**Phase 2: Become a Back End Expert - Project FlyAway**

**Developer Details:**

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Date created: 01-01-2023

Program Name: FlyAway

GitHub Repository:

https://github.com/Adzi17/FlyAway.git

**Program Background :**

FlyAway is a ticket-booking portal that lets people book flights on their website.

**Program Features:**

● A search form in the homepage to allow entry of travel details, like the date of travel, source, destination, and the number of persons.

● Based on the travel details entered, it will show the available flights with their ticket prices.

● Once a person selects a flight to book, they will be taken to a register page where they must fill in their personal details. In the next page, they are shown the flight details of the flight that they are booking, and the payment is done via a dummy payment gateway. On completion of the payment, they are shown a confirmation page with the details of the booking.

For the above features to work, there will be an admin backend with the following features:

● An admin login page where the admin can change the password after login, if he wishes

● A master list of places for source and destination

● A master list of airlines

● A list of flights where each flight has a source, destination, airline, and ticket price

**Tools used for development:**

1. Eclipse IDE
2. MySQL Relation Database Management System
3. Apache Tom-Cat 10 server
4. Java Servlets
5. Java Server Pages (JSP)
6. HTML
7. Apache Maven
8. JDBC Java Database Connectivity

**Sprint Table:**

|  |  |  |  |
| --- | --- | --- | --- |
| SPRINT | WORK DONE | TIME PERIOD | RESULT |
| 1 | Created Databases in MySQL | 02/01/22 to 03/01/22 | Done ✓ |
| 2 | Designed HTML pages | 03/01/22 to 06/01/22 | Done ✓ |
| 3 | Server-side coding | 06/01/22 to 08/01/22 | Done ✓ |
| 4 | Testing | 08/01/22 to 10/01/22 | Done ✓ |

**DATABASES:**

1.Airlines



2.Flights



3.Places



4.Login



**Source Code:**

**1.Homepage**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>FlyAway</title>

</head>

<body>

<h1>FlyAway</h1>

<form action=*"search.jsp"* method=*"post"*>

Travel Date <input type=*"date"* id=*"traveldate"* name=*"traveldate"*

placeholder=*"dd/mm/yyyy"*> </br> </br> <label for=*"source"*>Source</label>

<input list=*"source"* id=*"date"* name=*"source"* />

<datalist id=*"source"*>

<option value=*"Hyderabad"*>

<option value=*"Delhi"*>

<option value=*"Kolkata"*>

<option value=*"Mumbai"*>

<option value=*"Bangalore"*>

</datalist>

</br> </br> <label for=*"destination"*>Destination </label> <input

list=*"destination"* id=*"date"* name=*"destination"* />

<datalist id=*"destination"*>

<option value=*"Hyderabad"*>

<option value=*"Delhi"*>

<option value=*"Kolkata"*>

<option value=*"Mumbai"*>

<option value=*"Bangalore"*>

</datalist>

</br> </br> No of Persons <input type=*"number"* name=*"no of persons"*></br>

</br> <input type=*"submit"* value=*"show available flights"*></br>

</br>

</form>

<form action=*"login.jsp"* method=*"post"*>

<input type=*"submit"* value=*"Admin Login"*>

</form>

</body>

</html>

**2.Login page**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>LOGIN</title>

</head>

<body>

<form action=*"validate.jsp"* method=*"post"*>

<h1>Admin Login</h1>

USERNAME <input type=*"text"* name=*"username"*></br>

</br> PASSWORD <input type=*"password"* name=*"password"*></br>

</br> <input type=*"submit"* value=*"login"*>

</form>

</body>

</html>

**3.Login Validation**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

**try** {

String username = request.getParameter("username");

String password = request.getParameter("password");

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

Connection con = DriverManager.getConnection(url,user,pass);

PreparedStatement st = con

.prepareStatement("select username,password from login where username=? and password=?");

st.setString(1, username);

st.setString(2, password);

ResultSet rs = st.executeQuery();

**if** (rs.next()) {

response.sendRedirect("adminhome.jsp");

} **else** {

out.println("<h1><p style=color:red>Invalid credentials!</P></h1>");

}

} **catch** (Exception e) {

out.println(e);

}

%>

**4.Admin Homepage**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>Insert title here</title>

</head>

<body>

<form action=*"placeslist.jsp"* method=*"post"*>

<h2>

<input type=*"submit"* value=*"Places List"*>

</h2>

</form>

<form action=*"airlineslist.jsp"* method=*"post"*>

<h2>

<input type=*"submit"* value=*"Airlines List"*>

</h2>

</form>

<form action=*"flightslist.jsp"* method=*"post"*>

<h2>

<input type=*"submit"* value=*"Flights List"*>

</h2>

</form>

<form action=*"passdata.jsp"* method=*"post"*>

<h2>

<input type=*"submit"* value=*"Change Password"*>

</h2>

</form>

</body>

</html>

**5.Admin get all Airlines list**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

String sql = "select \* from airlines order by name";

Connection con = DriverManager.getConnection(url, user, pass);

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(sql);

%>

<table border=*"1"*>

<tr>

<th>code</th>

<th>name</th>

</tr>

<%

**while** (rs.next()) {

%>

<tr>

<td>

<%=

rs.getString(1)

%>

</td>

<td>

<%=

rs.getString(2)

%>

</td>

</tr>

<%

}

%>

</table>

**6.Admin get all Places list**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

String sql = "select \* from places order by name";

Connection con = DriverManager.getConnection(url, user, pass);

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(sql);

%>

<table border=*"1"*>

<tr>

<th>code</th>

<th>name</th>

</tr>

<%

**while** (rs.next()) {

%>

<tr>

<td>

<%=

rs.getString(1)

%>

</td>

<td>

<%=

rs.getString(2)

%>

</td>

</tr>

<%

}

%>

</table>

**7.Admin get all Flights list**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

String sql = "select \* from flights order by name";

Connection con = DriverManager.getConnection(url, user, pass);

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(sql);

%>

<table border=*"1"*>

<tr>

<th>name</th>

<th>airline</th>

<th>way</th>

<th>price</th>

</tr>

<%

**while** (rs.next()) {

%>

<tr>

<td>

<%=

rs.getString(1)

%>

</td>

<td>

<%=

rs.getString(2)

%>

</td>

<td>

<%=

rs.getString(3)

%>

</td>

<td>

<%=

rs.getString(4)

%>

</td>

</tr>

<%

}

%>

</table>

**8.Admin change password**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

String PASS = request.getParameter("new password");

String oldpass = request.getParameter("existing password");

String OLDPASS = "";

String confirmPassword = request.getParameter("confirm password");

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

String sql1 = "select password from login where password='" + oldpass + "'";

String sql2 = "update login set password=" + confirmPassword + " where username='manish'";

Connection con = DriverManager.getConnection(url, user, pass);

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(sql1);

**if** (rs.next()) {

OLDPASS = rs.getString("password");

}

**if** (PASS.equals(confirmPassword)) {

**if** (oldpass.equals(OLDPASS)) {

st = con.createStatement();

**int** i = st.executeUpdate(sql2);

out.println("password updated");

RequestDispatcher rd = request.getRequestDispatcher("/passdata.jsp");

rd.include(request, response);

} **else** {

out.println("old password doesn't match");

RequestDispatcher rd = request.getRequestDispatcher("/passdata.jsp");

rd.include(request, response);

}

} **else** {

out.println("passwords dont match");

RequestDispatcher rd = request.getRequestDispatcher("/passdata.jsp");

rd.include(request, response);

}

%>

**9.Admin change password page**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>Insert title here</title>

</head>

<body>

<form action=*"changepassword.jsp"* method=*"post"*>

Enter existing password <input type=*"password"* name=*"existing password"*></br></br>

Enter new password <input type=*"password"* name=*"new password"*></br></br>

Confirm password <input type=*"password"* name=*"confirm password"*></br></br>

<input type=*"submit"* value=*"change"*>

</form>

</body>

</html>

**10.Payment Logic for Passenger Count**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%

**int** count=Integer.parseInt(request.getParameter("no of persons"));

out.println("<h1>"+"Payment of amount " + 5000\*count + "/- is successful" +"</h1>");

RequestDispatcher rd = request.getRequestDispatcher("/showdetails.jsp");

rd.include(request, response);

%>

**11.Search Flights**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

String SOURCE = request.getParameter("source");

String DESTINATION = request.getParameter("destination");

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

String sql = "select \* from flights where source='" + SOURCE + "'and destination='" + DESTINATION + "'";

Connection con = DriverManager.getConnection(url, user, pass);

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(sql);

%>

<table border=*"1"*>

<tr>

<th>name</th>

<th>airline</th>

<th>way</th>

<th>price</th>

<th>source</th>

<th>destination</th>

</tr>

<%

**while** (rs.next()) {

%>

<tr>

<td><%=rs.getString(1)%></td>

<td><%=rs.getString(2)%></td>

<td><%=rs.getString(3)%></td>

<td><%=rs.getString(4)%></td>

<td><%=rs.getString(5)%></td>

<td><%=rs.getString(6)%></td>

</tr>

<%

}

%>

</table>

</br>

<form action=*"customerdetails.jsp"* method=*"post"*>

No of Persons <input type=*"number"* name=*"no of persons"*></br>

</br> <input type=*"submit"* value=*"Book Ticket"*>

</form>

**12.Payment Page**

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@page import=*"java.sql.\*"*%>

<%

String SOURCE = request.getParameter("source");

String DESTINATION = request.getParameter("destination");

String time = "10:45 PM";

Class.forName("com.mysql.jdbc.Driver");

String url = "jdbc:mysql://localhost:3306/flyaway";

String user = "root";

String pass = "2020";

String sql = "select \* from flights where source='" + SOURCE + "'and destination='" + DESTINATION + "'";

Connection con = DriverManager.getConnection(url, user, pass);

Statement st = con.createStatement();

ResultSet rs = st.executeQuery(sql);

%>

<h1>Your Flight Details :</h1>

<table border=*"1"*>

<tr>

<th>Flight name</th>

<th>airline</th>

<th>way</th>

<th>price</th>

<th>source</th>

<th>destination</th>

<th>Time</th>

</tr>

<%

**while** (rs.next()) {

%>

<tr>

<td><%=rs.getString(1)%></td>

<td><%=rs.getString(2)%></td>

<td><%=rs.getString(3)%></td>

<td><%=rs.getString(4) + "/-"%></td>

<td><%=rs.getString(5)%></td>

<td><%=rs.getString(6)%></td>

<td><%=time%></td>

</tr>

<%

}

%>

</table>

</br>

<form action=*"payment.jsp"* method=*"post"*>

No of Persons <input type=*"number"* name=*"no of persons"*></br> </br>

<h1>Payment Details :</h1>

Debit card Number : <input type=*"number"*></br>

</br> Expiry Date : <input type=*"text"*></br>

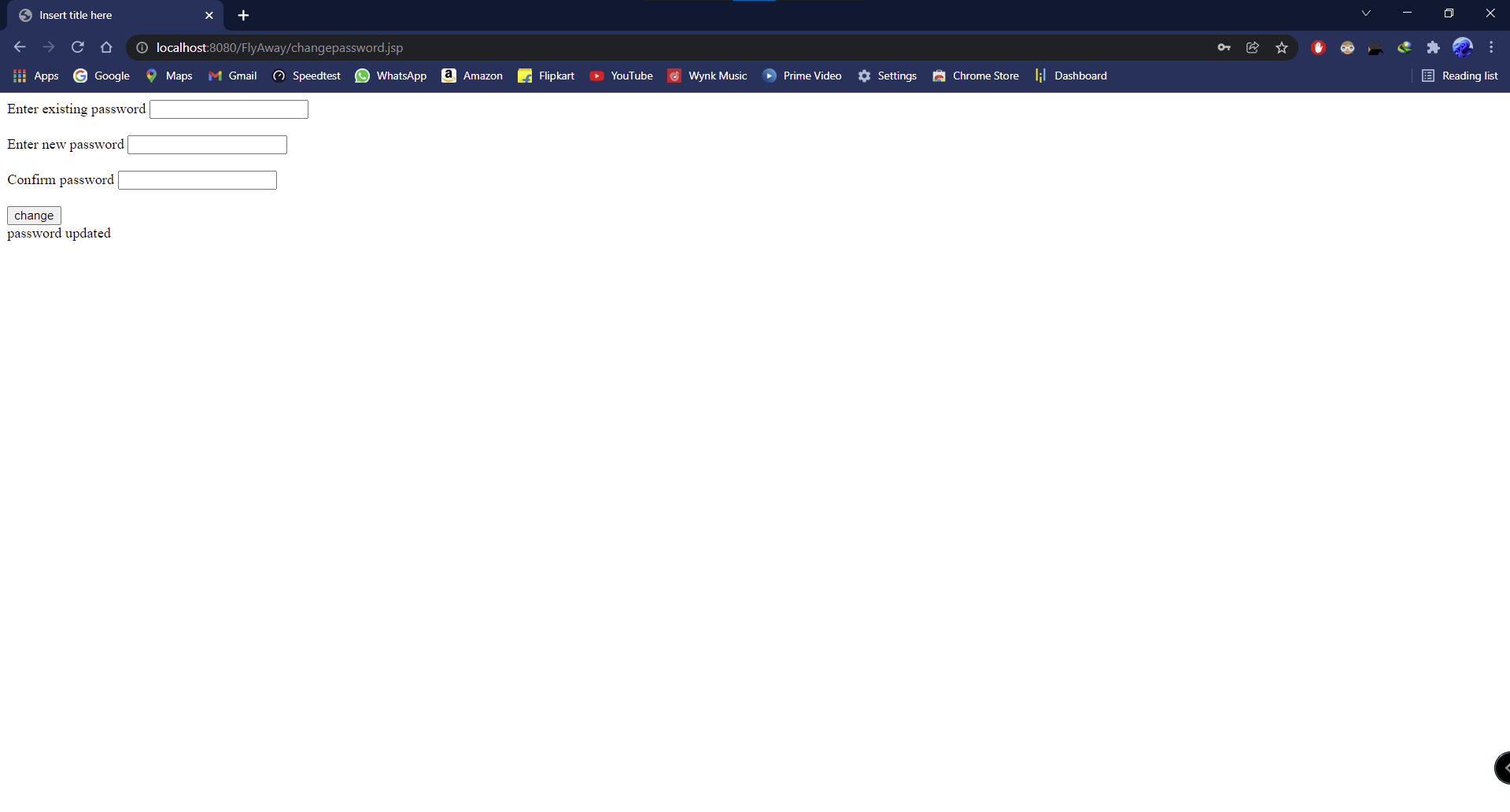
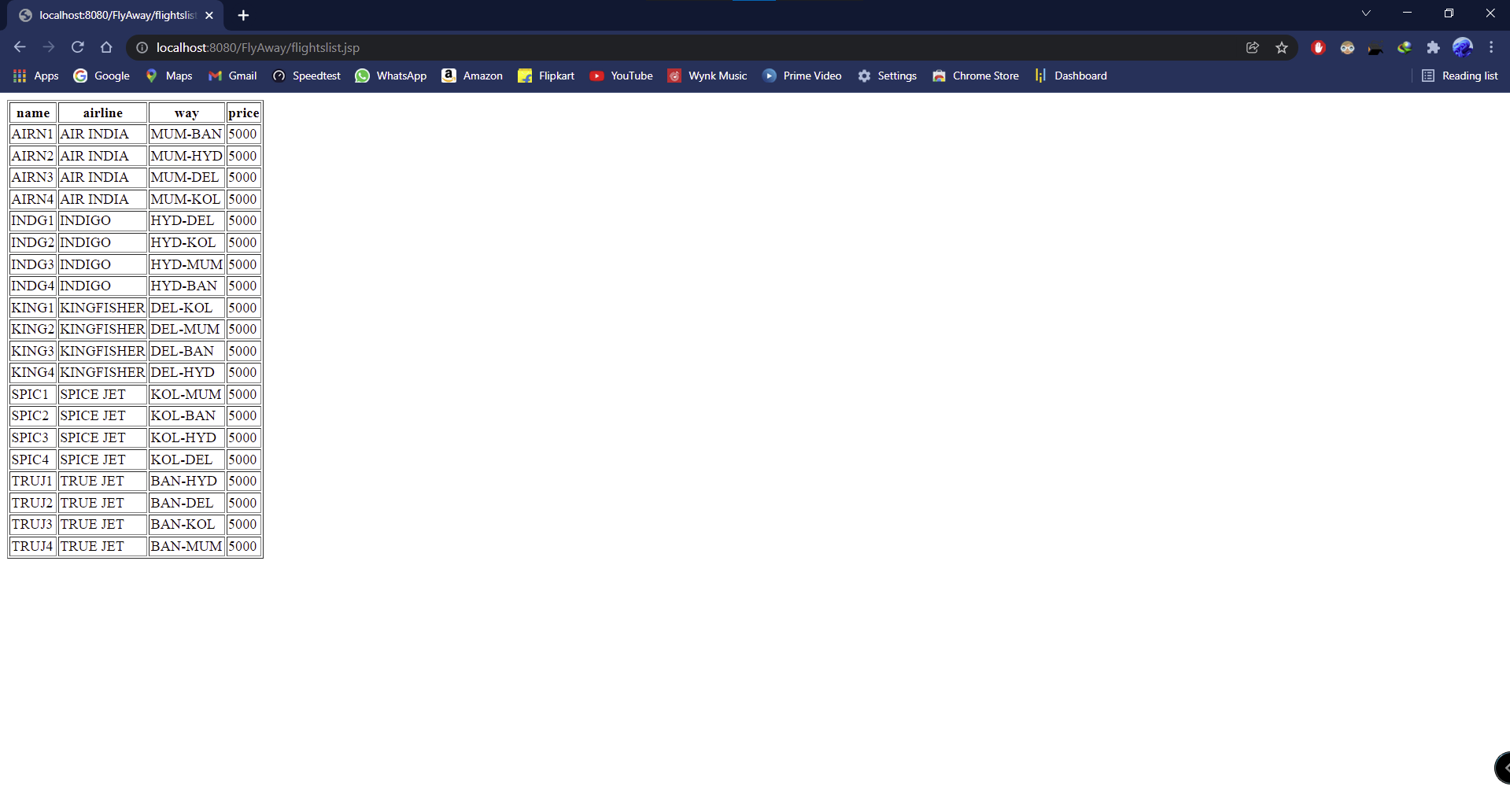
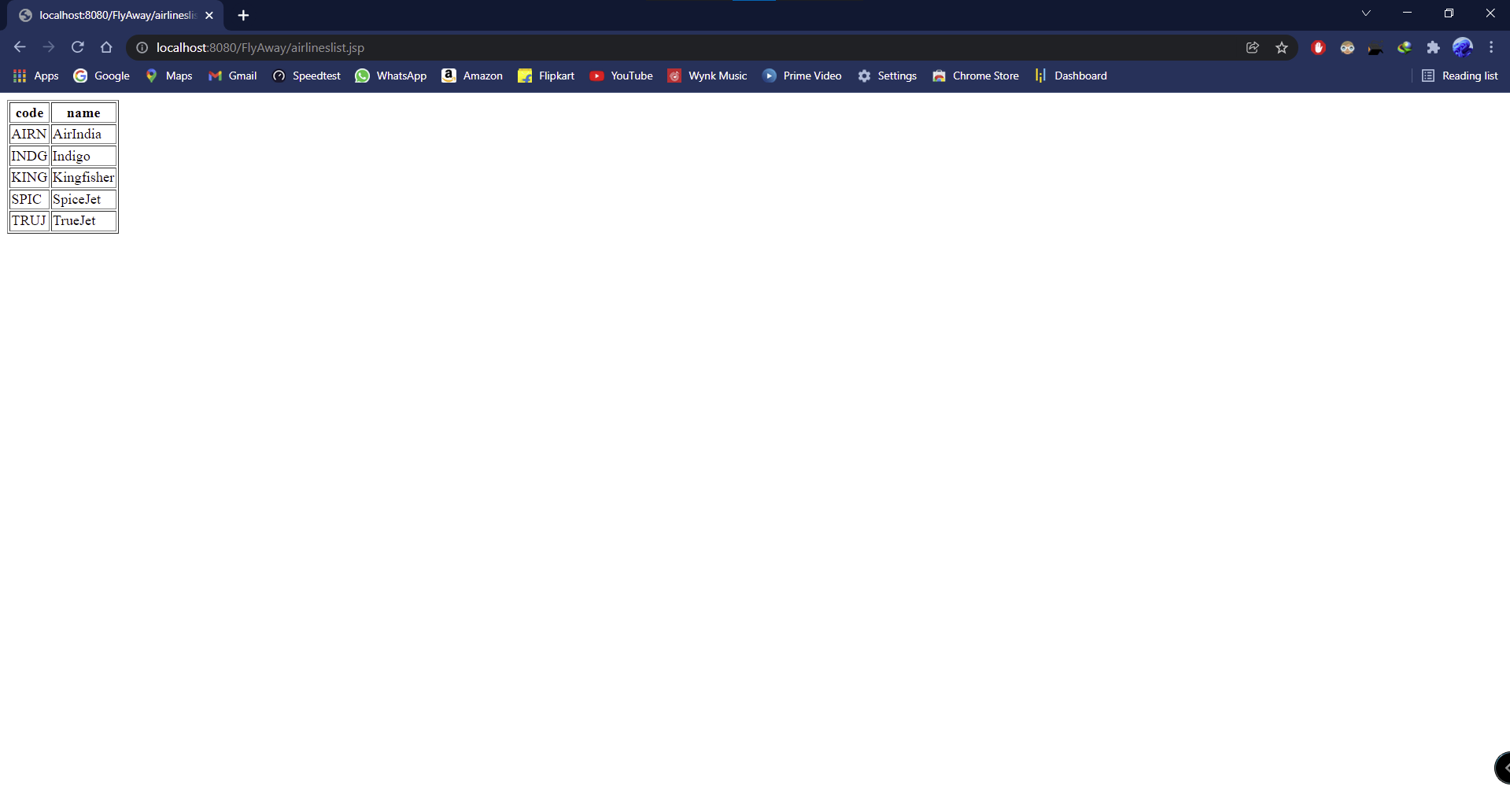
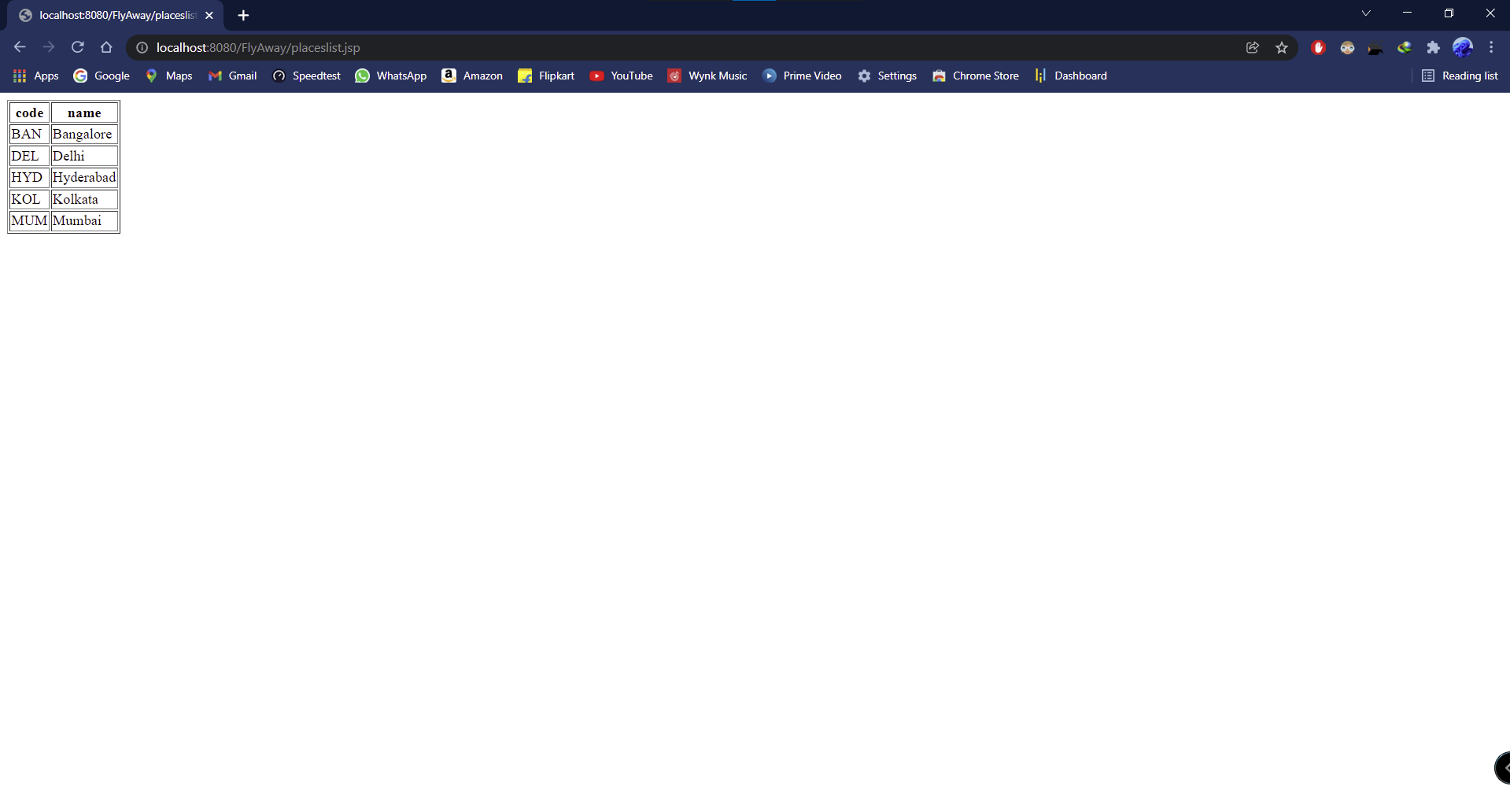
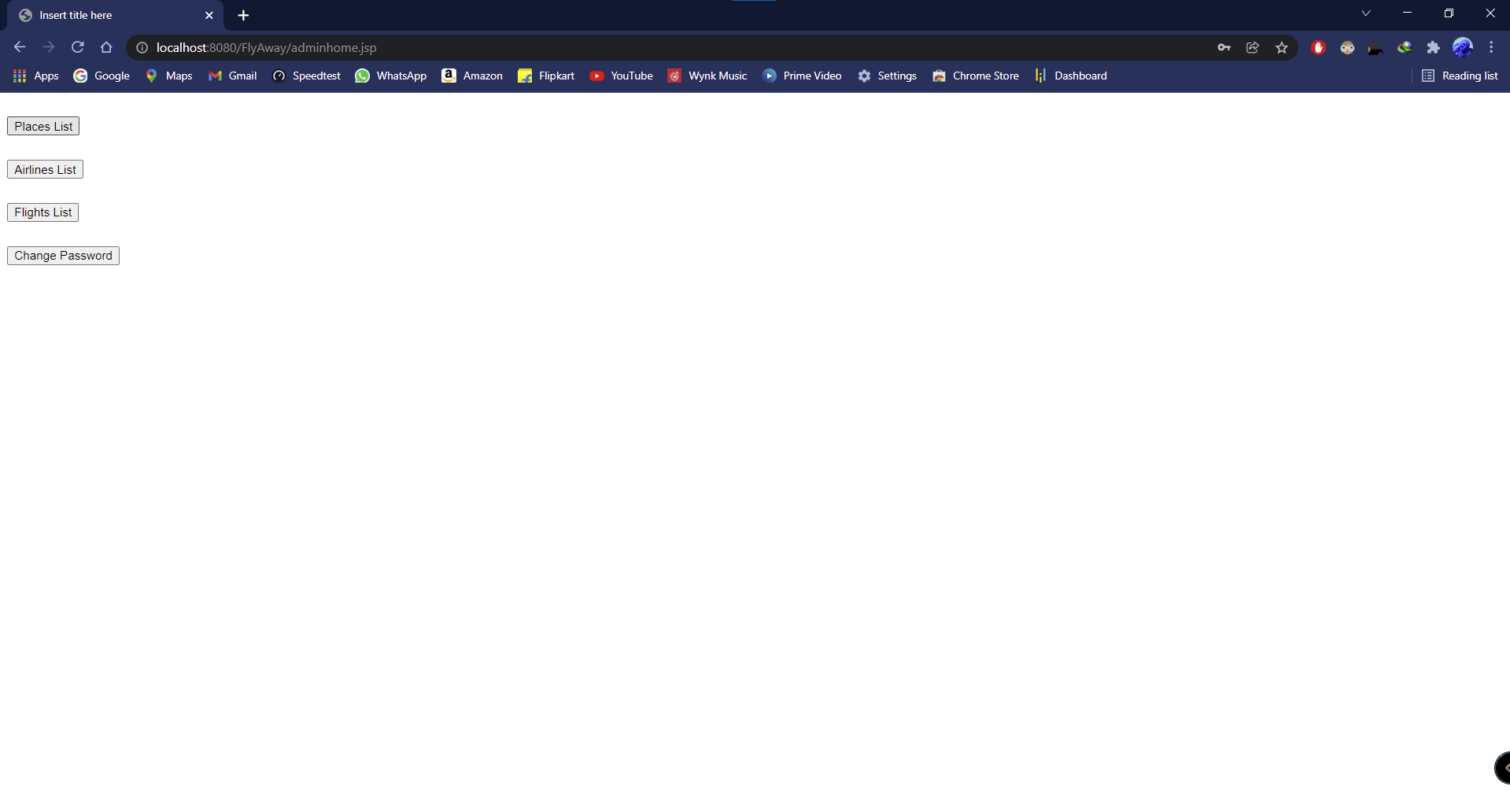
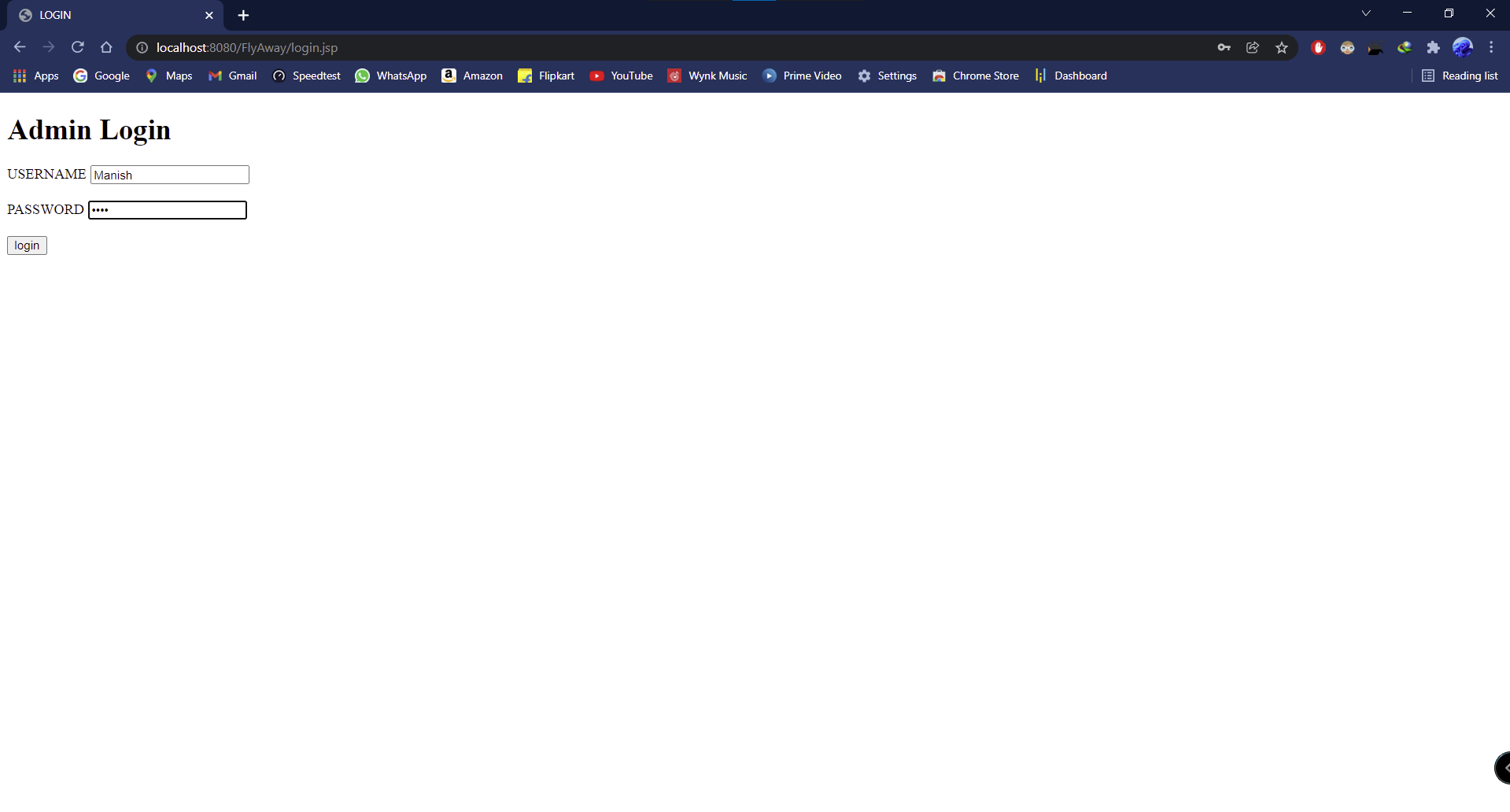
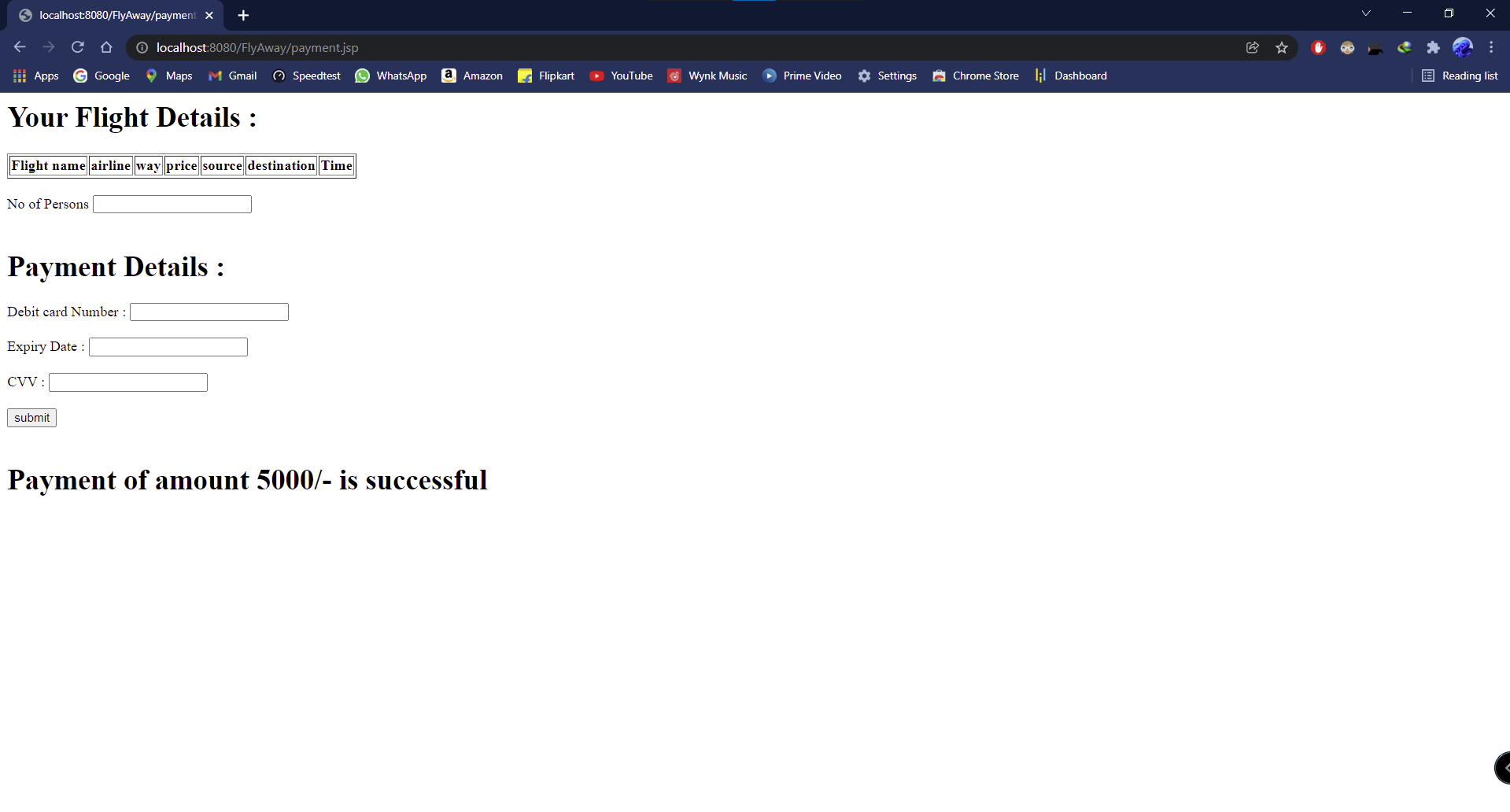
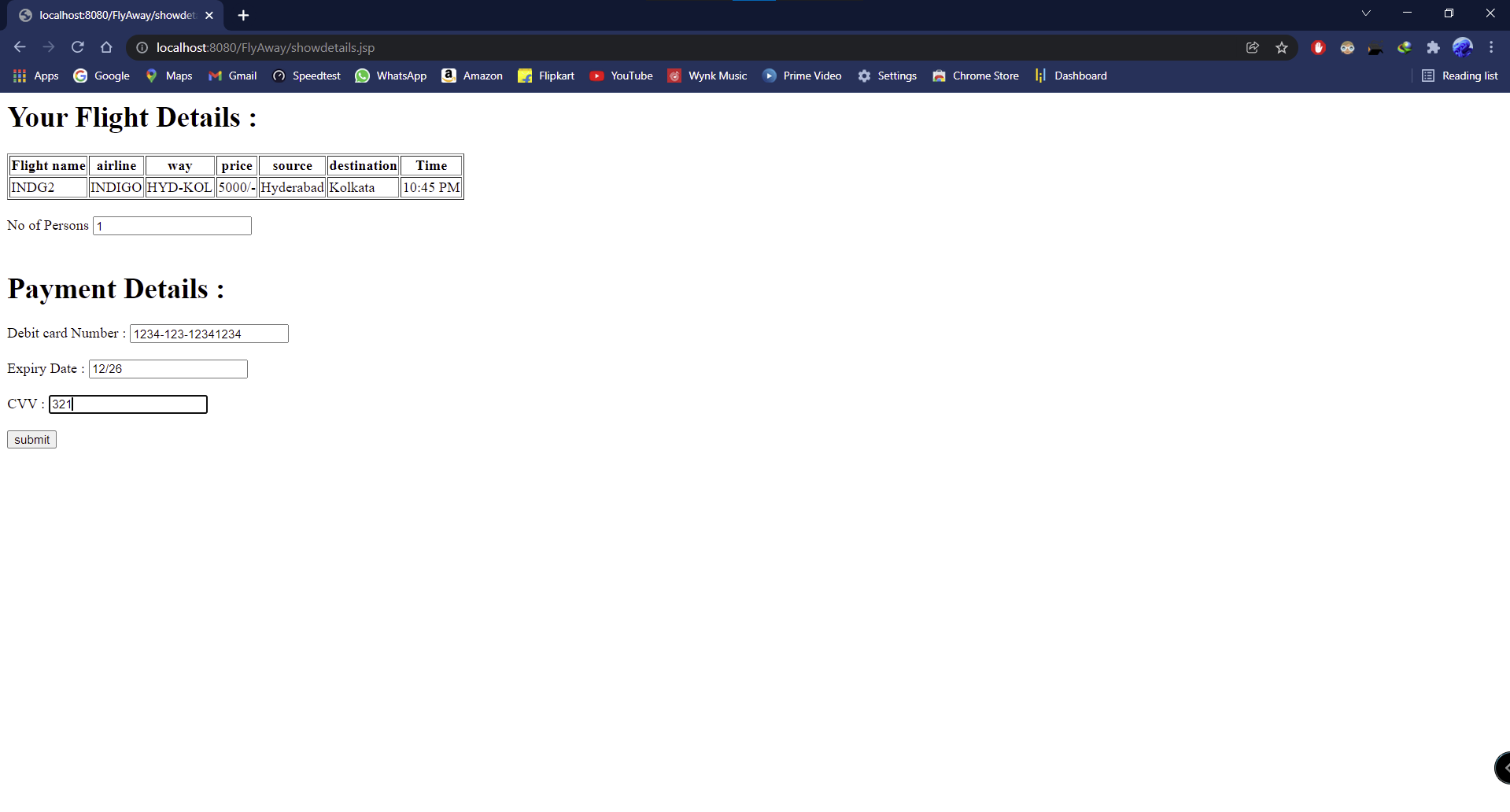
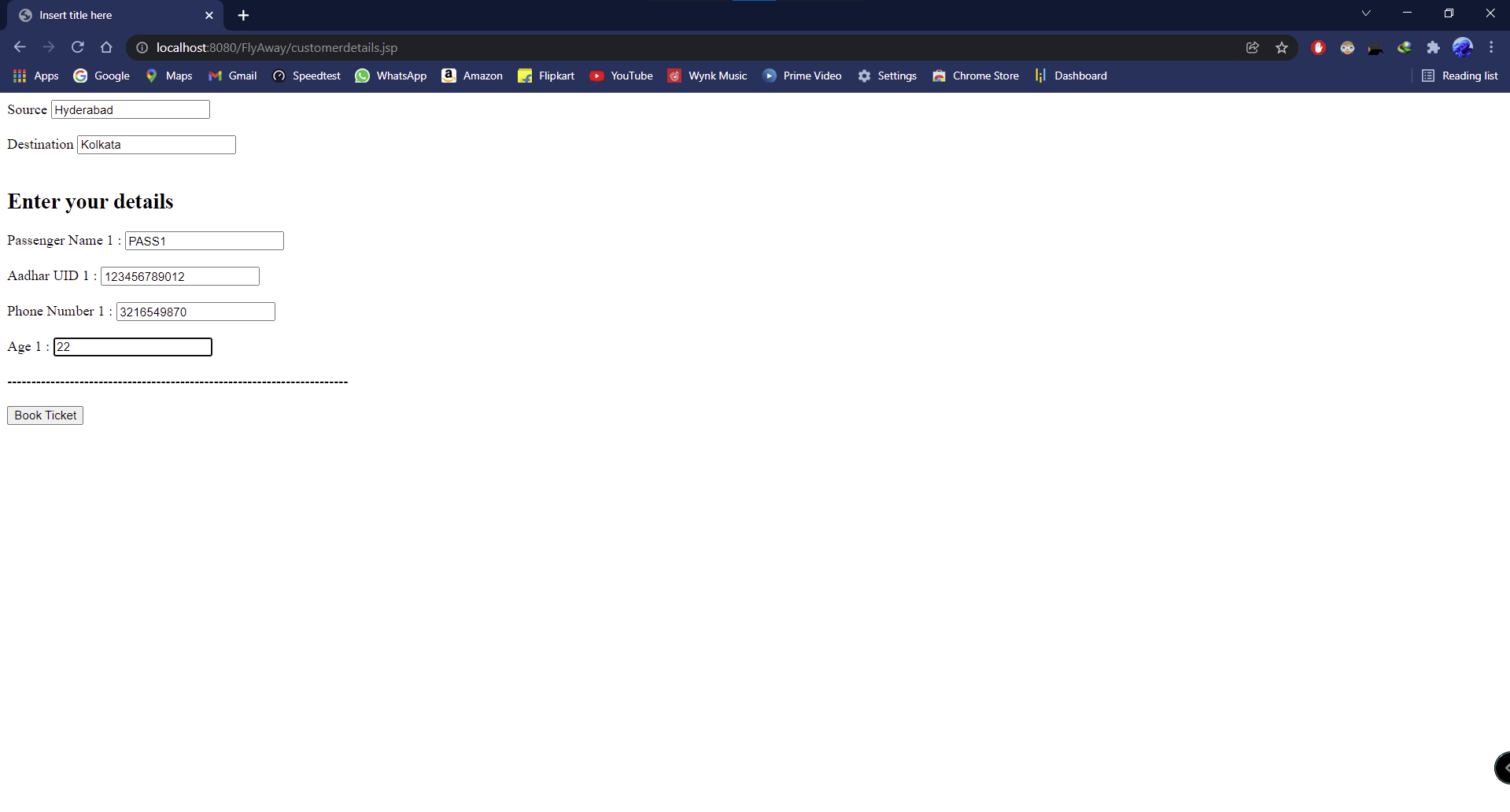
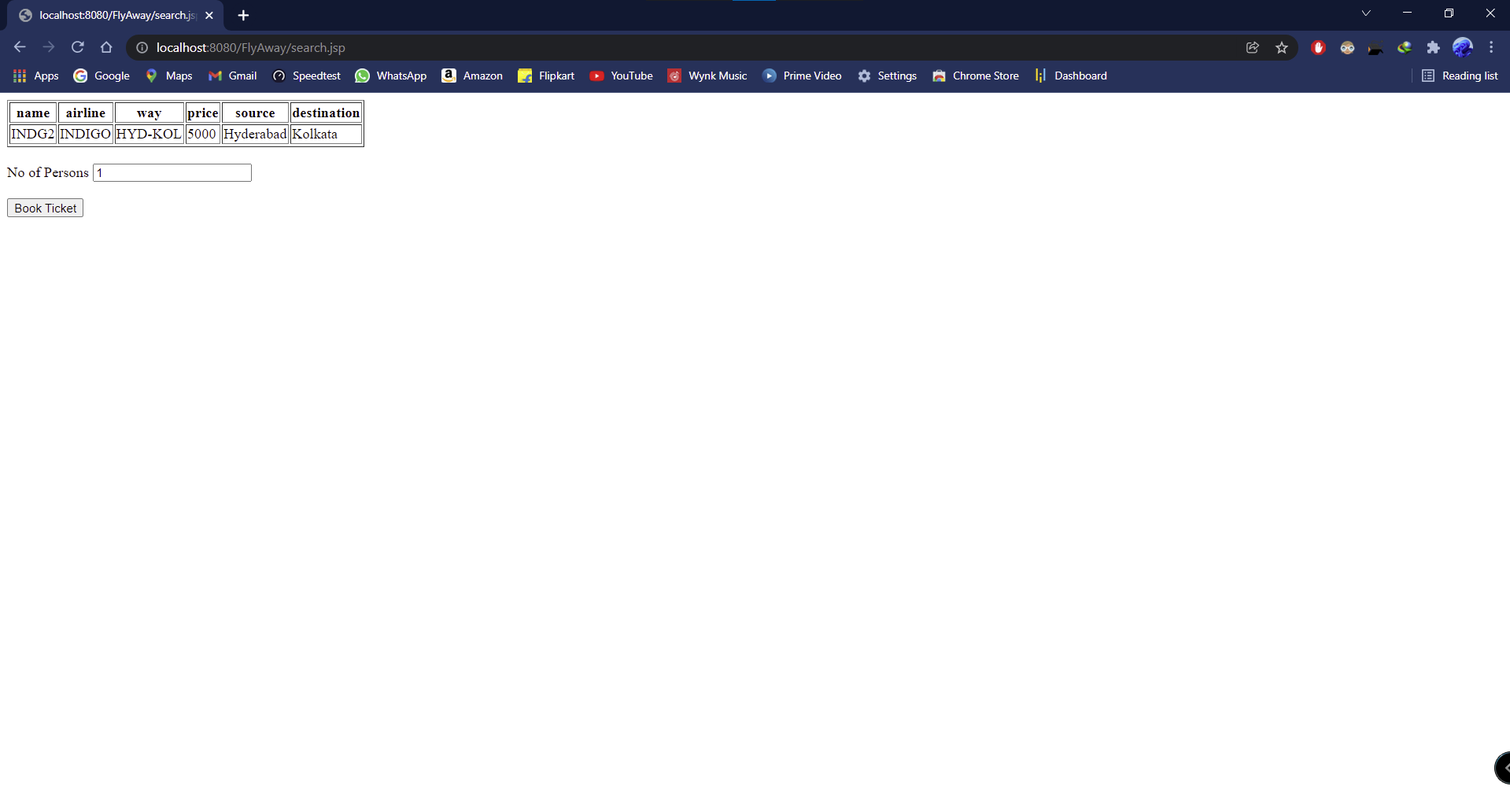
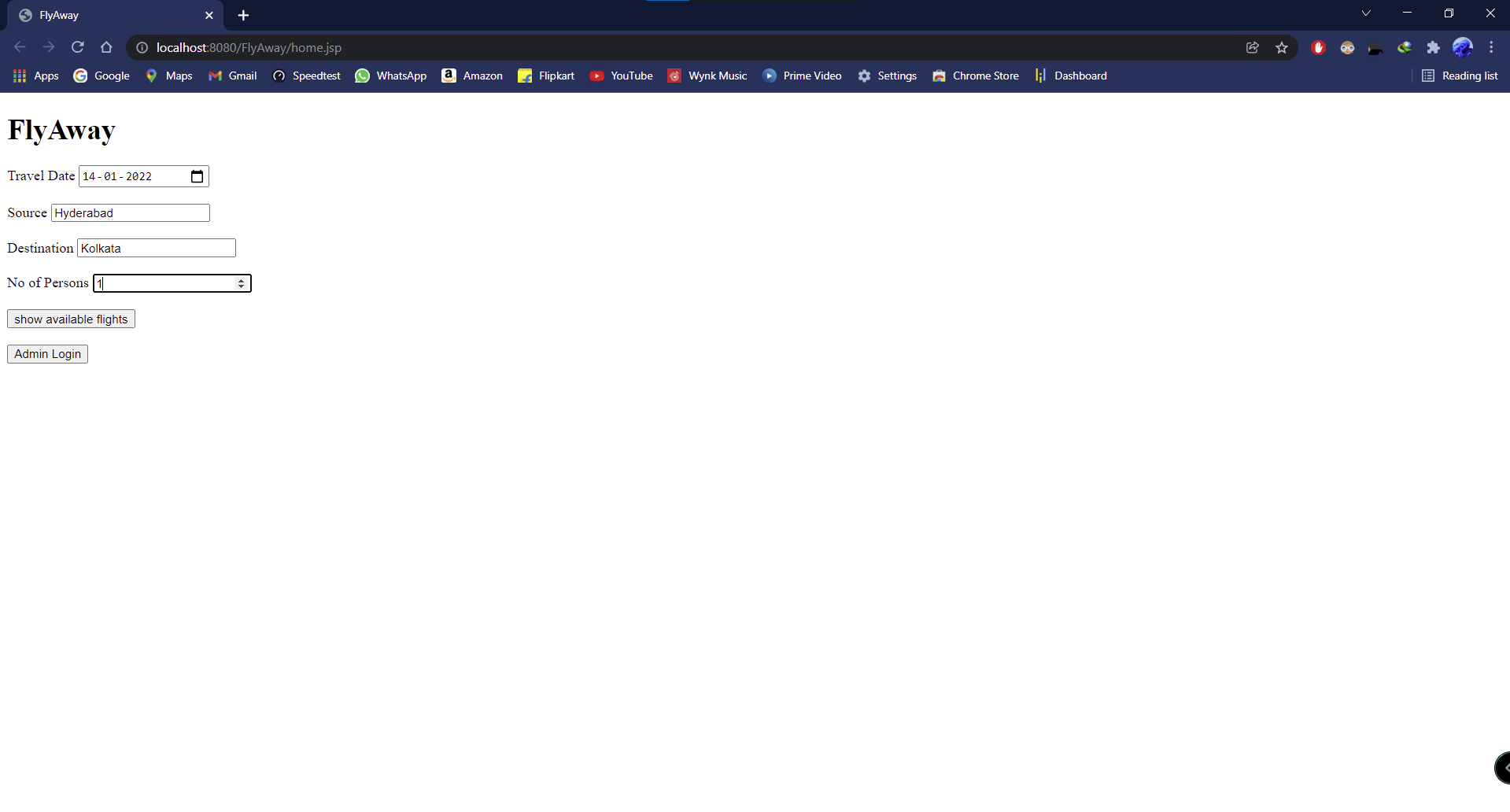
</br> CVV : <input type=*"text"*></br>

</br> <input type=*"submit"* value=*"submit"*></br>

</br>

</form>

**Screenshots:**

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