Project 2 - FlyAway (An Airline Booking Portal)

Project and developer details

The Project is developed by Rishabh Dixit

The all code of project is hosted on GitHub: - https://github.com/dixitrishabh/Phase2Project_FlyAway

Sprints planned and the tasks achieved in them

Creating a document and file structure of the project.

Firstly, I create a Git repo and do Git Clone.

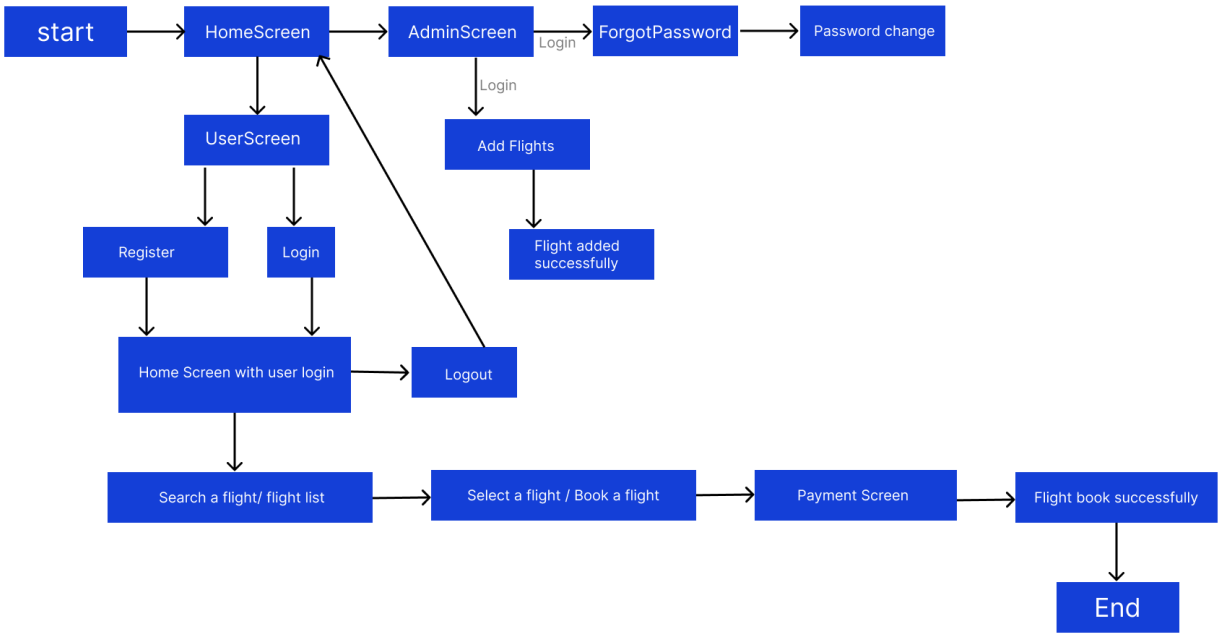
Then create a Dynamic web project which contains java files, jsp files and servlets file.

After completing all code, I have performed different test case on this project.

At last, I push all correct to GitHub.

Algorithms and flowcharts of the application Core concepts used in the project

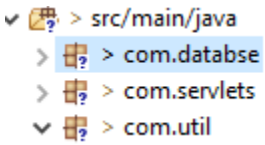
HashMap, Exception Handling, Searching, Servlets, Collections Frameworks, MySQL Connector, JSP, HTML, CSS



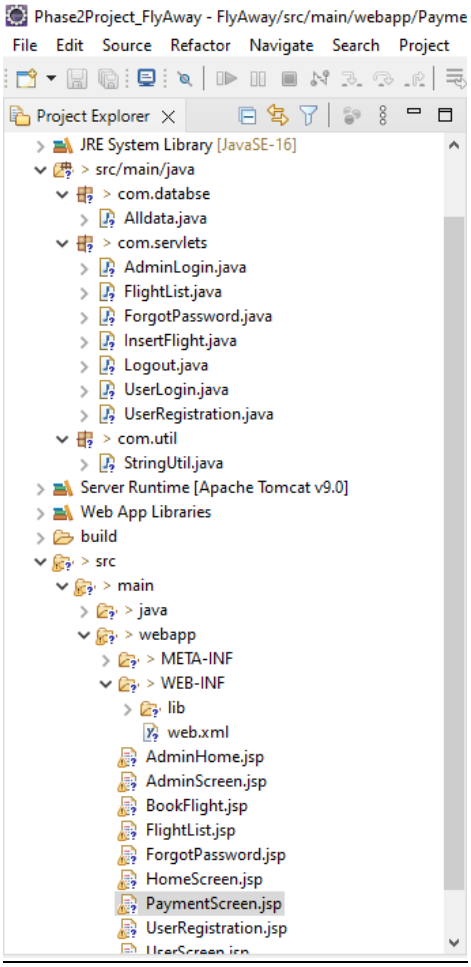
Project Details: -

Create a Dynamic web project in Eclipse

Creating packages like



Create a structure



Some Important Code Snippets –

Creating a connection with database and search available flights

Alldata.java

```java
package com.databse;

import java.sql.Connection;

public class Alldata {
    public Connection con=null;
    public Statement st=null;

    public Alldata() throws ClassNotFoundException, SQLException{
        Class.forName("com.mysql.cj.jdbc.Driver");
        con=DriverManager.getConnection("jdbc:mysql://localhost:3306/flyaway","root","DEMO");
        System.out.println("connected with flyaway database");
        st=con.createStatement();
    }

public List<String[]> getAvailableFlights(String f, String t, String d) {

        List<String[]> flights=new ArrayList<>();
        String query="SELECT * FROM flyaway.flights where fromf='"+f+"' and tof='"+t+"' and datef='"+d+'
        try {
            ResultSet rs=st.executeQuery(query);

            if(rs.next()) {
                String[] flight=new String[3];
                flight[0]=rs.getString("name");
                flight[1]=rs.getString("timef");
                flight[2]=rs.getString("price");
                flights.add(flight);
                return flights;
            }


        } catch (SQLException e) {
            e.printStackTrace();
        }

        return null;
    }

```

Insert a user and check user

```java
public HashMap<String, String> checkUser(String email, String password) {

    HashMap<String,String> user=null;
    String query="select * from user where email='"+email+"' and password='"+password+"'";
    try {
        ResultSet rs=st.executeQuery(query);
        if(rs.next()) {
            user=new HashMap<>();
            user.put("name", rs.getString("name"));
            user.put("email",rs.getString("email"));
            user.put("phno",rs.getString("phno"));
            user.put("adno",rs.getString("adno"));
        }
        return user;
    } catch (SQLException e) {
        e.printStackTrace();
    }

    return user;
}

public boolean insertUser(HashMap<String, String> user) {

    String query="INSERT INTO user (email, password, name, phno, adno) values('"+user.get("email")+"','"+user.get(

    try {
        st.execute(query);
        return true;
    } catch (SQLException e) {
        e.printStackTrace();
    }
    return false;
}
```

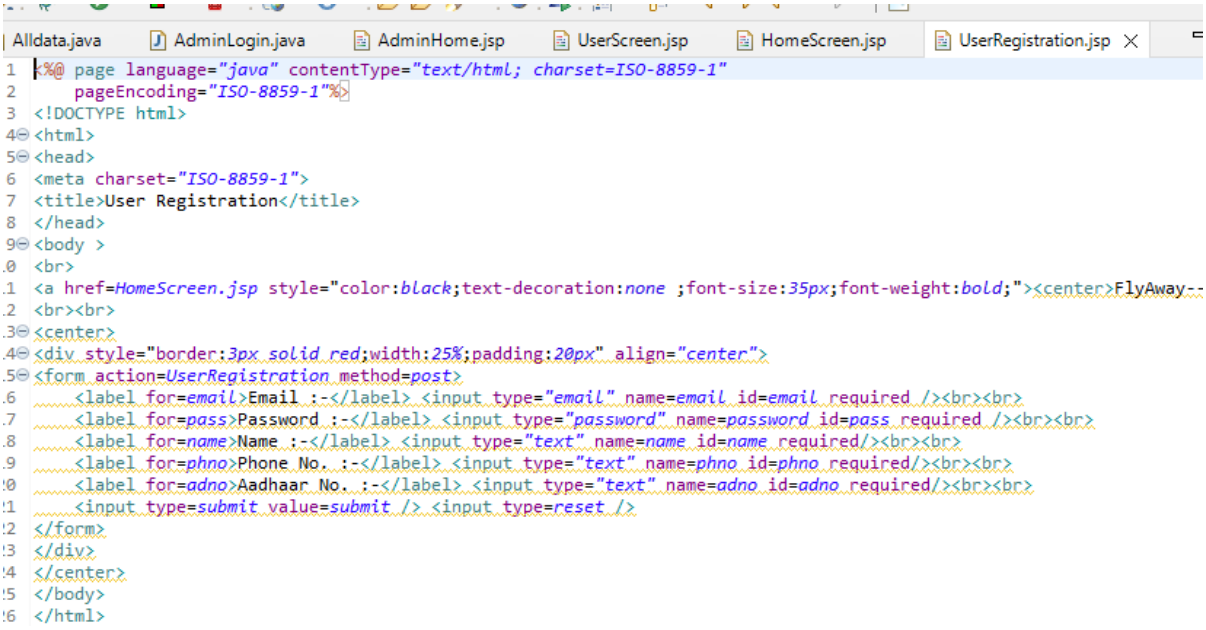
Check admin ,change password and insert flight

```
public boolean checkAdmin(String email, String password) {

    try {
        ResultSet rs=st.executeQuery("select * from admin where email='"+email+"' and password='"+password+"'");
        if(rs.next())
            return true;
    } catch (SQLException e) {
        e.printStackTrace();
    }
    return false;
}

public boolean changeAdminPassword(String email, String password) {

    try {
        ResultSet rs=st.executeQuery("select * from admin where email='"+email+"'");
        if(!rs.next()) {
            return false;
        }
        st.execute("update admin set password='"+password+"' where email='"+email+"'");
        return true;
    } catch (SQLException e) {
        e.printStackTrace();
    }
    return false;
}


public boolean insertFlight(HashMap<String, String> flight) throws SQLException {
    //PreparedStatement stm=con.prepareStatement("INSERT INTO 'flyaway.flights' ('name', 'from', 'to', 'date', 'tim
    //String sql="INSERT INTO flights ('name','from','to','date','time','price') values('"+flight.get("name")+"','"
    String query1 = "INSERT INTO flights (name, fromf, tof, datef, timef, price) VALUES" + " ('"
            + StringUtil.fixSqlFieldValue(flight.get("name")) + "'," + " '" + StringUtil.fixSqlFieldValue(flight.ge
            + StringUtil.fixSqlFieldValue(flight.get("to")) + "'," + " '" + StringUtil.fixSqlFieldValue(flight.get(
            + StringUtil.fixSqlFieldValue(flight.get("time")) + "'," + " '" + StringUtil.fixSqlFieldValue(flight.ge

    //String sql="INSERT INTO `flyaway`.`flights` (`name`, `fromf`, `tof`, `datef`, `timef`, `price`) VALUES ('indi
    System.out.println(flight.get("date"));
```

Home screen Code

```
<head>
<meta charset="ISO-8859-1">
<title>FlyAway (An Airline Booking Portal).</title>
</head>
<body >
<center><h1>FlyAway--(An Airline Booking Portal)</h1></center>

<div align="right">
<a href="AdminScreen.jsp">Admin Login</a>
</div>

<%
    @SuppressWarnings("unchecked")
    HashMap<String,String> user=(HashMap<String,String>)session.getAttribute("user");
    if(user!=null){
%>
<p>Welcome <%=user.get("name") %></p>
<a href="Logout">Logout</a>
<%
    }else{
%>
<a href=UserScreen.jsp>User Login</a>
<%
    }
%>
<br><br>
<center>
<div style="border:5px solid red;width:35%;padding:25px" align="center">
<form action=FlightList method=post>
    <label for=from>From :-</label> <input type=text name=from id=from required/><br><br>
    <label for=to>To :-</label> <input type=text name=to id=to required/><br><br>
    <label for=departure>Departure :-</label> <input type=date name=departure id=departure required/><br><br>
    <label for=travellers>Travellers :-</label> <input type=number name=travellers id=travellers required/><br><br>
    <input type=submit value=Search /> <input type=reset />
</form>
</div>
</center>
</body>
</html>
```

User Registration Code



```
Alldata.java  AdminLogin.java  AdminHome.jsp  UserScreen.jsp  HomeScreen.jsp  UserRegistration.jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>User Registration</title>
</head>
<body >
<br>
<a href=HomeScreen.jsp style="color:black;text-decoration:none ;font-size:35px;font-weight:bold;"><center>FlyAway--
<br><br>
<center>
<div style="border:3px solid red;width:25%;padding:20px" align="center">
<form action=UserRegistration method=post>
    <label for=email>Email :-</label> <input type="email" name=email id=email required /><br><br>
    <label for=pass>Password :-</label> <input type="password" name=password id=pass required /><br><br>
    <label for=name>Name :-</label> <input type="text" name=name id=name required/><br><br>
    <label for=phno>Phone No. :-</label> <input type="text" name=phno id=phno required/><br><br>
    <label for=adno>Aadhaar No. :-</label> <input type="text" name=adno id=adno required/><br><br>
    <input type=submit value=submit /> <input type=reset />
</form>
</div>
</center>
</body>
</html>
```

Payment Screen Code

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<%@ page import="java.util.*" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Payment Screen</title>
</head>
<body>

<br>
<a href=HomeScreen.jsp style="color:black;text-decoration:none ;font-size:35px;font-weight:bold;"><center>F
<br><br>



<center>
<div style="border:5px solid Green;width:35%;padding:25px" align="center">
<form>
    <label CardHolderName>Card Holder Name :-</label> <input type=text required/><br><br>
    <label CardNumber>Card Number :-</label> <input type=number required /><br><br>
    <label >Expriation Month</label> <input type=number required/><br><br>
    <label >Expriation Year</label> <input type=number required/><br><br>
    <label >CVV Number</label> <input type=password required/><br><br>
    <a href=BookFlight.jsp><input type=button value=Pay Now required/> </a>
    <input type=reset />
    </form>
</div>
</center>

</body>
</html>
```

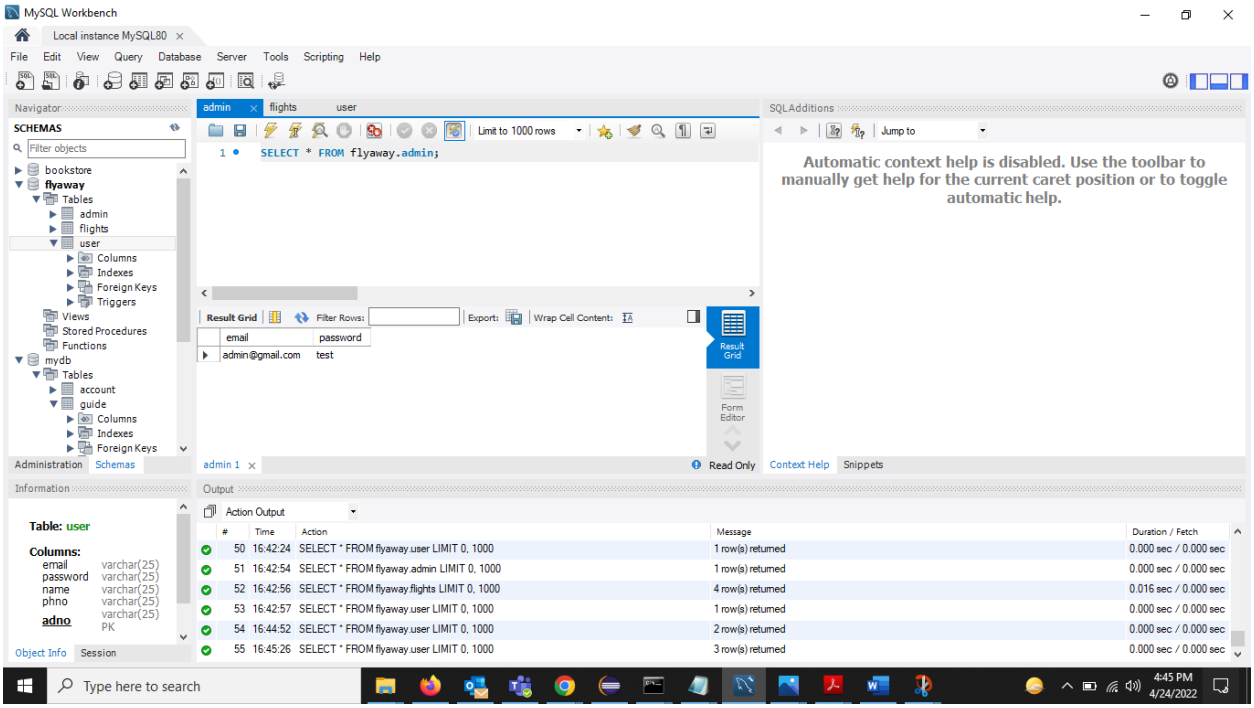
Flight List Code

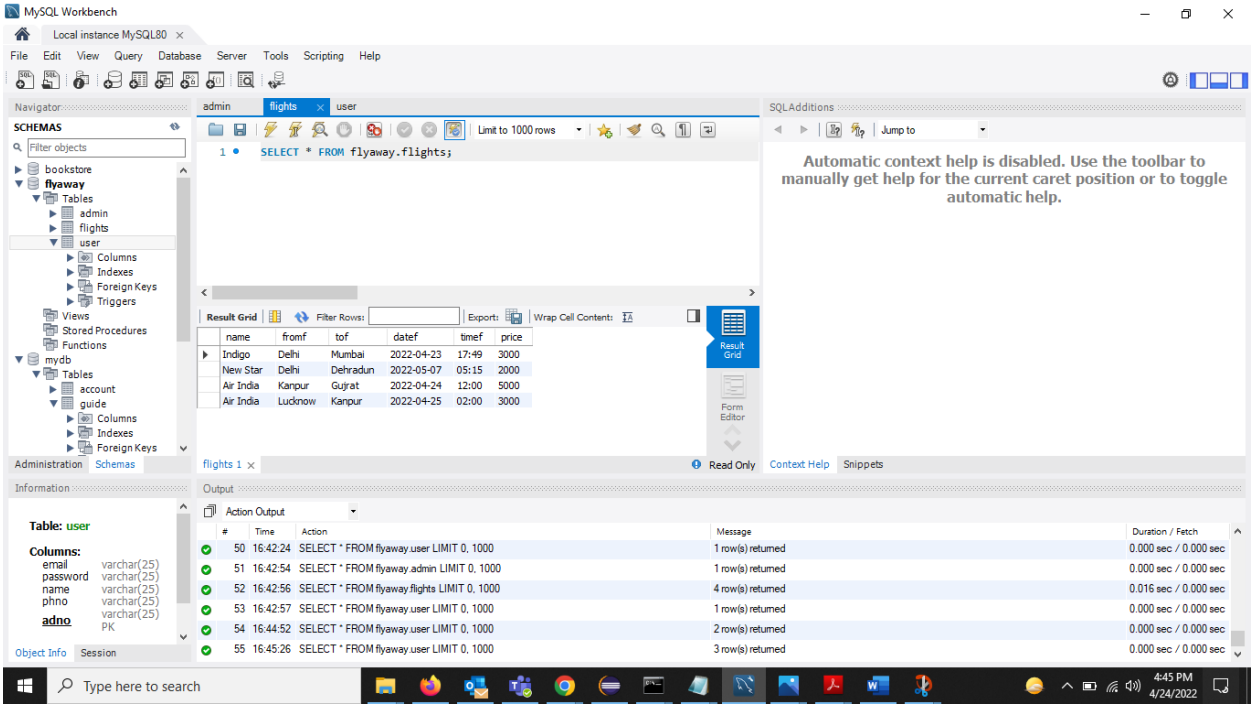
```
<title>Flight List</title>
</head>
<body >
<br>
<a href=HomeScreen.jsp style="color:black;text-decoration:none;font-size:35px;font-weight:bold;">
<br><br>
<%
    @SuppressWarnings("unchecked")
    List<String[]> flights=(List<String[]>)session.getAttribute("flights");
    if(flights!=null){
%>

<h1>Available Flights in FlyAway</h1>

<center>
<table border="3">
<tr>
    <th>Name</th>
    <th>Time</th>
    <th>Price</th>
</tr>

<%
    for(String[] flight:flights){
%>

<tr>
<td><%=flight[0]%></td>
<td><%=flight[1]%></td>
<td><%=flight[2]%></td>
</tr>
</table>
</center>
<center><a href=PaymentScreen.jsp>Pay Now</a> </center>
<%
    }
%>
```

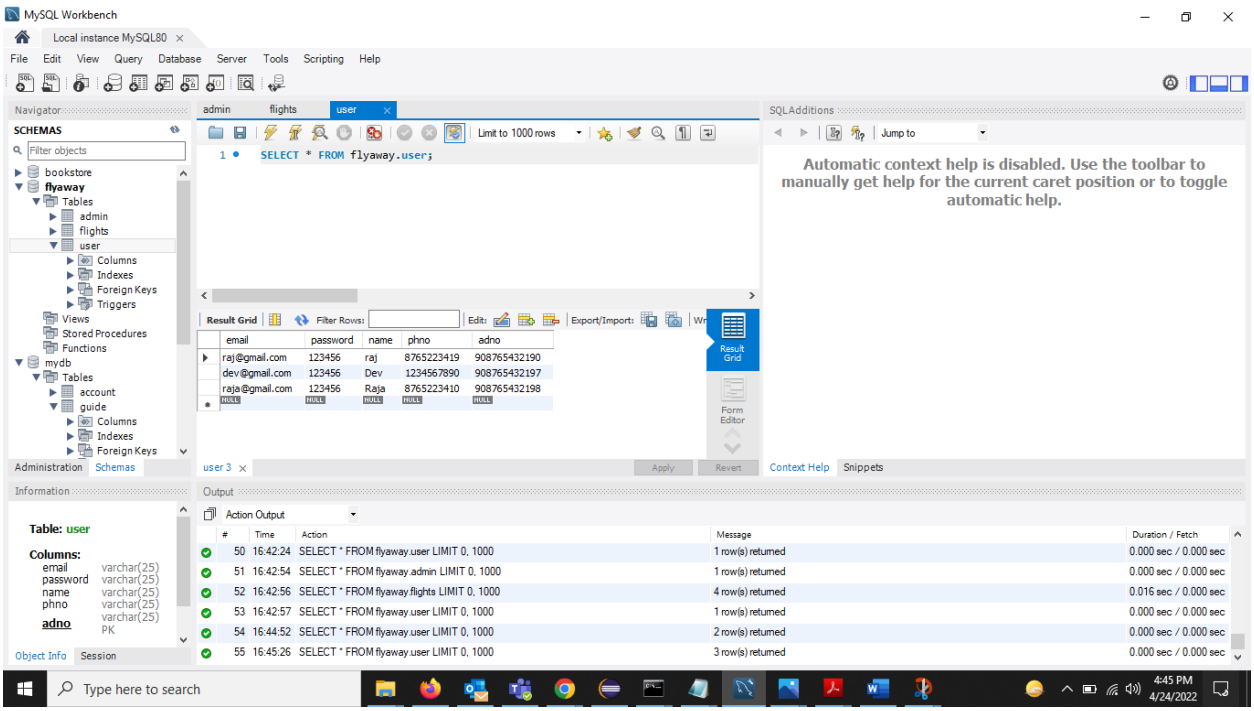
Logout code

```
package com.servlets;

import javax.servlet.annotation.WebServlet;


@WebServlet("/Logout")
public class Logout extends HttpServlet {
    private static final long serialVersionUID = 1L;
protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletEx

        HttpSession session=request.getSession();
        session.setAttribute("user", null);
        response.sendRedirect("HomeScreen.jsp");
    }

}
```

Flyaway DB tables







GitHub Repo link -: https://github.com/dixitrishabh/Phase2Project_FlyAway

Your conclusion on enhancing the application and defining the USPs (Unique Selling Points):

A website with simple user interface and user experience.

Have admin portal also from which admin can add more flights for users.

The website also contains user portal where user can search & book flight for travel.

Some USPs –

The application works very smoothly while taking inputs from the user.

The user can login and register easily.

The user can search flights for travel.

The website contains a dummy payment screen for payment.

The website contains admin portal where admin can login and can add more flights.

The website also contains some validations in login, register form etc.