**ABSTRACT**

**ONLINE TRAIN TICKET BOOKING SYSTEM**

The Online Train Ticket Booking System is a web-based platform designed to simplify and enhance the process of reserving train tickets. It consists of two modules: Admin and Users. Admin oversees system management, updating schedules, prices, and seat inventories, ensuring accurate information. Users can register, search for train routes, check seat availability, and make secure online payments. The system includes an integrated seat map for visualizing and choosing seats, issues electronic tickets, and facilitates cancellations. User feedback is encouraged, providing a comprehensive and efficient experience for both users and railway stakeholders.

**MODULES:**

1.USER MODULE

2.ADMIN MODULE

**USER MODULE**

**1.User Registration and Authentication:**

Passengers can register securely by providing personal information.

User authentication ensures the security of user accounts.

**2.Search and Selection:**

Passengers can search for trains by specifying origin, destination, travel date, and class preferences.

The system provides real-time information on train schedules, seat availability, and fare details.

**3.Booking and Reservation:**

Users can select their preferred train, class, and the number of tickets.

Real-time seat availability helps passengers choose seats or berths.

The system calculates the total fare and facilitates secure online payments.

**4.Ticket Generation:**

After successful payment, electronic tickets are generated with a unique booking reference.

Passengers can download e-tickets or receive them via email or SMS.

**5.Cancellation and Refund:**

Passengers have the option to cancel bookings based on applicable terms and conditions.

The system processes refund requests and updates user accounts accordingly.

**6.User Profile and History:**

Passengers can access and update their profiles, including personal information and travel preferences.

A booking history feature displays past and upcoming journeys.

**ADMIN MODULE**

**1.Admin Dashboard:**

Administrators have access to a dedicated dashboard with powerful tools for system management.

Admins can add, update, or remove train schedules, ensuring accurate and up-to-date information for users.

**2.User Management:**

Admins can manage user accounts, including user verification, suspension, or deletion.

User issues and inquiries are addressed promptly.

**3.Ticket and Booking Management:**

Admins can monitor and manage ticket bookings, resolving any discrepancies or issues.

They have the ability to override system restrictions in exceptional cases.

**4.Security and Data Protection:**

The admin module oversees system security, implementing encryption and ensuring user data protection.

Regular security audits and updates are conducted to maintain a secure environment.

**MAIN PROJECT CONCEPTS**

* Advanced admin dashboard including more user friendly atmosphere.
* Chatbot and virtual assistant
* Provides digital coins which can be used for discounts
* Intelligent fare pricing

**SOFTWARE SPECIFICATIONS:**

Frond End: HTML,CSS,JAVASCRIPT

Back End: Python Django

Server: SQLlite