**UNITED COLLEGE OF ENGINEERING**

**AND RESEARCH**

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A

Project REPORT

on

**RAILWAY RESERVATION SYSTEM**

(B.TECH CSE 2022-2026)

(SUMMER TRAINING 2024)[FULL STACK WEB DEVELOPMENT USING SPRINGBOOT]

Under the guidance

of

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**INTRODUCTION**

**RAILWAY RESERVATION**

**SYSTEM**

The railway reservation system portal is a web-based application that enables users to book railway tickets online.

The system will allow the users to book available trains based on their source and destination cities, reserve the seats according to their needs.

The system will provide a dashboard for the admin to manage their train related operations.

**PROBLEM STATEMENT** **/OBJECTIVES**

\* A Railway Reservation System is a Software Application Designed to manage and automate the process of booking train tickets anytime and anywhere.

\* This Application will manage large amount of data within the database.

**PROPOSED MODEL**

**FEATURES**

\***ADMIN FEATURES**:

Only the registered admins with validity can add, update , delete route and train from the

Main database.

This will make the application more authentic and safe.

Admin can access the details of different users and reservations.

\***USER FEATURES**

Users can register themselves and log in.

Users can view list of available trains and book a reservation .

Only the users who have logged in can access their reservations, and other details

**DATA FLOW DIAGRAM (DFD)**

* ZERO LEVEL DFD (CLD)

**ADMIN**

**MANAGEMENT**

**USER**

**MANAGEMENT**

**TICKET**

**MANAGEMENT**

**TRAIN**

**MANAGEMENT**

**LOGIN**

**MANAGEMENT**

**BOOKING**

**MANAGEMENT**

**ERD (ENTITY RELATIONSHIP DIAGRAM)**

CHECKS

customer

BOOKS

**TICKET**

TRAIN

SERVICE

**DATABASE DESIGN**

**HARDWARE/SOFTWARE REQUIREMENTS:**

**SOFTWARE REQUIREMENTS HARDWARE REQUIREMENTS**

* **FRONTEND-** HTML,CSS \*GOOD INTERNET CONNECTION
* **BACKEND-** SQL SERVER(MY SQL) \* PROPER SYSTEM(PC)
* **OPERATING SYSTEM-** WINDOWS 10

WITH SPRINGTOOL SUITE

INSTALLED IN IT.

**MODULES**

\*Login Module

\*Admin Module

\*User Module

\*Ticket Module

\*Train Module

\*Booking Module

**MODULE DESCRIPTION**

### 1.USER MODULE: User Management Module

* **User Registration/Login**: Allows new users to create an account and existing users to log in securely.
* **Profile Management**: Users can update personal information, view booking history, and manage preferences.

2.ADMIN MODULE:

 **User Management (for admins)**: Admins can view, modify, or delete user accounts and manage user permissions.(CRUD OPERATION USING SPRINGBOOT)

 **Train and Schedule Management**: Allows admins to update train details, schedules, and routes.

3.TRAIN MODULE

### Train Management Module

* **Train Scheduling**: Administrators can create and modify train schedules, including departure and arrival times.
* **Route Management**: Defines routes for each train, including stops, and can be updated as needed.
* **Train Status Updates**: Provides real-time updates on train statuses, such as delays or cancellations.

4. TICKET MODULE

### Reservation Module

* **Seat Availability Check**: Users can check available seats for specific trains and classes.
* **Booking Tickets**: Facilitates the process of selecting seats and completing ticket purchases.
* **Canceling Tickets**: Allows users to cancel their bookings.

5.BOOKING MODULE

* **Search Functionality**: Users can input travel details (source, destination, date) to find available trains.
* **Display Availability**: Shows real-time seat availability for different classes (e.g., Sleeper, AC) on selected trains.
* **Filters**: Allows users to filter results based on preferences (e.g., price range, travel time).

6.LOGIN MODULE

* **Username/Email and Password Entry**: Users provide their registered username or email along with their password to access their accounts.

\*  **User Sign-Up**: Provides an option for new users to register directly from the login page, redirecting them to the registration module.

**CONCLUSION**

\*The Railway Reservation System project aims to provide a comprehensive, user-friendly platform that enhances the efficiency of train ticketing while ensuring user satisfaction and operational effectiveness.

\* This system not only simplifies the booking process but also contributes to better management of railway resources.

\* The objective of a Railway Reservation System project typically encompasses several key goals aimed at improving the efficiency, usability, and reliability.

**FUTURE SCOPE**

\*This Application will be helpful as it has User Authentication, Ticket Booking, Train and

Seat Availaibility .

\*This will help the users to book tickets easily without any last-minute rush to the stations.

\*This will save time of the people.

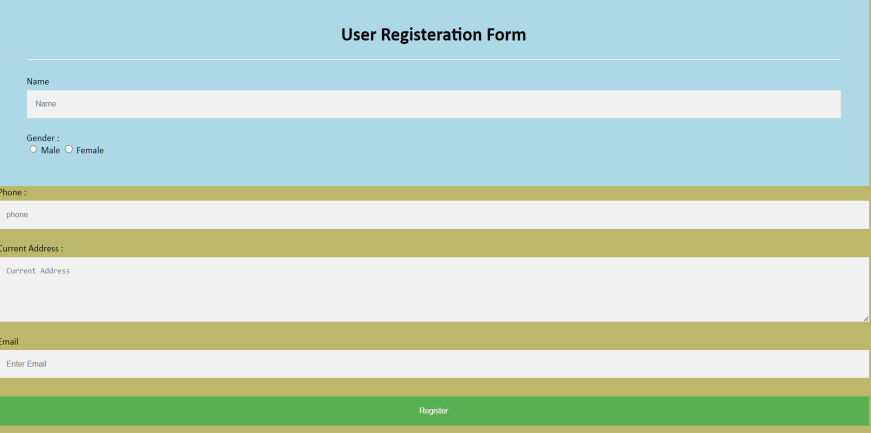
\*The data will be saved and can be accessed anytime and anywhere easily.

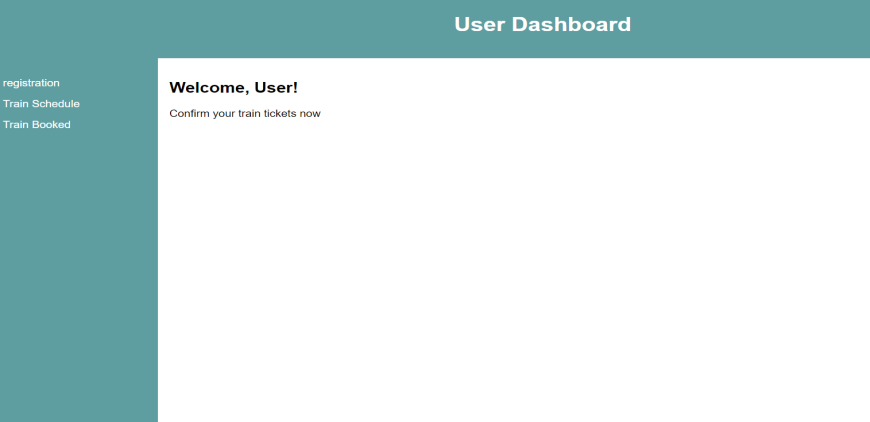
**REFERENCES**

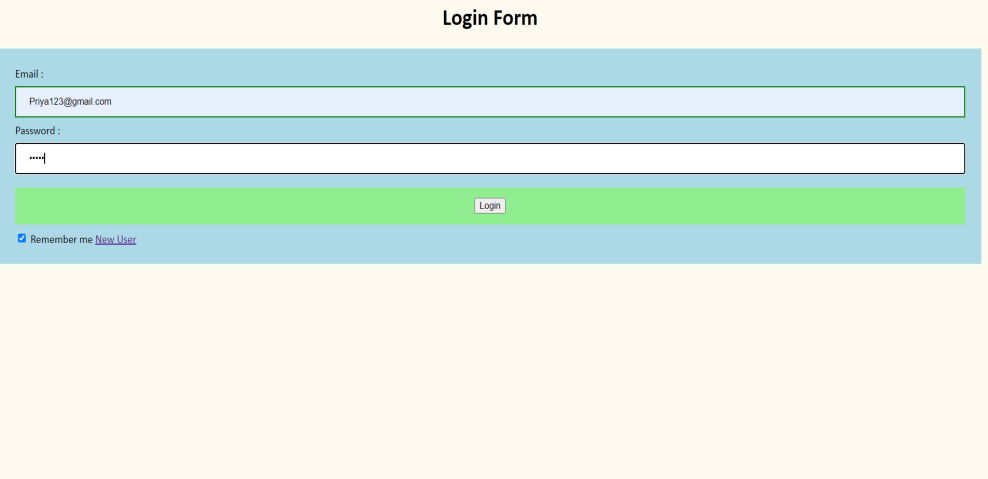
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* www.w3schools.com

**SNAPSHOTS**

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