

Railway Reservation System

[A]. Table Details :

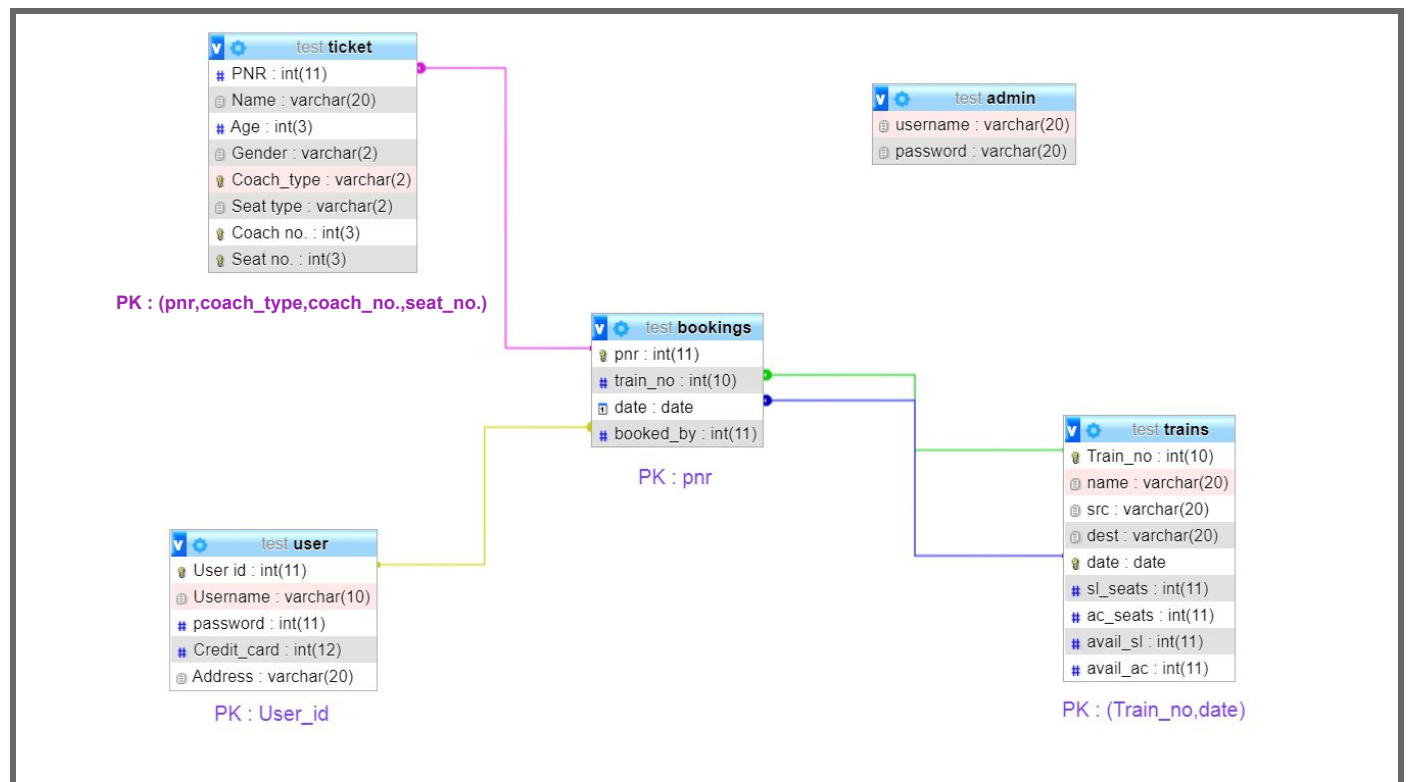


Table Details

[**PK - Primary Key]

Our railway reservation contains 5 tables in the database namely admin table, trains table, bookings table, user table and ticket table.

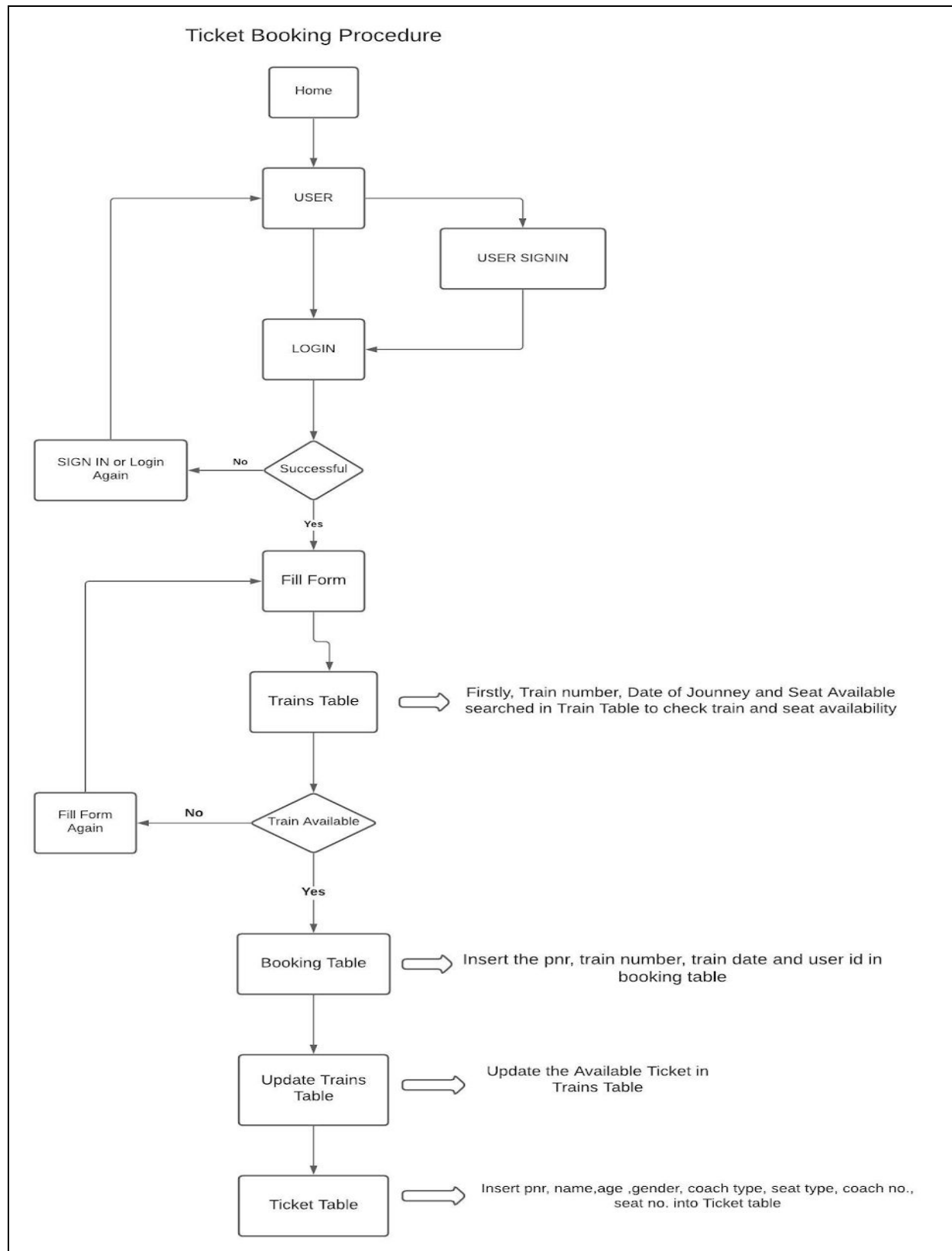
1. **Admin Table** : It contains username and password as an entity. It validates username and password for admin login and to release trains in the system for booking.
2. **Trains Table** : It contains train_no., train name, source, destination, date, total sleeper seats, total ac seats, available ac seats and available sleeper seats as entities. It keeps track of released trains for booking by the admin.
Primary Key : Train_no., Date
3. **User Table** : It contains User_id, username, password, credit card and address as entities. This table used to login as a booking agent in the portal.
Primary Key: User_id

4. **Ticket Table** : It contains the entities which are generated on successful train reservation namely PNR, name, age ,gender, coach type, seat type, coach number and seat number.
Primary Key: Coach type, Coach no. Seat No.
5. **Booking Table** : It contains pnr, train_no., date and booked by as entities of the table. This is a relation connecting trains table, user table and ticket table.
Primary Key: PNR

[B]. Triggers and Stored Procedure Details:

1. When the admin enters into the reservation system, admin fills the forms which needs username and password for login. We have **created a trigger** [as server code] to check whether the username or password is empty or not when form is submitted. These **triggers are runned before insert,update and delete** attributes in the database. If any field is empty then redirect again to the same page to fill the username and password form for login. We have **created the stored procedure** [sql query] to validate the authentication of admin using the admin table.
2. When the admin adds the train in the booking portal. We have **created a trigger** to check if any field is empty or not when a form is submitted. If not error then we created **the stored procedure** to insert form details into the trains table in the database.
3. Created trigger to check if any field is empty or not in user SignIn and user login form when form is submitted. Created stored procedure to insert the user details into the user table when SignIn and to validate the authenticity of the user when login form submitted.
4. After successfully user login, created trigger when reservation form is filled to check the only required fields are filled and other empty.
Stored procedure created are:
 - a. Check whether the train is available or not, have available seats present or not, which matches with the submitted details for users in booking now form.
 - b. [If trains are available] To insert the ticket in the ticket table.
 - c. Update the train table i.e. after successful booking, availability seat of AC or SL coach will reduce.
5. Written procedure for the release date has a constraint of lower bound of 2months after the release date and upper bound of 4 months after the release date. Handled using the javascript code.

[C]. Ticket booking procedure



[D]. Release Date Procedure

Release Date Procedure

