNumber	1	departureDate	
	reservations	s     c	onfirmationCo	de	departureTime	
		0	createdAt		availableSeats	
					price	
					reservations	