RAILWAY RESERVATION SYSTEM

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PROBLEM STATEMENT

The Railway Reservation System facilitates the customers to enquire about the trains available on the basis of source and destination, for booking and Cancellation of tickets, etc. The purpose of this project is to develop software for railway reservation system with various functional and non- Functional part of design namely,

- Book a ticket,
- Cancel ticket,
- Viewing train information,
- Viewing booking details,
- Updating profiles.

And to design and develop databases maintaining the records of different trains, admin, staffs, customers and customer's booking.

Railway reservation system is the computerized system of booking the ticket of train in advanced. In India, there are number of counters for the booking of the seats and one can easily make reservations and get tickets, but online reservation System has made the process for the booking of tickets very much easier than ever before.

Limitations in manual RAILWAY RESERVATION SYSTEM are:

- It takes more time in processing.
- It takes a lot of effort to process and manage.
- There are large numbers of customers who book daily for different trains so this work became very hectic which increases chances of errors.
- Very difficult to search a particular data.
- There is lack of security for data.
- Poor maintenance of databases in the long run.
- Possibility of errors due to manual processing.

And many more difficulties are there, so to avoid these problems and errors; we need a digital railway reservation system, so this software has to be developed for automating the manual reservation system of Railway.

This system should be standalone in nature. It should be designed to provide following functionalities like :

- **Login**
  Security provisions like the login authenticity should be provided. Each customer, staff and admin should have a username and password for login into system. If admin / customer / staff forgot his/her account's password, then he/she can choose "Forgot password" option to reset account's password.

- **Register**
  The system will allow new customers to register themselves by entering their details and allow them to access our system.

- **Booking of tickets**

  In this, a customer shall be able to book tickets of any train and of any

  class like sleeper class, chair car or AC class. A limitation is imposed

  when the number of tickets for which customer trying to book is greater than available seats in train, then customer is not able to book ticket. If booking of ticket is successful, then it must be updated in the database concurrently. The software takes the date that is entered by the customer as the date of travelling and calculates the fare to be paid by the customer. Admin shall also be able to book tickets online of other customers, and can cancel the tickets booked by him/her as well of different customers. And after successful booking, customer is able to view their booking history and admin shall be able to view all customers' booking histories.

- **Cancellation of tickets**

  If the customer / admin want to cancel the tickets, he/she must enter the train number and PNR number (that is generated after booking). The system checks records from the database if it is matched with the entered details then it cancels the tickets. The system also refunds the paid amount to the customer. The system must update the database for the same.

- **Displays the details of train**

  In this, the system should be able to provide train information like

  train name, train no, source and destination, train type, arrival and departure time, days of running.

- **Profile Management**

  The system will allow the staff and the customers to manage their personal profile's information. The system allows admin to add new customer and staff. Admin shall be able to maintain existing customers and staff profiles. The customers, admin and staff shall be able to update or change their profile password.

- **Maintain Train Details**

  The system will allow the staff and admin to maintain train details like adding a new train, updating and deleting a pre-existing train.

SUMMARY OF REQUIREMENTS

1. A system is to be implemented which can run on the company's LAN and have an online website.
2. The system will be used by administrator, staff and customers.
3. The customers shall be able to register themselves by entering their details.
4. The system will let administrator, staff and customers to access the system after logging in with valid username and password.
5. If administrator / customer / staff forgot his/her account's password, then he/she can choose "Forgot password" option to reset account's password.
6. The customers shall be able to book the tickets online, make payments and cancel the tickets. Administrator shall be able to book tickets of other customers and also cancel the tickets.
7. The customers, administrator and staff shall be able to view the details of trains.
8. The customers, administrator and staff shall be able to update or change their profile password.
9. The customers shall be able to view their booking history and PNR number of ticket and administrator shall be able to view all customers' booking histories.
10. The staff and the customers shall be able to modify their personal profiles.

11. The administrator and staff shall be able to maintain details of the train.
12. The administrator shall be able to add new customer and staff. Admin shall be able to maintain existing customers and staff profiles.
13. The administrator shall be able to delete the record of the particular customer's booking in case of cancellation of tickets and update the database for the same.
14. The system shall be able to provide an easy interface to the user.