**Railway Reservation Using Android App**

**ABSTRACT:**

Due to drastic changes in the technology the reservations are done using Mobile phone. In this project we develop railway reservation system using Android phone. The online reservation system is basically derived from the GDS (global distribution system) also known as CRS (computer reservation system). The online reservation System has its database centrally located which is accessed through an Application Programming Interface (API).With the invent of online reservation system the traveler and the railway got the freedom to book a seat anywhere at anytime at their convenience. The traveler can book a ticket at a click or touch in mobile by saving the time and money for the travelling. It has also become a hassle free transaction for both the railway and the traveler. The online reservation system involves three main actors the database, online operator and a database scheduler. The database scheduler updates the database, the online operator accepts and confirms the booking and updates the database.

**EXISTING SYSTEM:**

The existing railway reservation system has many shortcoming associated with it. In the existing system railway used to set train reservation levels higher than seating capacity to compensate for passenger cancellation and no-shows accounting to overbooking in the agent frequently to do so thus wasting time and money for all. In the existing system integration of different railways on single platforms was not met. With the advent of the online reservation system these flaws can be overcome.

**DISADVANTAGES OF EXISTING SYSTEM:**

* High expensive
* Time taken procedures and methods
* No portability
* No user friendly

**PROPOSED SYSTEM:**

The new online reservation system maintains the database centrally giving the clients the information required from anywhere in the world whenever required. This system requires the use of API through which it interacts the data from a central database monitors all the data exchanges that are made at the client side to it and updates it automatically. Through online reservation system customer is able to book & purchase a ticket thus saving time money for the customer and an railway/agent. As the information is stored centrally the customer never loses his ticket as in the existing system.

**ADVANTAGES OF THE PROPOSED SYSTEM:**

* Significantly lower expenses.
* Time savings by not having to ship paper or to reenter data into a computer.
* Richer, more complete and more accurate data.
* Remote deployment to travelers; and in many cases
* The ability to use devices that you already own

**MODULES:**

* Administrator Module
* Passenger Login Module
* Passenger Registration Module
* Train Search Module
* Ticket Reservation Module
* Train Tracking Module

**MODULE DESCRIPTION:**

**Administrator Login**

The whole system is controlled by an administrator, administrator login into system by giving his authentication details such as username and password. After login into the system, he can see the trains currently available to the passengers. The train details are Train name, departure, destination, seat availability, and running days. And administrator can also add a new train into the databases.

**Passenger Login**

In this module, the user can login into the system by providing their credential, if a user is new to this application, and don’t have their credential details such as username and password; he can register as a new member in this system by registering.

**Passenger Registration**

If any user doesn’t have username and password to login into the system, then he can choose to register as a new member by choosing register option. He prompt to give his personal and contact information such as name, address, phone number, email id, and he can choose his own username and password. If registration is success then the user can login into the system, by username and password chosen by him/her

**Train Search**

After successfully login into system, passenger can search the available trains by their requirements. The requirements may departure, destination, journey date. The list of available trains is shown to the user. Then user may select any train and make ticket reservation. If no train is available, then user may change the journey date, departure, or destination.

**Ticket Reservation Module**

If the journey date, destination and departure is match for a train then the passenger can select the particular train, after selecting the particular train, user will get the trains details and seat availability in each class, the classes will be AC, Sleeper and seater class. User can select any class, and input the number of seats to reserve, if the user selected seats not available then he prompt to give only select seat less than or equal to available seats. After selecting no. of seats, user can make payment, when he ready to pay, the details of reservation will be shown to the user such as class, number of seats, total amount. Then the user may confirm or cancel the payment. If he confirms the payment then only the ticket will be reserved for that passenger, otherwise it will be open to all.

**Train Tracking**

The passenger has the options to track the Trains in real time. Trains physical location will show in the map with the place currently train is travelling. Passenger can select particular train, and then train details such as previous station, next static, train started date and expected time to reach the next station are shown to the user. The route covered by the train is shown as a yellow line, and route to be covered will show as the dotted yellow line. The trains currently running on time will be shown in blue color, and trains currently running late will be shown in red color.

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium IV 2.4 GHz.
* Hard Disk : 40 GB.
* Floppy Drive : 1.44 Mb.
* Monitor : 15 VGA Colour.
* Mouse : Logitech.
* Ram : 512 Mb.

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows XP/7.
* Coding Language : Java 1.6
* Tool Kit : Android
* IDE : Eclipse