NEIL GOGTE INSTITUTE OF TECHNOLOGY

(A Unit of Keshav Memorial Technical Education (KMTES)
(Approved by AICTE, New Delhi & Affiliated to Osmania University, Hyderabad).

A

MINI PROJECT REPORT

on

Indian Railway Reservation System

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

Submitted by

Gattu Abhilash	2453-18-733-081
Aila Varun	2453-18-733-063
Thanuku Premsai	2453-18-733-111
Gunda Sai Murali	2453-18-733-311

Under the Guidance of

Mr. K. Srinivas

DEPARTMENT OF COMPUTER SCIENCE AND ENGINERING

Kachawanisingaram Village, Hyderabad, Telangana 500058.

March 2021

NEIL GOGTE INSTITUTE OF TECHNOLOGY

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CERTIFICATE

This is to certify that the project report titled "**Indian Railway Reservation System"** is being submitted by **Gattu Abhilash (2453-18-733-081**), **Aila Varun (2453-18-733-063**), **Thanuku Premsai (2453-18-0733-111), Gunda Sai Murali (2453-18-733-311),** of IIIrd year B.E.V Semester **Computer Science and Engineering** is a record of bonafide work carried out by them. The results embodied in this report have not been submitted to any other University for the award of any degree.

Internal Guide   HOD

External Examiner

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DECLARATION

We hereby declare that the Mini Project Report entitled, "**Indian Railway Reservation System"** submitted for the B.E. degree is entirely our work, and all ideas and references have been duly acknowledged. It does not contain any work for the award of any other degree.

Date: - 03 - 2021

Gattu Abhilash   2453-28-733-081

Aila Varun   2435-18-733-063

Thanuku Premsai   2453-18-733-111

Gunda Sai Murali   2453-18-733-311

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Abstract

The Indian Railway Reservation System facilitates the passengers to enquire about the trains available on the basis of source and destination, Booking and Cancellation of the ticket and enquire about the status of the booked tickets, and availability of seats in train etc. Our project mainly simulates the role of a Railway ticket booking officer, in a computerized way and we also provided a chatbot, through which we can also know about the train details, by giving source and destination details and also provides a link which will contain more details about the train. The aim of this project is to design and develop a database maintain the records of different trains, train status, and passengers. The reservation option enables a person to reserve for a ticket at their home itself. All he/ she has to do is to just login and enter the required details. After this the reservation database is updated with the person details, train name and also the source and destination place. The cancellation option enables the passenger to cancel the tickets that has been already booked by him/her. The availability option prompts the person to enter train number, train name and date of travel. After this the availability database is accessed and available positions are produced.

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1. INTRODUCTION

1.1 Motivation

This Project is Dedicated to:
1. Model the existing Railway/(Other) Reservation System
2. Provide a Comprehensive set of features to enhance their operational limits
3. Evaluate their performance in different Scenarios
4. Suggest modifications for greater efficiency

1.2 Problem Statement

This Project is about creating the database about Railway Reservation System.

The Railway Reservation System facilitates the passenger to enquire about the trains available on the basis of source and destination, booking and cancellation of tickets, enquire about status of the booked ticket, etc. The aim of case study is to design and develop a database maintaining the records of different trains, train status, and passengers. The record of train includes its number, name, source, destination, and days on which it is available, whereas record of train status includes dates for which tickets can be booked, total number of seats available, and number of seats already booked.

1.3 Solution

The railway network is a very vast system to be handled manually and its computerization will prove to be of great help to both the employees and the passengers. The customer and the admin are the two parties which are allowed to have access to the database of the system and have different view level schemas to the database information.

The customers are privileged with the following services:

1. Register as a customer by providing certain personal details.

2. Make fresh reservations and book a seat.

3. See trains between a pair of stations, check seat availability in trains and get the fare details.

Administrator is privileged with the following services:

1. Login as the master user using a master password.

2. Add train, station, and route.

3. See user and passenger details and can even delete their profiles after which the user will not be able to login to the system as a user.

1.4 Objective

The Our project introduces railway reservation system with an objective to make the reservation system more efficient, easier and fast. This project explores how computer technology can be used to solve the problem of user.

The main objectives provided by this software are as follows:

1. We can enquire about availability of trains.

2. They can reserve their seats.

3. We can modify the information related to

    a. Trains

      1. Timetable

      2. Train Name

      3. Train Number

    b. Ticket Fare

This project is dedicated to model existing railway reservation systems the aim at development of Railway Reservation System that facilitates the railway customer to manage their reservations and the railway administrator to modify the backend database in a user-friendly manner.

1.5 Limitations

The user should be able to operate the browser provided with a proper internet connection.

Training data should be modified or appended with up-to-date data for better accuracy in the model output.

Technical difficulties, programming errors or server malfunctions.

2. LITERATURE SURVEY

2.1 Surveys

Indian Railway will continue to play a Crucial role in the economy of the country in the many years to come. The need of the hour is to have an exclusive advanced reservation system, PNR status checking system, location identification through effective communication system, fire sensing system and catering services in place that would Fulfil the requirements of the whole spectrum of passengers. In present system, there is no passenger intimation in a train that is persons who are travelling during night time are unaware of the exact place now they are in and no prior intimation of when they reach their respective stations.

2.2 Existing System

Under existing system passengers were only provided with list of trains between two stations and train number is only the available information by they can take an action. Under existing system passengers were not able to get information on their arrival and department and route by which particular train will travel. Passengers were only able to select the seat number and not provided which seat type they want to select and this sometimes not creates a familiar environment during their journey. During making payment final validation and authorization was one by system to identify the particular passengers to make deduction for their fare charges to make final reservation.

2.3 Disadvantages of the existing system

1. Data redundancy:
   It means that same data fields appear in many different files and often in different formats. In manual system, it poses quite a big problem because the data has to be maintained in large volumes but in our system, this problem can be overcome by providing the condition that if the data entered is duplicate, it will not be entered, otherwise, updating will take place.
2. Difficulty in accessing the data:
   In manual system, searching information is time consuming but in our system, any information can be accessed by providing the primary key.
3. Unsatisfactory security measures :
   In manual system, no security measures were provided but in this system, password security has been provided. The person can access the system by providing the correct password otherwise he is denied the access.

2.4 Proposed System.

This system is basically concerned with the reservation and cancellation of railway tickets to the passengers. The need of this system arose because as is the known fact that India has the largest railway network in the whole of the world and to handle it manually is quite a tough job. By computerizing it, we will be able to overcome many of its limitations and will be able to make it more efficient. The handling of data and records for such a vast system is a very complex task if done manually but it can be made much easier if the system is computerized.
The basic functions being performed by our system are:
1.   RESERVATION MANAGEMENT
2.   FARE MANAGEMENT
3.   TIMETABLE MANAGEMENT

2.5 Advantages of the proposed system

1.   Computerization of reservation system will reduce a lot of daily paperwork and hence load on the staff of admin department.
2.   Machine does all the calculations. Hence, chances of error are low.
3.   Reservation, Cancellation or updation lists of Ticket's can easily be maintained and retrieved and any required additions, deletion or updation can easily be performed.
4.   This system provides User Name-Password validation, hence unauthorized access is prevented.

2.6 Conclusion

In our project Railway reservation system we have stored all the information about the Trains scheduled and the users booking tickets and even status of trains, seats etc. This data base is helpful for the applications which facilitate passengers to book the train tickets and check the details of trains and their status from their place itself it avoids inconveniences of going to railway station for each and every query they get. We had considered the most important requirements only, many more features and details cand be added to our project inorder to obtain even more user friendly applications. These applications are already in progress and in future they can be upgraded and may become part of amazing technology.

3.ANALYSIS

3.1 Software and Hardware Requirements

1. **Software Requirements**

    Any window based operating system with DOS support are primary requirements for software development. Windows XP, FrontPage and dumps are required. The systems must be connected via LAN and connection to internet is mandatory.

2. **Hardware Requirements**

    Minimum Hardware Requirements:

    a. Processor Pentium III

    b. Hard disk drive 40 GB

    c. RAM 128 MB

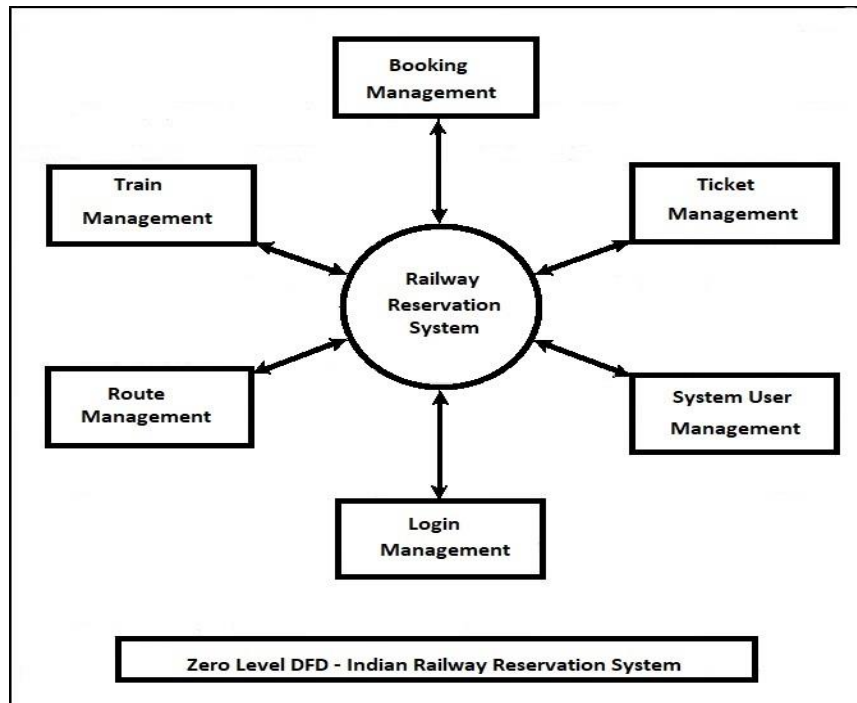   d. Cache 512 kb

    Preferred Hardware Requirements

    a. Processor Pentium IV

    b. Hard disk drive 80 GB

    c. RAM 256 MB
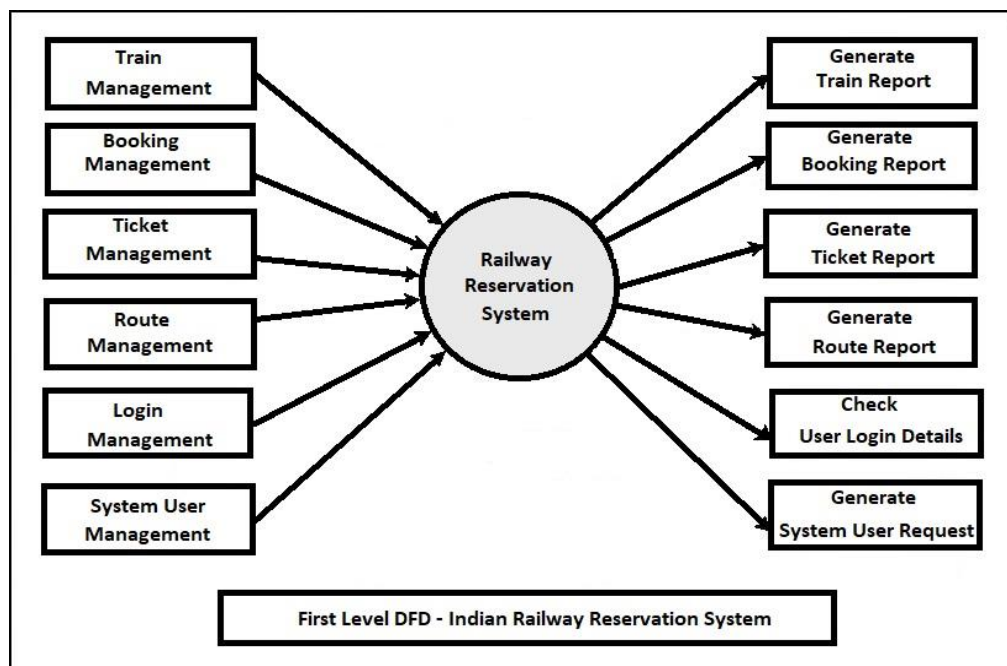
    d. Cache 512 kb

3.2 Content diagram

a) Flow Diagram
    1. Zero Level Flow Diagram

Zero Level DFD - Indian Railway Reservation System

    2. First Level Flow Diagram

First Level DFD - Indian Railway Reservation System

3. Second Level Flow Diagram

Second Level DFD - Indian Railway Reservation System
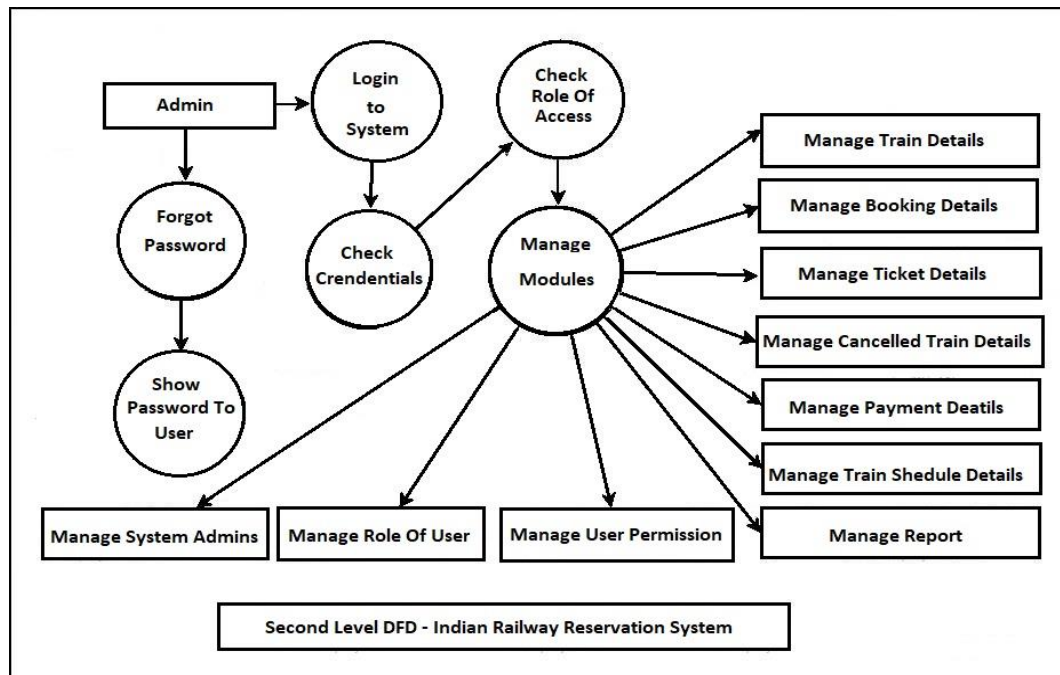
b) **Architectural Diagram**

1. **Pipe and Filter Architecture**

2. Layered Architecture
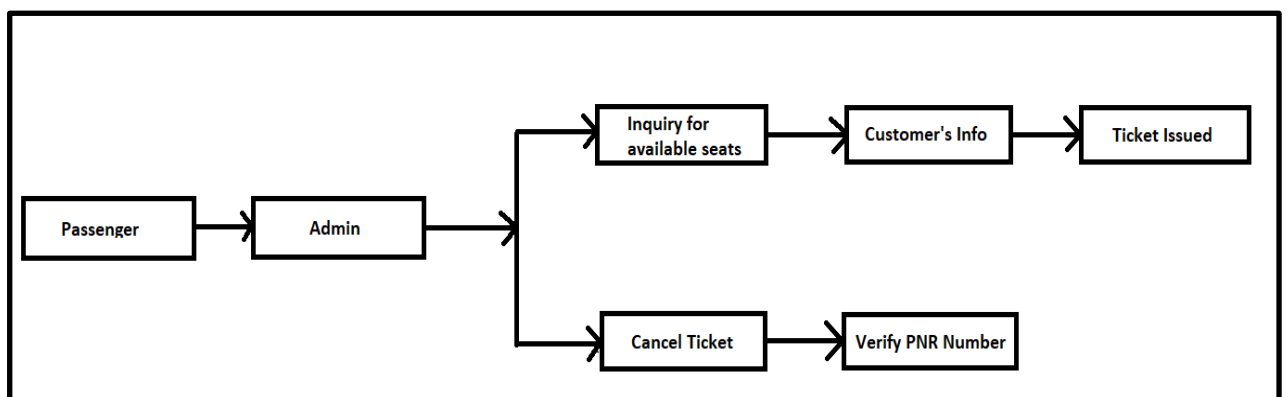
```
┌─────────────────────────────────────────┐
│   ┌─────────────────────────────┐        │
│   │     User Interface /        │        │
│   │     Admin Login             │        │
│   └─────────────────────────────┘        │
│                                          │
│   ┌─────────────────────────────┐        │
│   │     Authentication          │        │
│   │     and Management          │        │
│   └─────────────────────────────┘        │
│                                          │
│   ┌─────────────────────────────┐        │
│   │ Availability of Seats  /    │        │
│   │ and Schedule          /     │        │
│   │ Verification    / Cancel Ticket │    │
│   └─────────────────────────────┘        │
│                                          │
│   ┌─────────────────────────────┐        │
│   │ Get Information    /         │        │
│   │ and              /  Search   │        │
│   │ Book Ticket    /  PNR Number │        │
│   └─────────────────────────────┘        │
│                                          │
│   ┌─────────────────────────────┐        │
│   │ Ticket and        /         │        │
│   │ PNR Number      /           │        │
│   │ Issued     / Delete Record  │        │
│   └─────────────────────────────┘        │
│                                          │
│   ┌─────────────────────────────┐        │
│   │      Update Database        │        │
│   └─────────────────────────────┘        │
└─────────────────────────────────────────┘
```
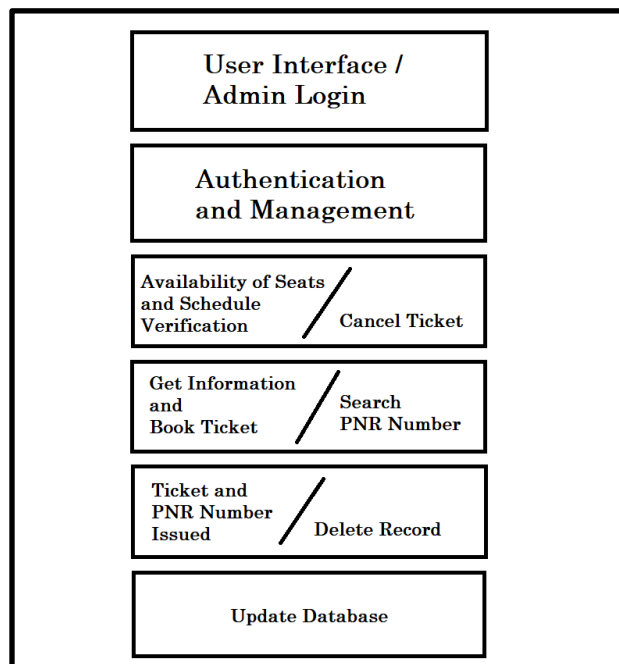
3. Client – Server Architecture

```
┌─────────────────────────────────────────┐
│   ( From        )      ( To          )   │
│   ( Station     )      ( Station     )   │
│        ↓                    ↓            │
│   ┌─────────────────────────────────┐   │
│   │           Internet              │   │
│   └─────────────────────────────────┘   │
│                   ↓                     │
│            (   Main   )                 │
│            (  Server  )                 │
│              ↓        ↓                 │
│        ( Train  )   ( Seat        )     │
│        (Schedules)  (Availability )     │
└─────────────────────────────────────────┘
```
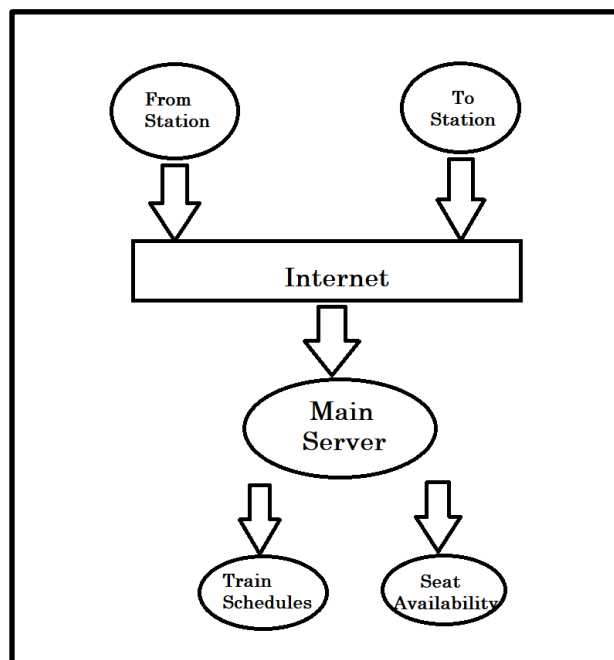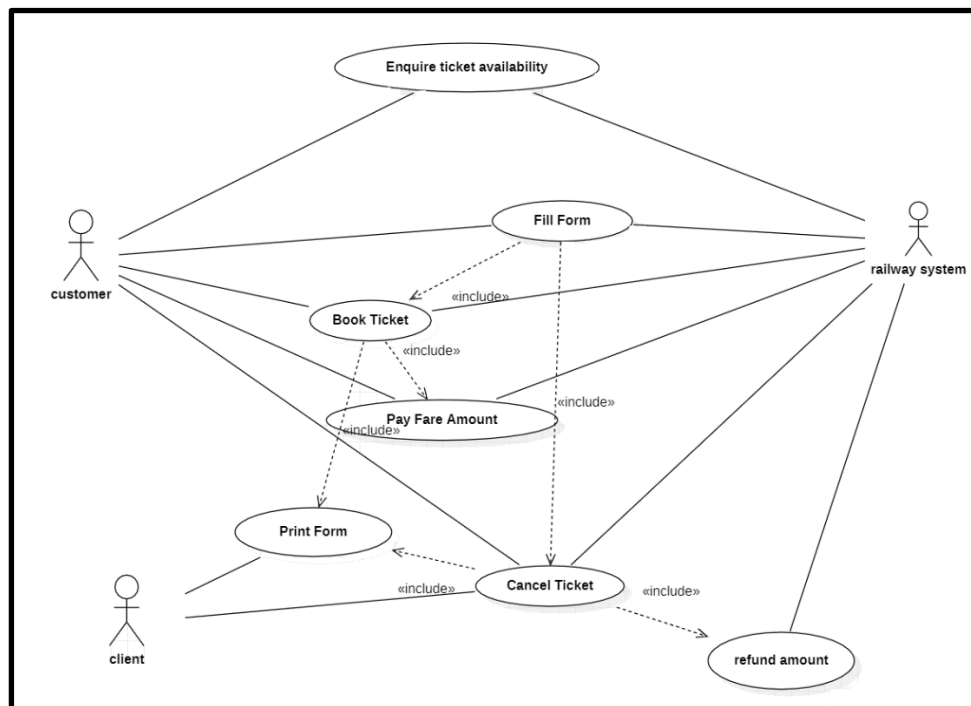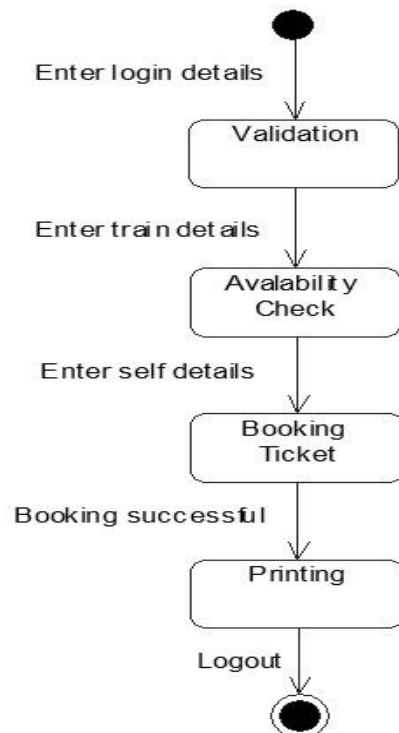
4. Design:

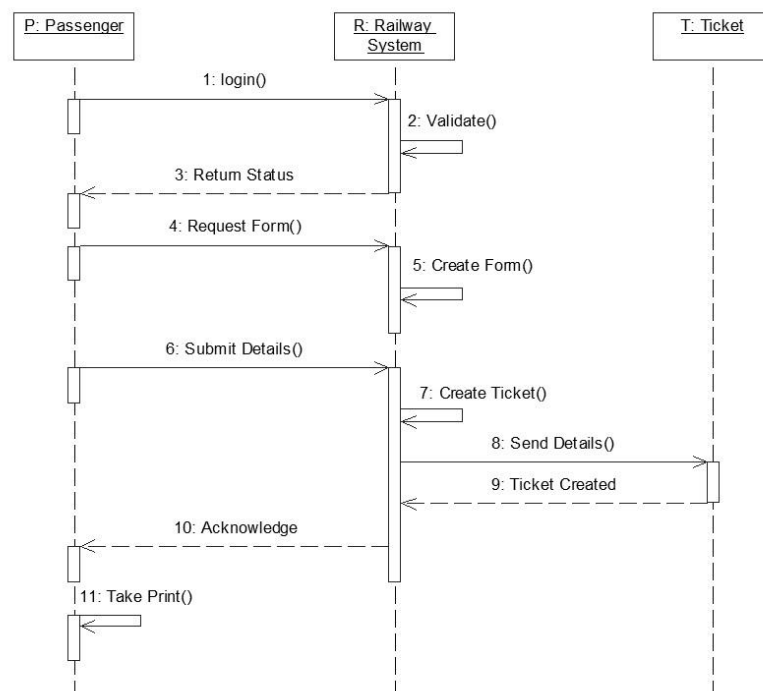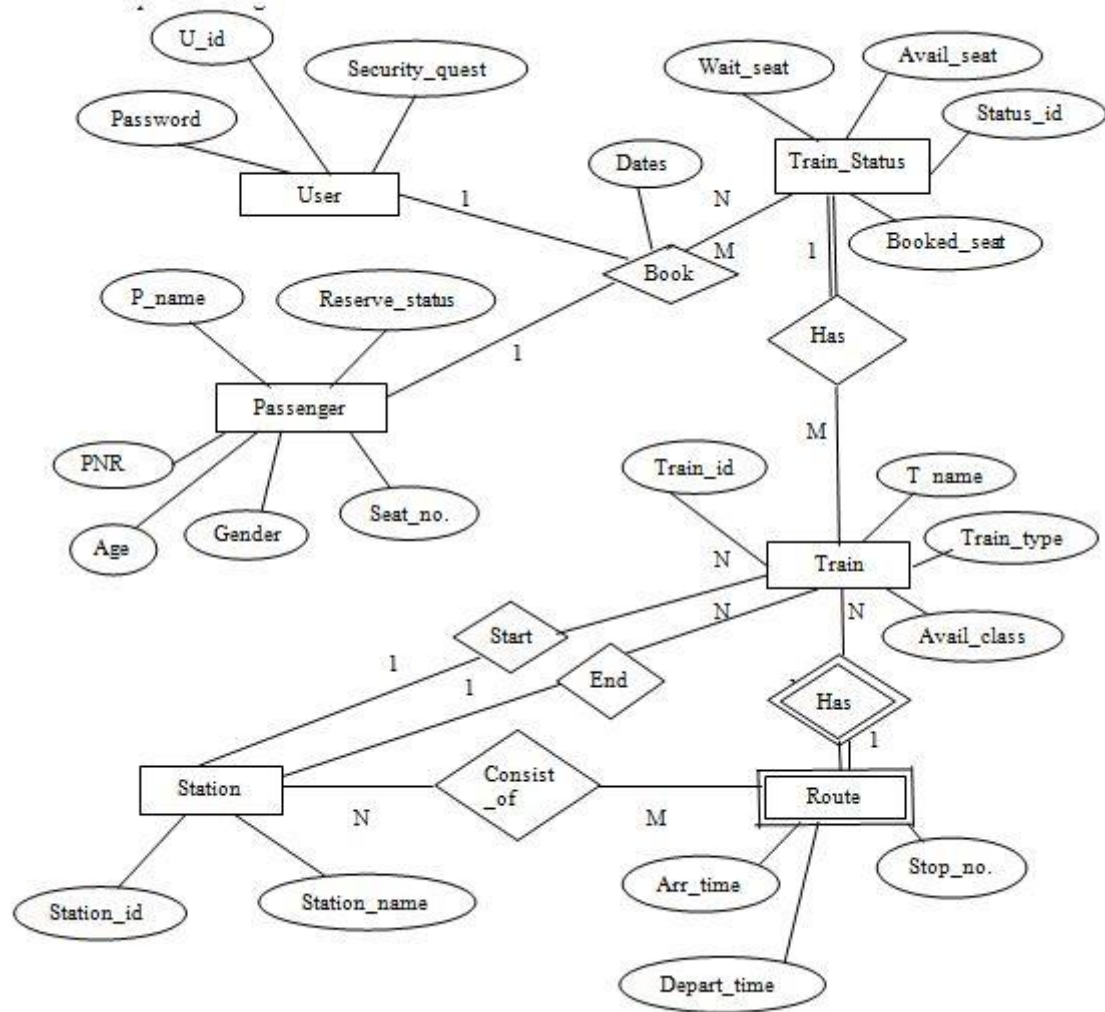### 4.1 Class Diagram
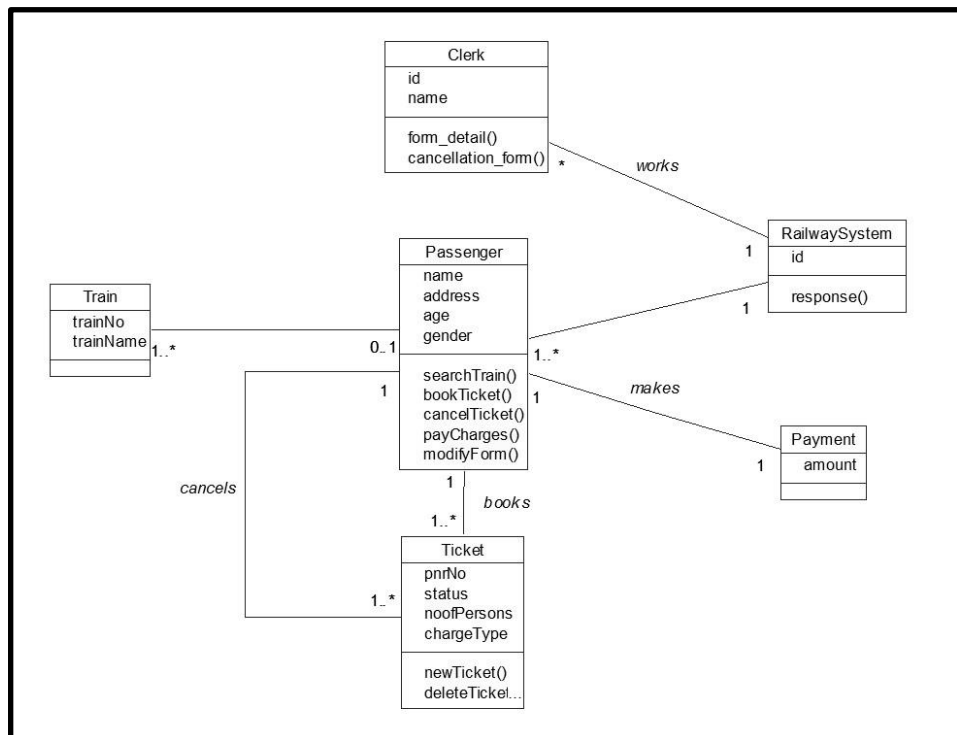
4.2 Use Case Diagram

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4.3 Activity Diagram

4.4 Sequence Diagram

4.5 ER Diagram

5.IMPLEMENTATION

5.1 Implementation Steps

    5.1.1   Install Python(3 or above).
    5.1.2   Install Django.
    5.1.3   Install SQLite.
    5.1.4   Clone the source code from github.
    5.1.5   Open terminal and run command "python manage.py runserver".
    5.1.6   Open localhost:8000/index in the browser.

5.2 Source Code

```
1)  main.html
{% load static %}
<html lang="en-us">
  <head>
    <title>IRCTC Next Generation eTicketing System</title>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel ="icon" href="/media/Logo2.PNG" type="image/x-icon">
    <link rel ="stylesheet" href ="/media/irctc.css" >
  </head>
  <body>
    <div class="top">
      <img src="/media/Logo1.PNG" alt="Logo1"
  style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
  bottom:8px;">
      <div class="top1">
      <br>
        <span style="color: red;margin-left:-10%;">    {% if messages %}
    {% for message in messages %}
      {% if message.tags == 'error'%}
        {{ message }}
      {% endif %}
    {% endfor %}
  {% endif %}</span>
      </div>
      <div class="top2">
        <a class="block"><span style="text-align:left;font-
    size:13px">IRCTC</span><span class="block1">Exclusive</span></a>
        <a>TRAINS</a>
        <a>STAYS</a>
        <a>LOYALTY</a>
        <a>Meals</a>
        <a>PROMOTIONS</a>
        <a>AT STATION</a>
        <a>IRCTC eWallet</a>
        <a>MORE</a>
        <button type="submit"
    onclick="document.getElementById('id03').style.display='block'" class="opt1"
    href="#" style="margin-left: 30px;width:20%;margin-top:-45px;background-color:
    #4CAF50;">PNR STATUS</button>
```

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```html
<div id="id03" class="modal2" style="width:50%;left:30%;top:20%;">
    <form class="modal-content2" method="post" enctype="multipart/form-data" action="{% url 'search' %}">{% csrf_token %}
        <div class="container1">
            <input type="tel" name="pnr" placeholder="Enter PNR Number" style="width:90%;border-radius: 8px;margin-top:25px;margin-bottom: 25px;" required><br>
            <button type="submit" style="border-radius: 5px;margin-top: 10px;margin-bottom:10px;width:80%">Search Status</button>
        </div>
        <div class="container" style="background-color:#f1f1f1;border-radius: 10px;padding-top:15px;padding-bottom:15px;">
            <button type="button" onclick="document.getElementById('id03').style.display='none'" class="cancelbtn" style="border-radius: 5px;width:30%">Cancel</button>
        </div>
    </form>
</div>
</div>
<button onclick="document.getElementById('id01').style.display='block'" class="login" style="width:auto;float:right;margin-top:-48px;margin-right: 150px;">Login</button>
<div id="id01" class="modal">
    <form class="modal-content animate" method="post" enctype="multipart/form-data" action="{% url 'login' %}">{% csrf_token %}
        <div class="container1">
            <input type="text" name="username" placeholder="User Name" style="width:100%;border-radius: 8px;" required><br>
            <input type="password" name="password" placeholder="Password"style="width:100%;border-radius: 8px;margin-top:20px;" required><br>
            <button type="submit" style="border-radius: 5px;margin-top: 10px;margin-bottom:10px">Login</button>
            <label>
                <input type="checkbox" checked="checked" name="remember"> Remember me
            </label>
        </div>
        <div class="container" style="background-color:#f1f1f1;border-radius: 10px;padding-top:15px;padding-bottom:15px;">
            <button type="button" onclick="document.getElementById('id01').style.display='none'" class="cancelbtn" style="border-radius: 5px;">Cancel</button>
            <span class="psw"><a href="{% url 'forgot' %}" target="_blank">Forgot Password?</a></span>
        </div>
    </form>
</div>
```

```html
<button onclick="document.getElementById('id02').style.display='block'"
    class="register1" style="width:auto;float:right;margin-top: -48px;margin-right:-
    190px">Register</button>
        <div id="id02" class="modal2" method="post">
          <form class="modal-content2"  method="post" enctype="multipart/form-
    data" action="{% url 'register' %}" >{% csrf_token %}
              <div class="container1" style="font-family: Garamond, serif;">
                <p style="font-size: 40px;margin-top:10px;margin-bottom:10px">Create
    Our Account</p>
                <hr>
                <div class="c1" style="box-shadow: 1px 0px;">
                    <span style="font-size: 30px;">Basic Details :</span><br>
                    <span style="font-size: 18px;">Please Enter Your valid
    Details.</span><br><br>
                    <input type="text" name="username" placeholder="User Name"
    style="width:90%;border-radius: 8px;" required><br>
                    <input type="password" name="password"
    placeholder="Password"style="width:90%;border-radius: 8px;margin-top:20px;"
    required><br>
                </div>
                <div class="c1" style="box-shadow: 1px 0px;margin-left:10px;">
                    <span style="font-family: Garamond, serif;font-size: 30px;">Personal
    Details :</span><br>
                    <input type="text" name="first_name" placeholder="First Name"
    style="width:43%;border-radius: 8px;" required>
                    <input type="text" name="last_name" placeholder="Last Name"
    style="width:43%;border-radius: 8px;margin-left:10px;" required>
                    <input type="email" name="email" placeholder="E-Mail ID"
    style="width:90%;border-radius: 8px;" required>
                    <input type="date" name="date_of_birth" placeholder="Date Of
    Birth" style="width:90%;border-radius: 8px;" required><br>
                    <input type="text" name="gender" placeholder="Gender"
    style="border-radius: 8px;width:90%">
                    <input type="tel" name="phone_no" placeholder="Phone No."
    style="width:90%;border-radius: 8px;">
                </div>
                <div class="c1" style="margin-left:10px;">
                    <span style="font-family: Garamond, serif;font-size:
    30px;">Address</span><br>
                    <input type="text" name="city" placeholder="City"
    style="width:90%;border-radius: 8px;" required>
                    <input type="text" name="state" placeholder="State"
    style="width:90%;border-radius: 8px;" required>
                </div>
                <div class="clearfix">
                    <button type="submit" class="registerbtn">Register</button>
                    <button type="button"
    onclick="document.getElementById('id02').style.display='none'"
    class="cancelbtn1">Cancel</button>
```

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```html
            </div>
          </div>
        </form>
      </div>

   </div>
   <div>
      <img src="/media/indian-railways-history.jpg"  alt="Train Wallpaper"
style="width:100%;height:720px">
      <div class="text-block" style="padding-bottom:10px;">
         <span style="font-size:75px;font-weight:500;letter-spacing:-
1.5px;">BOOK</span><br>
         <p style="font-size:25px;font-weight:200;margin-top:-30px;">YOUR
TICKET</p><br>
         <img src="/media/trainb.PNG" alt="train"
style="width:45px;height:45px;margin-top:-40px;">
         <form method="post" enctype="multipart/form-data" action="{% url
'showtrains' %}">{% csrf_token %}
           <select name="from_station"  placeholder="From*" style="color:rgb(0, 0,
0);width:85%;height:38px;margin-bottom:-5px;box-shadow: 0px 8px 16px 0px
rgb(0, 0, 0,0.2);border-color: white;background-color: rgb(255, 255, 255);border-
radius: 8px;margin-top:20px;" required>
              <option>From*</option>
              <option>SECUNDERABAB JN</option>
              <option>MGR CHENNAI CTL</option>
              <option>KSR BENGALURU</option>
              <option>NEW DELHI</option>
              <option>MUMBAI CENTRAL</option>
           </select><br>
           <span style="font-size:30px;color:rgb(8, 8, 141);cursor:
pointer;">&#8593;</span>
           <span style="font-size:30px;margin-left:-20px;color:rgb(8, 8, 141);cursor:
pointer;">&#8595;</span><br>
           <select name="to_station" placeholder="To*" style="color:rgb(0, 0,
0);width:85%;height:38px;margin-top:0px;box-shadow: 0px 8px 16px 0px rgb(0, 0,
0,0.2);border-color: white;border-radius: 8px;" required>
              <option>To*</option>
              <option>SECUNDERABAB JN</option>
              <option>MGR CHENNAI CTL</option>
              <option>KSR BENGALURU</option>
              <option>NEW DELHI</option>
              <option>MUMBAI CENTRAL</option>
           </select><br>
           <input type="date" name="date" style="color:rgb(0, 0,
0);width:85%;height:38px;margin-top:20px;box-shadow: 0px 8px 16px 0px rgb(0,
0, 0,0.2);border-color: white;border-radius: 8px;" required><br>
           <select name="avlClasses" style="width:85%;height:38px;margin-
top:12px;box-shadow: 0px 8px 16px 0px rgb(0, 0, 0,0.2);border-color:
white;border-radius: 8px;" required>
              <option>All Classes</option></select><br>
```

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```html
<button type="submit" class="opt" style="width:80%;border-radius:10px;margin-
top:20px;background-color: rgba(0, 128, 0, 0.726);">Find Trains</button>
    </form>
    </div>
    <div class="text-block3">
        <span style="font-size:80px;letter-spacing: 1px;font-weight:400;">INDIAN
RAILWAYS</span><br>
        <span style="font-size:30px;font-weight:bolder">|</span>
        <span style="font-size:25px;font-weight:bolder">Safety</span>
        <span style="font-size:30px;font-weight:bolder">|</span>
        <span style="font-size:25px;font-weight:bolder">Security</span>
        <span style="font-size:30px;font-weight:bolder">|</span>
        <span style="font-size:25px;font-weight:bolder">Punctuality</span>
        <span style="font-size:30px;font-weight:bolder">|</span>
    </div>
    <div class="text-block1">
        <button type="submit"
onclick="document.getElementById('id03').style.display='block'" class="opt1"
href="#" style="margin-left: 15px;">PNR STATUS</button>
        <div id="id03" class="modal2" style="width:50%;left:30%;top:20%;">
            <form class="modal-content2" method="post" enctype="multipart/form-
data" action="{% url 'search' %}">{% csrf_token %}
                <div class="container1">
                    <input type="tel" name="pnr" placeholder="Enter PNR Number"
style="width:90%;border-radius: 8px;margin-top:25px;margin-bottom: 25px;"
required><br>
                    <button type="submit" style="border-radius: 5px;margin-top:
10px;margin-bottom:10px;width:80%">Search Status</button>
                </div>
                <div class="container" style="background-color:#f1f1f1;border-radius:
10px;padding-top:15px;padding-bottom:15px;">
                    <button type="button"
onclick="document.getElementById('id03').style.display='none'" class="cancelbtn"
style="border-radius: 5px;width:30%">Cancel</button>
                </div>
            </form>
        </div>
    </div>
</div>
<script>

    var modal = document.getElementById('id01');
    window.onclick = function(event) {
        if (event.target == modal) {
            modal.style.display = "none";
        }
    }
```

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```
            var modal = document.getElementById('id02');
            window.onclick = function(event) {
              if (event.target == modal) {
                modal.style.display = "none";
              }
            }

            var modal = document.getElementById('id03');
            window.onclick = function(event) {
              if (event.target == modal) {
                modal.style.display = "none";
              }
            }
        </script>
      </body>
    </html>
```

2) main1.html:

```
{% load static %}
<html lang="en-us">
  <head>
    <title>IRCTC Next Generation eTicketing System</title>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
    <link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
    <link rel ="stylesheet" href ="/media/irctc.css" >
  </head>
  <body>
    <div class="top">
      <img src="/media/Logo1.PNG" alt="Logo1"
  style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
  bottom:8px;">
      <img src="/media/Logo2.PNG" alt="Logo2"
  style="float:right;width:60px;height:65px;margin-top:8px;margin-
  right:15px;margin-bottom:8px;">
      <div class="top1">
        <br>
      </div>
      <div class="top2">
        <i class="fas fa-home" style="color:gray;font-size:17px;margin-
  top:7px;cursor: pointer;"></i>
        <a class="block"><span style="text-align:left;font-
  size:13px">IRCTC</span><span class="block1">Exclusive</span></a>
        <a>TRAINS</a>
        <a>STAYS</a>
        <a>LOYALTY</a>
        <a>Meals</a>
        <a>PROMOTIONS</a>
        <a>AT STATION</a><a>IRCTC eWallet</a>
```

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```html
        <a>MORE</a>
        <button type="submit"
onclick="document.getElementById('id03').style.display='block'" class="opt1"
href="#" style="margin-left: 40px;width:15%;margin-top:-45px;background-color:
#4CAF50;">PNR STATUS</button>
    <div id="id03" class="modal2" style="width:50%;left:30%;top:20%;">
      <form class="modal-content2" method="post" enctype="multipart/form-data"
action="{% url 'search' %}">{% csrf_token %}
        <div class="container1">
          <input type="tel" name="pnr" placeholder="Enter PNR Number"
style="width:90%;border-radius: 8px;margin-top:25px;margin-bottom: 25px;"
required><br>
          <button type="submit" style="border-radius: 5px;margin-top:
10px;margin-bottom:10px;width:80%">Search Status</button>
        </div>
        <div class="container" style="background-color:#f1f1f1;border-radius:
10px;padding-top:15px;padding-bottom:15px;">
          <button type="button"
onclick="document.getElementById('id03').style.display='none'" class="cancelbtn"
style="border-radius: 5px;width:30%">Cancel</button>
        </div>
      </form>
    </div>
    {% if details %}
      {% for item in details %}
      <form method="post" enctype="multipart/form-data" action="{% url 'logout'
%}">{% csrf_token %}
        <button type="submit"  class="login" style="width:6%;float:right;margin-
top:-48px;margin-right: 25px;">Logout</button>
        <p style="float: right;margin-right:25px;margin-top:-35px;font-
size:25px;color:blue"><a href="#">{{ item.username }}</a></p>
      </form>
      {% endfor %}
    {% else %}
      <button onclick="document.getElementById('id01').style.display='block'"
class="login" style="width:auto;float:right;margin-top:-44px;margin-right:
140px;">Login</button>
    <div id="id01" class="modal">
      <form class="modal-content animate" method="post"
enctype="multipart/form-data" action="{% url 'login' %}">{% csrf_token %}
        <div class="container1">
          <input type="text" name="username" placeholder="User Name"
style="width:100%;border-radius: 8px;" required><br>
          <input type="password" name="password"
placeholder="Password"style="width:100%;border-radius: 8px;margin-top:20px;"
required><br>
```

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```html
<button type="submit" style="border-radius: 5px;margin-top: 10px;margin-
    bottom:10px">Login</button>
                <label>
                    <input type="checkbox" checked="checked" name="remember">
        Remember me
                </label>
            </div>
            <div class="container" style="background-color:#f1f1f1;border-radius:
    10px;padding-top:15px;padding-bottom:15px;">
                <button type="button"
    onclick="document.getElementById('id01').style.display='none'" class="cancelbtn"
    style="border-radius: 5px;">Cancel</button>
                <span class="psw"><a href="{% url 'forgot' %}"
    target="_blank">Forgot Password?</a></span>
            </div>
        </form>
    </div>
    <button onclick="document.getElementById('id02').style.display='block'"
    class="register" style="width:auto;float:right;margin-top: -44px;margin-right:-
    190px">Register</button>
    <div id="id02" class="modal2" method="post">
        <form class="modal-content2"  method="post" enctype="multipart/form-
    data" action="{% url 'register' %}" >{% csrf_token %}
            <div class="container1" style="font-family: Garamond, serif;">
                <p style="font-size: 40px;margin-top:10px;margin-bottom:10px">Create
    Our Account</p>
                <hr>
                <div class="c1" style="box-shadow: 1px 0px;">
                    <span style="font-size: 30px;">Basic Details :</span><br>
                    <span style="font-size: 18px;">Please use a valid E-Mail ID and
    Mobile Number.</span><br><br>
                    <input type="text" name="username" placeholder="User Name"
    style="width:90%;border-radius: 8px;" required><br>
                    <input type="password" name="password"
    placeholder="Password"style="width:90%;border-radius: 8px;margin-top:20px;"
    required><br></div>
                <div class="c1" style="box-shadow: 1px 0px;margin-left:10px;">
                    <span style="font-family: Garamond, serif;font-size: 30px;">Personal
    Details :</span><br>
                    <input type="text" name="first_name" placeholder="First Name"
    style="width:43%;border-radius: 8px;" required>
                    <input type="text" name="last_name" placeholder="Last Name"
    style="width:43%;border-radius: 8px;margin-left:10px;" required>
                    <input type="email" name="email" placeholder="E-Mail ID"
    style="width:90%;border-radius: 8px;" required>
                    <input type="date" name="date_of_birth" placeholder="Date Of
    Birth" style="width:90%;border-radius: 8px;" required><br>
                    <input type="text" name="gender" placeholder="Gender"
    style="border-radius: 8px;width:90%">
```

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```html
<input type="tel" name="phone_no" placeholder="Phone No."
    style="width:90%;border-radius: 8px;">
            </div>
            <div class="c1" style="margin-left:10px;">
                <span style="font-family: Garamond, serif;font-size:
30px;">Address</span><br>
                <input type="text" name="city" placeholder="City"
    style="width:90%;border-radius: 8px;" required>
                <input type="text" name="state" placeholder="State"
    style="width:90%;border-radius: 8px;" required>
            </div>
            <div class="clearfix">
                <button type="submit" class="registerbtn">Register</button>
                <button type="button"
    onclick="document.getElementById('id02').style.display='none'"
    class="cancelbtn1">Cancel</button>
            </div>
        </div>
    </form>
</div>
{% endif %}

</div>
<div>
    <img src="/media/indian-railways-history.jpg"  alt="Train Wallpaper"
    style="width:100%;height:720px">
    <div class="text-block" style="padding-bottom:10px;">
        <span style="font-size:75px;font-weight:500;letter-spacing:-
1.5px;">BOOK</span><br>
        <p style="font-size:25px;font-weight:200;margin-top:-30px;">YOUR
TICKET</p><br>
        <img src="/media/trainb.PNG" alt="train"
    style="width:45px;height:45px;margin-top:-40px;">
        <form method="post" enctype="multipart/form-data" action="{% url
'showtrains' %}">{% csrf_token %}
            <select name="from_station"  placeholder="From*" style="color:rgb(0, 0,
0);width:85%;height:38px;margin-bottom:-5px;box-shadow: 0px 8px 16px 0px
rgb(0, 0, 0,0.2);border-color: white;background-color: rgb(255, 255, 255);border-
radius: 8px;margin-top:20px;" required>
                <option>From*</option>
                <option>SECUNDERABAB JN</option>
                <option>MGR CHENNAI CTL</option>
                <option>KSR BENGALURU</option>
                <option>NEW DELHI</option>
                <option>MUMBAI CENTRAL</option>
            </select><br>
            <span style="font-size:30px;color:rgb(8, 8, 141);cursor:
pointer;">&#8593;</span>
            <span style="font-size:30px;margin-left:-20px;color:rgb(8, 8, 141);cursor:
pointer;">&#8595;</span><br>
```

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```html
<select name="to_station" placeholder="To*" style="color:rgb(0, 0,
    0);width:85%;height:38px;margin-top:0px;box-shadow: 0px 8px 16px 0px rgb(0, 0,
    0,0.2);border-color: white;border-radius: 8px;" required>
        <option>To*</option>
        <option>SECUNDERABAB JN</option>
        <option>MGR CHENNAI CTL</option>
        <option>KSR BENGALURU</option>
        <option>NEW DELHI</option>
        <option>MUMBAI CENTRAL</option>
    </select><br>
    <input type="date" name="date" style="color:rgb(0, 0,
0);width:85%;height:38px;margin-top:22px;box-shadow: 0px 8px 16px 0px rgb(0,
0, 0,0.2);border-color: white;border-radius: 8px;" required><br>
    <select name="class" style="width:85%;height:38px;margin-top:15px;box-
shadow: 0px 8px 16px 0px rgb(0, 0, 0,0.2);border-color: white;border-radius: 8px;"
required>
        <option>All Classes</option>
    </select><br>
    <button type="submit" class="opt" style="width:80%;border-
radius:10px;margin-top:24px;background-color: rgba(0, 128, 0, 0.726);">Find
Trains</button>
    </form>
    </div>
    <div class="text-block3">
        <span style="font-size:80px;letter-spacing: 1px;font-weight:400;">INDIAN
RAILWAYS</span><br>
        <span style="font-size:30px;font-weight:bolder">|</span>
        <span style="font-size:25px;font-weight:bolder">Safety</span>
        <span style="font-size:30px;font-weight:bolder">|</span>
        <span style="font-size:25px;font-weight:bolder">Security</span>
        <span style="font-size:30px;font-weight:bolder">|</span>
        <span style="font-size:25px;font-weight:bolder">Punctuality</span>
        <span style="font-size:30px;font-weight:bolder">|</span>
    </div>
    <div class="text-block1">
        <button type="submit"
onclick="document.getElementById('id03').style.display='block'" class="opt1"
href="#" style="margin-left: 15px;">PNR STATUS</button>
        <div id="id03" class="modal2" style="width:50%;left:30%;top:20%;text-
align: center;">
            <form class="modal-content2" method="post" enctype="multipart/form-
data">{% csrf_token %}
                <div class="container1">
                    <input type="tel" name="pnrnumber" placeholder="Enter PNR
Number" style="width:90%;border-radius: 8px;" required><br>
                    <button type="submit" style="border-radius: 5px;margin-top:
10px;margin-bottom:10px">Search Status</button>
                </div>
                <div class="container" style="background-color:#f1f1f1;border-radius:
10px;padding-top:15px;padding-bottom:15px;">
```

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```html
<button type="button" onclick="document.getElementById('id03').style.display='none'"
    class="cancelbtn" style="border-radius: 5px;">Cancel</button>
            </div>
          </form>
        </div>
      </div>
    </div>
    <script type="text/javascript">
      (function(d, m){
        var kommunicateSettings =

{"appId":"106bbbcc6fb25d8c95c1da9aa360c41e2","popupWidget":true,"automatic
ChatOpenOnNavigation":true};
        var s = document.createElement("script"); s.type = "text/javascript"; s.async =
true;
        s.src = "https://widget.kommunicate.io/v2/kommunicate.app";
        var h = document.getElementsByTagName("head")[0]; h.appendChild(s);
        window.kommunicate = m; m._globals = kommunicateSettings;
      })(document, window.kommunicate || {});
    </script>
    <script>

      var modal = document.getElementById('id01');
      window.onclick = function(event) {
        if (event.target == modal) {
          modal.style.display = "none";
        }
      }

      var modal = document.getElementById('id02');
      window.onclick = function(event) {
        if (event.target == modal) {
          modal.style.display = "none";
        }
      }

      var modal = document.getElementById('id03');
      window.onclick = function(event) {
        if (event.target == modal) {
          modal.style.display = "none";
        }
      }
    </script>
  </body>
  </html>
```

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3) For.html

```
{% load static %}
<html>
   <head>
   <title>Forgot Password</title>
   <link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
   <link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
   <link rel ="stylesheet" href ="/media/irctc.css" >
   </head>
   <body>
     <div class="top">
        <img src="/media/Logo1.PNG" alt="Logo1"
     style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
     bottom:8px;">
        <img src="/media/Logo2.PNG" alt="Logo2"
     style="float:right;width:60px;height:65px;margin-top:8px;margin-
     right:15px;margin-bottom:8px;">
        <span style="margin-left:40%;font-size: 55px;font-family: Garamond,
     serif;">IRCTC</span>
      </div> <br>
      <span style="margin-left: 25%;color:rgb(223, 21, 21)">
      {% if messages %}
      {% for message in messages %}
         {% if message.tags == 'error'%}
            {{ message }}
         {% endif %}
      {% endfor %}
    {% endif %}</span>
      <div class="forgot">
        <br>
        <span style="font-family: Courier New;"></span><br>
        <form class="forgotcontent" method="post" enctype="multipart/form-data"
     action="{% url 'change' %}" >{% csrf_token %}
           <label style="float:left;font-size:18px;margin-top:30px;margin-
     left:28px;"><b>Enter Username:</b></label>
           <input name="username" type="text" placeholder="Username"
     style="width:90%;border-radius: 8px;margin-top:10px;" required><br>
           <label style="float:left;font-size:18px;margin-top:20px;margin-
     left:28px;"><b>Enter PhoneNo.</b></label>
           <input name="phone_no" type="tel" placeholder="Phone
     No."style="width:90%;border-radius: 8px;margin-top:10px;" required><br>
           <button type="submit" class="opt" style="width:80%;border-
     radius:10px;margin-top:20px;background-color: rgba(0, 128, 0,
     0.726);">Submit</button>
        </form>
      </div>
   </body>
   </html>
```

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4) for1.html

```
{% load static %}
<title>Change Password</title>
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
<link rel ="stylesheet" href ="/media/irctc.css" >
    <div class="top">
        <img src="/media/Logo1.PNG" alt="Logo1"
    style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
    bottom:8px;">
        <img src="/media/Logo2.PNG" alt="Logo2"
    style="float:right;width:60px;height:65px;margin-top:8px;margin-
    right:15px;margin-bottom:8px;">
        <span style="margin-left:40%;font-size: 55px;font-family: Garamond,
    serif;">IRCTC</span>
      </div> <br>
      <div class="forgot">
        <br>
        <span style="font-family: Courier New;">Your Password
    Details</span><br><br>
        <form class="forgotcontent" method="post" enctype="multipart/form-data"
    action="{% url 'logout' %}" >{% csrf_token %}
          {% if details %}
          {% for item in details %}
          <span style="margin-top:10%">UserName : {{item.username}}</span><br>
          <span>Your Password : {{item.password}}</span><br>
          {% endfor %}
          {% endif %}
          <button type="submit">Confirm</button>
        </form>
         </div>
```

5) result.html
```
{% load static %}

<title>Train Result</title>
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
<link rel ="stylesheet" href ="/media/irctc.css" >
<body>
<div class="top1">
  <img src="/media/Logo1.PNG" alt="Logo1"
    style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
    bottom:8px;">
  <img src="/media/Logo2.PNG" alt="Logo2"
    style="float:right;width:60px;height:65px;margin-top:8px;margin-
    right:15px;margin-bottom:8px;">
  <span style="margin-left:40%;font-size: 55px;font-family: Garamond,
    serif;">IRCTC</span>
```

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```html
        </div>
        <div class="top2">
          <form method="post" enctype="multipart/form-data" action="{% url 'showtrains'
          %}">{% csrf_token %}
            <select name="from_station" style="color:rgb(0, 0,
          0);width:18%;height:45px;box-shadow: 0px 8px 16px 0px rgb(0, 0, 0,0.2);border-
          color: white;background-color: rgba(255, 255, 255, 0.925);border-radius:
          8px;margin-top:35px;margin-left:30px;" required>
              <option>From*</option>
              <option>SECUNDERABAB JN</option>
              <option>MGR CHENNAI CTL</option>
              <option>KSR BENGALURU</option>
              <option>NEW DELHI</option>
              <option>MUMBAI CENTRAL</option>
            </select>
            <select name="to_station" placeholder="To*" style="color:rgb(0, 0,
          0);width:18%;height:45px;margin-top:0px;box-shadow: 0px 8px 16px 0px rgb(0, 0,
          0,0.2);border-color: white;background-color: rgba(255, 255, 255, 0.925);border-
          radius: 8px;margin-left:30px;" required>
              <option>To*</option>
              <option>SECUNDERABAB JN</option>
              <option>MGR CHENNAI CTL</option>
              <option>KSR BENGALURU</option>
              <option>NEW DELHI</option>
              <option>MUMBAI CENTRAL</option>
            </select>
            <input type="date" name="date" style="color:rgb(0, 0,
          0);width:18%;height:45px;margin-top:15px;box-shadow: 0px 8px 16px 0px rgb(0,
          0, 0,0.2);border-color: white;background-color: rgba(255, 255, 255, 0.925);border-
          radius: 8px;margin-left:30px;" required>
            <select name="avlClasses" style="width:18%;height:45px;margin-top:18px;box-
          shadow: 0px 8px 16px 0px rgb(0, 0, 0,0.2);border-color: white;background-color:
          rgba(255, 255, 255, 0.925);border-radius: 8px;margin-left:30px;" required>
              <option>All Classes</option>
            </select>
          <button type="submit" class="opt" style="height:45px;width:13%;padding-
          top:8px;padding-bottom:8px;border-radius:10px;margin-top:20px;background-
          color: #00ac06;margin-left: 40px;border: none;">Find Trains</button>
        </form>
        </div>
        <br><br>
        {% if details %}
          {% for item in details %}
          <div style="margin-left:50px;font-size:23px;font-family:Garamond, serif;">{{ count
          }} Result is Found From {{ item.fromStnCode }} To {{ item.toStnCode }} |
          {{item.date}} For {{item.avlClasses}}</div><br>
          <div class="box">
            <span style="margin-left:45px;font-family:Garamond, serif;font-
          size:23px;color:black;">{{ item.fromStnCode }}</span>
```

```html
<span style="margin-left:19%;font-family:Garamond, serif;font-
  size:23px;color:black;">---{{item.duration}}---</span>
  <span style="margin-left:20%;font-family:Garamond, serif;font-
  size:23px;color:black;">{{item.toStnCode}}</span><br><br>
  <span style="margin-left:45px;font-family:Garamond, serif;font-
  size:23px;color:black;">{{item.departureTime}} | {{item.date}}</span>
  <span style="margin-left:52%;font-family:Garamond, serif;font-
  size:23px;color:black;">{{item.arrivalTime}} |
{{item.arrivaldate}}</span><br><br>
  <span style="margin-left:45px;font-family:Garamond, serif;font-
  size:23px;color:black;">{{item.avlClasses}} are Available</span>
  <span style="margin-left:39%;font-family:Garamond, serif;font-
  size:23px;color:black;">Runs On {{item.days}}</span><br><br>
  <button onclick="document.getElementById('id01').style.display='block'"
class="book" style="width:10%;border-radius:10px;background-color: rgba(0, 128,
0, 0.726);margin-left: 83%;">Book</button>
  <div id="id01" class="modal2" style="width:50%;left:25%;top:-2%;">
    <form class="modal-content2" method="post" enctype="multipart/form-data"
action="{% url 'book' %}">{% csrf_token %}
        <div class="container1">
          <span style="font-family:Garamond, serif;font-size:35px;color:black">Fill
Your Details</span>
          <input type="text" name="username" placeholder="Name" style="border-
radius: 8px;margin-top: 15px;" required><br>
          <input type="tel" name="phone_no" placeholder="Phone No."
style="border-radius: 8px;margin-top: 15px;" required>
          <input type="text" name="from_stn" placeholder="From*" style="border-
radius: 8px;margin-top: 15px;" value="{{item.fromStnCode}}" required><br>
          <input type="text" name="to_stn" placeholder="From*" style="border-
radius: 8px;margin-top: 15px;" value="{{item.toStnCode}}" required><br>
          <input type="text" name="date" style="border-radius: 8px;margin-top:
15px;" value="{{item.date}}" required><br>
          <input type="tel" name="age" placeholder="Age" style="border-radius:
8px;margin-top: 15px;" required>
        </div>
        <div style="background-color:#f1f1f1;text-align:center;border-radius: 8px;">
          <button type="submit" class="ticket" style="width:50%;border-radius:
5px;border-radius: 10px;margin-top:30px;margin-bottom: 30px;">Book
Ticket</button>
          <button type="button"
onclick="document.getElementById('id01').style.display='none'" class="cancelbtn"
style="border-radius: 10px;color:white">Cancel</button>
        </div>
      </form>
    </div>
  </div>
  <div class="box1">
```

```
        <br>
         <a>SECOND SITTING(2S): {{ item.second_sitting}}</a><br>
         <a>SLEPPER CLASS:{{item.sleeper_class}}</a><br>
         <a>AC 3TIER: {{item.AC_threetier}}</a><br>
         <a>AC 2TIER: {{item.AC_twotier}}</a><br>
         <a>AC 1TIER: {{item.AC_onetier}}</a>
      </div>
     {% endfor %}
  {% else %}

    <div style="margin-left: 150px;">No Trains Found for your search></div>

  {% endif %}
  </body>
  <script>
     var modal = document.getElementById('id01');
        window.onclick = function(event) {
          if (event.target == modal) {
             modal.style.display = "none";
          }
        }
  </script>

  6) pnr.html
  {% load static %}

  <title>PNR Details</title>
  <link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
  <link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
  <link rel ="stylesheet" href ="/media/irctc.css" >
  <div class="top1">
     <img src="/media/Logo1.PNG" alt="Logo1"
     style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
     bottom:8px;">
     <img src="/media/Logo2.PNG" alt="Logo2"
     style="float:right;width:60px;height:65px;margin-top:8px;margin-
     right:15px;margin-bottom:8px;">
     <span style="margin-left:0%;font-size: 55px;font-family: Garamond,
     serif;">IRCTC</span>
  </div>
  <body>
  <br><br>
  {% if details %}
       <span style="font-size: 35px;font-family: Garamond, serif;">Your Tickets Have
     Been Booked</span><br>
       <span style="font-size: 30px;font-family: Garamond, serif;">Your PNR Number :
     {{ details.pnr }}</span>
       <form method="post" enctype="multipart/form-data" action="{% url 'logout'
     %}">{% csrf_token %}
```

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```
<button type="submit"  class="ok" style="width:8%;margin-top:20px;">OK</button>
    </form>
```

{% endif %}
</body>

7) search.html
{% load static %}

```
<title>PNR Details</title>
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
<link rel ="stylesheet" href ="/media/irctc.css" >
<div class="top1">
   <img src="/media/Logo1.PNG" alt="Logo1"
   style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
   bottom:8px;">
   <img src="/media/Logo2.PNG" alt="Logo2"
   style="float:right;width:60px;height:65px;margin-top:8px;margin-
   right:15px;margin-bottom:8px;">
   <span style="margin-left:0%;font-size: 55px;font-family: Garamond,
   serif;">IRCTC</span>
</div>
<body>
<br><br>
{% if details %}
      {% for item in details %}
         <form method="post" enctype="multipart/form-data" action="{% url 'logout'
   %}">{% csrf_token %}
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:35px">Details for PNR Number : {{item.pnr}}</span><br><br>
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:25px">Name : {{item.name}}</span><br>
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:25px">Phone No. : {{item.phone_no}}</span><br>
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:25px">From Station : {{item.fromStnCode}}</span><br>
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:25px">To Station : {{item.toStnCode}}</span><br>
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:25px">Date : {{item.date}}</span><br><br>
            <button type="submit"  class="ok" style="width:8%;margin-
   top:20px;">OK</button>
         </form>
            <span style="text-align: center;font-family: Garamond, serif;font-
   size:35px">To Cancel Your Ticket Please Click On Cancel -></span>
            <button type="submit"  class="ok"
   onclick="document.getElementById('id03').style.display='block'"
   style="width:8%;margin-top:20px;background-color: red;color:
   white;">Cancel</button>
```

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```
<div id="id03" class="modal2" style="width:50%;left:30%;top:20%;">
    <form class="modal-content2" method="post"
enctype="multipart/form-data" action="{% url 'cancel' %}">{% csrf_token %}
        <div class="container1">
            <span style="text-align: center;font-family: Garamond,
serif;font-size:25px">Please Provide Your PNR Number Once Again!</span>
            <input type="tel" name="pnr" placeholder="Enter PNR Number"
style="width:90%;border-radius: 8px;margin-top:25px;margin-bottom: 25px;"
required><br>
            <button type="submit" style="border-radius: 5px;margin-top:
10px;margin-bottom:10px;width:50%;background-color: rgba(255, 0, 0,
0.63);color: white;padding:10px 15px;border: none;">cancel</button>
        </div>
    </form>
</div>
{% endfor %}
{% endif %}
</body>

<script>
    var modal = document.getElementById('id03');
        window.onclick = function(event) {
            if (event.target == modal) {
                modal.style.display = "none";
            }
        }
</script>
```

8) cancel.html

```
{% load static %}

<title>PNR Details</title>
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="icon" href="/media/Logo2.PNG" type="image/x-icon">
<link rel ="stylesheet" href ="/media/irctc.css" >
<div class="top1">
    <img src="/media/Logo1.PNG" alt="Logo1"
    style="float:left;width:65px;height:65px;margin-top:8px;margin-left:10px;margin-
    bottom:8px;">
    <img src="/media/Logo2.PNG" alt="Logo2"
    style="float:right;width:60px;height:65px;margin-top:8px;margin-
    right:15px;margin-bottom:8px;">
    <span style="margin-left:0%;font-size: 55px;font-family: Garamond,
    serif;">IRCTC</span>
</div>
<body>
<br><br>

    <span style="text-align: center;font-family: Garamond, serif;font-size:35px">Your
    Ticket Has Been Cancelled.</span>
```

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```html
<form method="post" enctype="multipart/form-data" action="{% url 'logout' %}">{%
   csrf_token %}
     <button type="submit"  class="ok" style="width:8%;margin-
   top:20px;">OK</button>
   </form>
</body>
```

9) models.py
```python
from django.db import models

class train_details(models.Model):
    trainName = models.CharField(max_length=200)
    trainNumber = models.CharField(max_length=200)
    fromStnCode = models.CharField(max_length=200)
    toStnCode = models.CharField(max_length=200)
    departureTime = models.CharField(max_length=200)
    arrivalTime = models.CharField(max_length=200)
    duration = models.CharField(max_length=200)
    arrivaldate = models.DateField(null=True)
    date=models.DateField(null=True)
    avlClasses = models.CharField(max_length=200)
    days=models.CharField(max_length=200)
    second_sitting=models.CharField(max_length=200)
    sleeper_class=models.CharField(max_length=200)
    AC_threetier=models.CharField(max_length=200)
    AC_twotier=models.CharField(max_length=200)
    AC_onetier=models.CharField(max_length=200)

class login_details(models.Model):
    username=models.CharField(max_length=200)
    password=models.CharField(max_length=200)
    first_name=models.CharField(max_length=200)
    last_name=models.CharField(max_length=200)
    email=models.EmailField(max_length=200)
    date_of_birth=models.DateTimeField(null=True)
    gender = models.CharField(max_length=10)
    phone_no = models.CharField(max_length=200)
    city=models.CharField(max_length=200)
    state=models.CharField(max_length=200)

class ticket_details(models.Model):
    name=models.CharField(max_length=200)
    phone_no=models.CharField(max_length=200)
    fromStnCode = models.CharField(max_length=200)
    toStnCode = models.CharField(max_length=200)
    date=models.CharField(max_length=200)
    pnr=models.CharField(max_length=200)
    age=models.CharField(max_length=200)
```

10) views.py

```python
from django.shortcuts import render
from django.contrib import messages
from django.utils.crypto import get_random_string


# Create your views here.ss
from django.shortcuts import render,redirect
from train.models import train_details
from train.models import login_details
from train.models import ticket_details
# Create your views here.

def index(request):
    return render(request,"main.html")

def showtrains(request):
    if request.method == "POST":
        from_station = request.POST.get('from_station')
        to_station = request.POST.get("to_station")
        date = request.POST.get("date")

    details = train_details.objects.filter(fromStnCode=
     from_station,toStnCode=to_station,date=date)
    count=len(details)
    print(details,len(details))
    return render(request,"result.html",{'details':details,'count':count})

def login(request):
    if request.method == "POST":
        username = request.POST.get('username')
        password = request.POST.get('password')

    details = login_details.objects.filter(username = username,password=password)
    print(details)
    if details:
        return render(request, "main1.html", {'details': details})
    else:
        print('no user exist')
        messages.error(request, 'Invalid User!!! Please try logging in again with correct
     credentials')
        return redirect("/index/")




def register(request):
    if request.method == "POST":
        username = request.POST.get('username')
        password = request.POST.get('password')
```

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```python
        first_name = request.POST.get('first_name')
        last_name = request.POST.get('last_name')
        email = request.POST.get('email')
        date_of_birth = request.POST.get('date_of_birth')
        gender = request.POST.get('gender')
        phone_no = request.POST.get('phone_no')
        city = request.POST.get('city')
        state = request.POST.get('state')

    details=login_details(username=username,password=password,first_name=first_name,l
ast_name=last_name,email=email,date_of_birth=date_of_birth,gender=gender,phone_n
o=phone_no,city=city,state=state)
        details.save()
        return redirect('/index')

def logout(request):
    return redirect('/index')


def forgot(request):
    return render(request, "For.html")

def change(request):
    if request.method == "POST":
        username = request.POST.get('username')
        phone_no = request.POST.get('phone_no')

    details = login_details.objects.filter(username = username,phone_no = phone_no)
    print(details)
    if details:
        return render(request, "for1.html", {'details': details})
    else:
        print('no user exist')
        messages.error(request, 'Invalid User!!! Please try again with correct credentials')
        return redirect("/forgot/")

def book(request):
    if request.method=="POST":
        username = request.POST.get('username')
        phone_no = request.POST.get('phone_no')
        from_stn = request.POST.get('from_stn')
        to_stn = request.POST.get('to_stn')
        date = request.POST.get('date')
        age = request.POST.get('age')

    pnr = get_random_string(length=6,allowed_chars='1234567890')
```

```python
        details = ticket_details(name
         =username,phone_no=phone_no,fromStnCode=from_stn,toStnCode=to_stn,date=da
         te,pnr=pnr,age=age)
        details.save()
        return render(request,"pnr.html",{'details':details})


def search(request):
    if request.method=="POST":
        pnr = request.POST.get('pnr')

        details=ticket_details.objects.filter(pnr=pnr)
        print(details)
        if details:
            return render(request, "search.html", {'details': details})
        else:
            print('no user exist')
            messages.error(request, 'Invalid PNR Number!! Please try again')
            return redirect("/index")


def cancel(request):
    if request.method=="POST":
        pnr = request.POST.get('pnr')

        details=ticket_details.objects.filter(pnr=pnr)
        details.delete()
            return render(request,'cancel1.html')


11) urls.py

from django.conf import settings
from django.conf.urls.static import static
from django.contrib import admin
from django.urls import path
from train.views import
    index,showtrains,login,register,logout,forgot,change,book,search,cancel
urlpatterns = [
    path('admin/', admin.site.urls),
    path('', index, name='index'),
    path('index/', index , name='index'),
    path('showtrains/', showtrains,name='showtrains'),
    path('login/',login,name="login"),
    path('',register,name="register"),
    path("logout",logout, name="logout"),
    path('forgot/',forgot,name="forgot"),
    path('change/',change,name='change'),
    path('book/',book,name='book'),
    path('search/',search,name='search'),
    path('cancel/',cancel,name='cancel')
     ] + static(settings.MEDIA_URL, document_root=settings.MEDIA_ROOT)
```

12) irctc.css

```css
<style>

    .top{
        background-color: #f5f5f5;
        overflow:hidden;
    }
    .top1{
        margin-top:7px;
        text-align:center;
    }
    .top1 a{
        font-size:12px;
        text-decoration: none;
        margin-left:13px;
        color:gray;
        font-family: Heading,Helvetica,Arial,sans-serif;
    }
    .top2{
        margin-top: 7px;
        margin-right:5%;
        margin-left:10%;
    }
    .top2 a{
        text-decoration:none;
        font-size: 14px;
        margin-left:13px;
        cursor: pointer;
        font-weight: 500;
    }
    .top2 a:hover{
        color: red;
    }
    .block{
        padding:2px 8px;
        padding-right:0px;
        font-size:9px;
        color:blue;
        background-color: white;
        border:solid blue;
        border-radius: 15px;
        font-weight:500;
        text-align: left;
    }
    .block1{
        padding:2px 8px;
        font-size:13px;
        color:white;
        background-color: blue;
        border:solid blue;
```

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```
        border-radius: 15px;
        padding-top:3px;
    }
    .text-block {
      position: absolute;
      margin: 0 auto;
      left: 0%;
      right: 60%;
      text-align: center;
      top: 17%;
      background-color: rgba(255, 255, 255, 0.700);
      font-family: Courier New;
      color: black;
      width: 25%;
      box-shadow: 0px 8px 16px 0px rgba(0,0,0);
      border-radius: 10px;
    }
    .text-block1{
      position: absolute;
      margin: 0 auto;
      left: 0%;
      right: 60%;
      top: 87%;
      background-color: rgba(255, 255, 255, 0.700);
      font-family: Courier New;
      color: black;
      width: 25%;
      box-shadow: 0px 8px 16px 0px rgba(0,0,0);
      padding-top:20px;
      padding-bottom:20px;
      border-radius: 10px;
      text-align: center;
    }
    .opt{
      color:white;
      background-color: rgb(0, 134, 11);
      font-size: 18px;
      cursor: pointer;
      text-decoration: none;
      border-radius: 8px;
      padding:7px 22px;
    }
    .opt:hover,.opt1:hover{
      background-color:rgb(4,4,104);
      color:rgb(255, 255, 255);
      box-shadow:0px 8px 16px 0px rgba(0, 0, 0, 0.8);;
    }
    .opt1{
      padding:7px 22px;
      text-align: center;
```

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```css
      color:white;
      background-color: rgba(0, 134, 11, 0.829);
      font-size: 18px;
      cursor: pointer;
      text-decoration: none;
      border-radius: 8px;
      width:80%;
    }
    .text-block3{
      position: absolute;
      margin: 0 auto;
      text-align: center;
      left:30%;
      right: 0;
      top: 40%;
      font-family: Garamond, serif;
      background-color: rgb(255, 255, 255,0);
      color: rgb(255, 255, 255);
      width: 60%;
      padding-top:8px;
      padding-bottom:8px;
      font-weight:400;
      text-shadow: 2px 2px rgba(0, 0, 0, 0.479);
    }
    input[type=text], input[type=password]
   ,input[type=email],input[type=tel],input[type=date]{
      width: 100%;
      padding: 12px 20px;
      margin: 8px 0;
      display: inline-block;
      border: 1px solid #ccc;
      box-sizing: border-box;
    }
    input[type=text]:focus,
input[type=password]:focus,input[type=email]:focus,input[type=tel]:focus,input[typ
e=date]:focus {
      background-color: #ddd;
      outline: none;
    }
    .login,.register1{
      background-color: #4CAF50;
      color: white;
      padding: 10px 15px;
      border: none;
      cursor: pointer;
      width: 100%;
      border-radius: 8px;
    }
```

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```css
button {
    background-color: #4CAF50;
    color: white;
    padding: 14px 20px;
    margin: 8px 0;
    border: none;
    cursor: pointer;
    width: 100%;
}

.login:hover,.register:hover {
    background-color:rgba(0, 0, 196, 0.815);
    color:rgb(255, 255, 255);
    box-shadow:0px 8px 16px 0px rgba(0, 0, 0, 0.8);
}

.cancelbtn {
    width: auto;
    padding: 10px 18px;
    background-color: #f44336;
    margin-left: 10px;
}
.cancelbtn1 {
    float: right;
    width: 20%;
    background-color: #f44336;
    border-radius: 8px;
    margin-top:30px;
}
.registerbtn {
    float: right;
    width: 20%;
    margin-top: 30px;
    margin-left:30px ;
    border-radius: 8px;
}
.container1 {
    padding: 16px;
}
.container2 {
    padding: 16px;
}
span.psw {
    margin-left:57%;
    padding-top: 16px;

}
```

```css
.modal {
    display: none;
    position: fixed;
    z-index: 1;
    left: 30%;
    top: 10%;
    width: 50%;
    height: 100%;
    overflow: auto;
    padding-top: 60px;
    border-radius: 10px;
}
.modal2 {
    display: none;
    position: fixed;
    z-index: 1;
    left: 0%;
    top: -3%;
    width: 100%;
    height: 100%;
    padding-top: 60px;
    border-radius: 10px;
}
.c1{
    width:32.769%;
    height:50%;
    float:left;
}
.modal-content {
    background-color: #fefefe;
    margin: 5% auto 15% auto;
    border: 1px solid #888;
    width: 80%;
    border-radius: 15px;
}
.modal-content2 {
    background-color: #fefefe;
    margin: 5% auto 15% auto;
    border: 1px solid #888;
    width: 80%;
    border-radius: 15px;
}
.close {
    position: absolute;
    right: 35px;
    top: 15px;
    font-size: 40px;
    font-weight: bold;
    color: #f1f1f1;
}
```

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```css
.close:hover,.close:focus {
  color: red;
  cursor: pointer;
}
.clearfix::after {
  content: "";
  clear: both;
  display: table;
}
.animate {
  -webkit-animation: animatezoom 0.6s;
  animation: animatezoom 0.6s
}
.ok{
  background-color: #4CAF50;
  color: white;
  border: none;
  cursor: pointer;
  width: 100%;
  border-radius: 8px;
  padding:10px 15px;
}
.forgot{
  position: absolute;
  margin: 0 auto;
  left: 0%;
  right: 0%;
  text-align: center;
  top: 19%;
  background-color: #f5f5f5;
  color: black;
  width: 35%;
  height:50%;
  box-shadow: 0px 8px 16px 0px rgba(0,0,0);
  border-radius: 10px;
}
@-webkit-keyframes animatezoom {
  from {-webkit-transform: scale(0)}
  to {-webkit-transform: scale(1)}
  }

  @keyframes animatezoom {
  from {transform: scale(0)}
  to {transform: scale(1)}
}
@media screen and (max-width: 300px) {
  span.psw {
    display: block;
    float: none;
```

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```
            }
         .cancelbtn {
            width: 100%;
         }
         .registerbtn {
            width: 100%;
         }
      }
   </style>
```

6. TESTING AND VALIDATION

6.1 Testing Types
1) The testing that we have done in this project is Manual Testing.
2) We have nearly executed 25-30 test cases on various aspects.

6.2 Test Cases
1) Login
   a) Input: If Username and Password Are Correct.
      Output:

   b) Input: If Username and Password Are Wrong.
      Output:
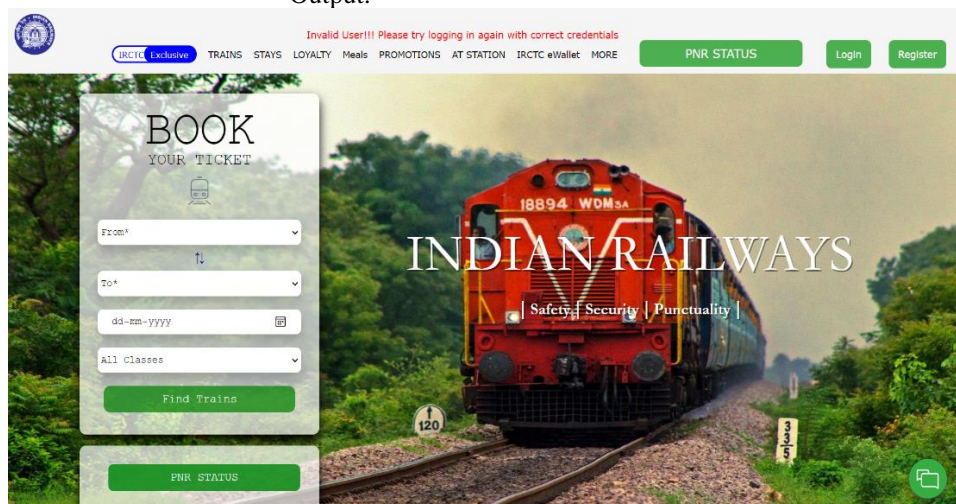
2) Train Search
    a) Input: If Source, Destination and Date matches with Database.
       Output:

    b) Input: If Source, Destination and Date doesn't matches with Database.
       Output:

3) PNR Status
    a) Input: If the PNR Number matches with the Database
       Output:

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b) Input: If the PNR Number doesn't matches with the Database.
Output:

6.3 Project Screenshots
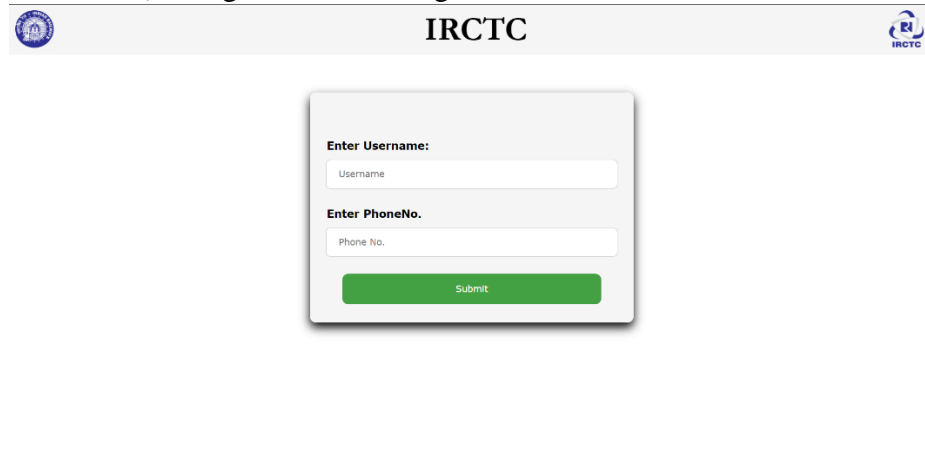
1) Home Page

2) Login Page

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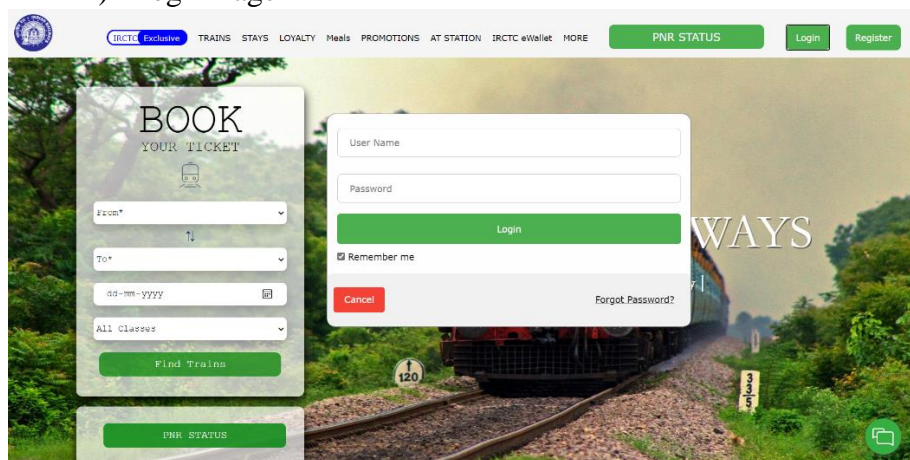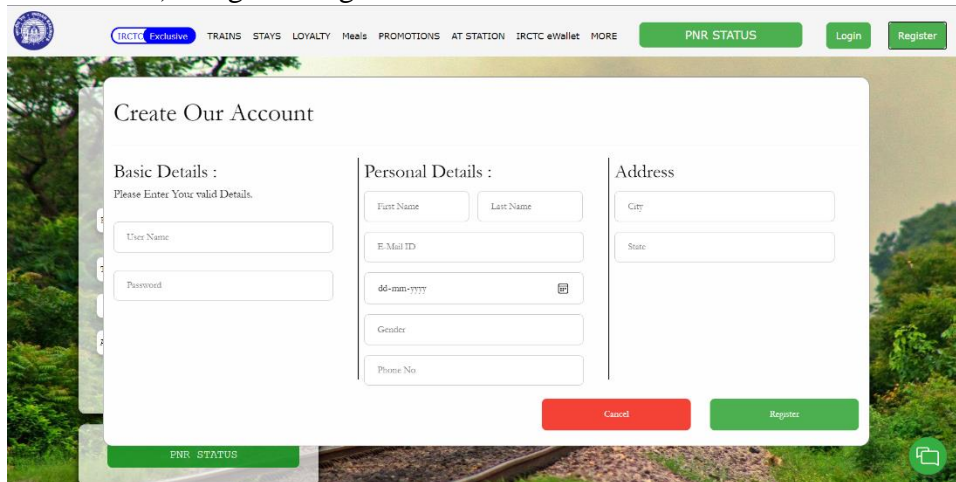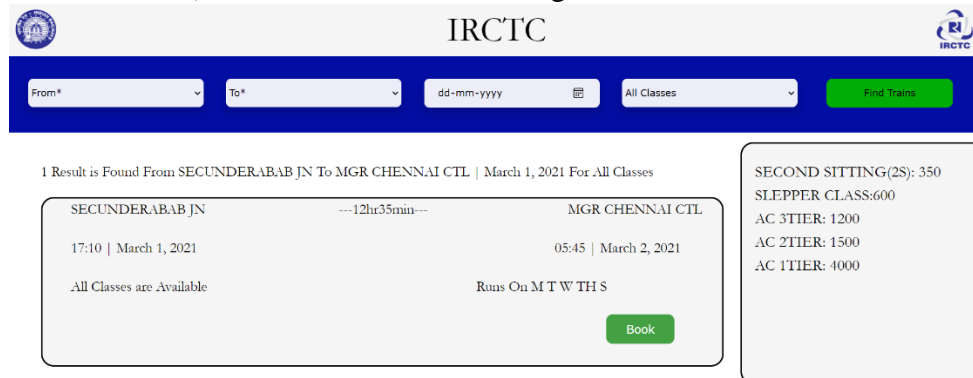
3) Forgot Password Page

4) Register Page

5) Train Searched Result Page

6) Train Ticket Booking Page

7) Ticket PNR Number

8) PNR search Page

9) PNR Details

IRCTC

Details for PNR Number : 316404

Name : abhilash
Phone No. : 963852741
From Station : SECUNDERABAB JN
To Station : MGR CHENNAI CTL
Date : March 1, 2021

OK

To Cancel Your Ticket Please Click On Cancel -> Cancel

10) Ticket Cancellation

IRCTC

Details for PNR Number : 316404

Name : abhilash

Please Provide Your PNR Number Once Again!

316404

cancel

To Cancel Your Ticket Please Click On Cancel -> Cancel

11) After Ticket Cancellation

IRCTC

Your Ticket Has Been Cancelled.

OK

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12) Databases
i) Users Details

ii) Train Details

iii) Train Ticket Booked Deatails

54

6.4 Result

i)   After Booking Ticket

IRCTC

Your Tickets Have Been Booked
Your PNR Number : 316404

OK

ii)   After Ticket Cancellation

IRCTC

Your Ticket Has Been Cancelled.

OK
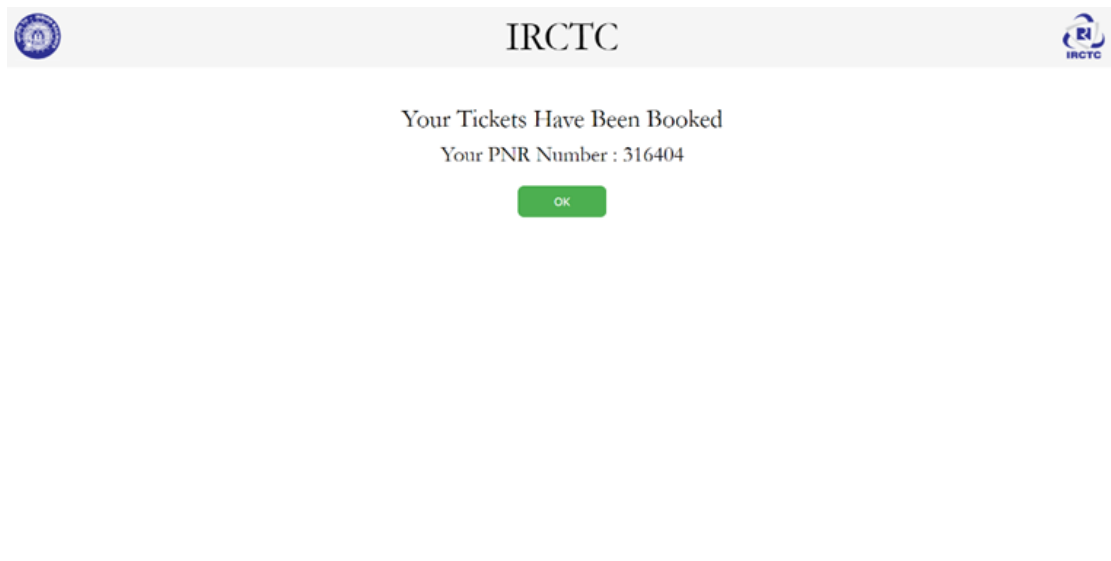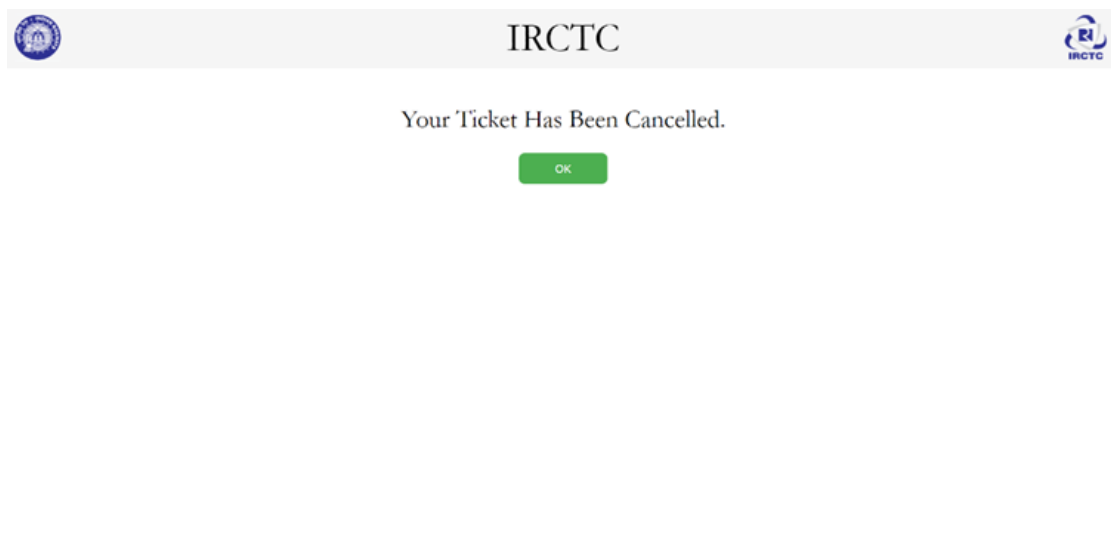
7. CONCLUSION AND FUTURE ENHANCEMENTS

This Indian Railway Reservation System will manage the User's information by which User can login and Book Tickets. The system will incorporate all features of Reservation system. There is a DATABASE which is maintained by the Admin in which all the User with complete information is stored.

In this user has to register first with giving information and it will be saved in the DATABASE and when he/she want to Book or Cancel the train tickets he/she has to login by their Username and Password and can Book Or Cancel Train Ticket. The Train details are stored in the database and showed to the user's . It decreases the cost and time of booking ticket process. It is very easy to use and it is very less time consuming.

8. REFERENCES

HTML & CSS: https://www.w3schools.com/
Django: https://www.djangoproject.com/