

## **Online Railway Management System**

**Motivation :** Without an online management system, tickets were sold at railway ticket counters exclusively. Reservation counters would exist near the stations, and to book tickets in advance one would have to go to the station and book tickets in person. Also because the tickets were available at counters, people at these ticket windows could be involved in corruption, leading to ticket hoarding and selling of tickets in black at a much inflated rate. Even for checking ticket availability one would have to go through strenuous phone calls or the enquiry counter. This becomes unnecessary when an online system exists, where the user can book tickets in the comfort of their homes. Further the black marketing of tickets will be reduced because tickets would be directly available from the railways, bypassing the corruption at reservation window. A centralized system can exist where data of all the trains of the country are available.

This online system would require managing following data:

**Trains Information :** Manage information of every train running in India. Information required to identify trains would be train name, train number, source station, destination station, all the stations through which the train passes, arrival + departure time, station name and their respective codes, on which day of week there are available and on which days they are not, whether Wi-Fi is available or not, whether food is provided or not.

**Facilities to be provided to the end user :** User will have the option to search for train information (mentioned in the previous heading) based on the train number or train name. Also a functionality should be provided to the user so that they can search for last one week history of any train. History includes expected arrival time, expected departure time, actual arrival time, actual departure time for all the stations via which train passes.

**Train Availability :** Whether train is available from station A to station B on date D. If available display the details of each train available. User will provide the source station, destination station, the date on which he/she wants to travel. User will come to know about all the trains which run on the given date from the source to the destination station plus how many seats are available in sleeper class, First Class AC (if available), Second

Class AC (if available), Third Class AC (if available) and train fare.

Functionality will be provided to **book tickets** too. For that user must have an account. Sign up option will be provided to create a new account.

**Sign Up :** In order to book tickets user must have an account. To register for a new account user will have to fill a form. Fields consists of user name, password, Date of Birth, gender, mobile number and email-id.

Two more functionalities will be provided to the user – reservation and cancellation. Once the user has successfully setup his/her account then he/she can book tickets, can see the past reservation, cancel the ticket and update his/her personal information.

**Ticket Booking :** User can book the ticket (if available) by filling a simple form. First by using the train availability feature (discussed above) we will find whether train is available or not. If train is available then user will have to provide information such as passenger name, age, gender, phone number, email id. After filling the form user will have to pay the money. Once the reservation charge is successfully paid e-ticket will be sent to the mobile number as well as to the e mail provided.

**Ticket Cancellation :** Sometime it is required to cancel the ticket booked in the past. So it is obvious to have a functionality to cancel the ticket booked in the past.

**Summary :** First step for the user is to create an account. Once the account will be created then they can access any train information, can check whether train is available or not from given source to destination, if available they can book tickets, can see all the past booking information, and can even cancel the ticket.

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