**Views(JSP pages)**

**user\_index.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Search flight</title>

<script type=*"text/javascript"*>

**function** validateForm() {

let source = document.getElementById("source").value;

let destination = document.getElementById("destination").value;

let isValid = **true**;

let inputDate = document.getElementById("date").value;

let currentDate = (**new** Date()).toLocaleDateString();

let enteredDate = (**new** Date(inputDate)).toLocaleDateString();

let seats = parseInt(document.getElementById("seats").value);

**if** (source === destination) {

alert("Source and Destination cannnot be same. Please enter different source and destination details");

isValid = **false**;

}

**if** (enteredDate < currentDate) {

alert("Entered date is in past. Please enter a valid date");

isValid = **false**;

}

**if**(seats <= 0){

alert("Seats cannot be less than are equal to 0. Please enter valid number of seats");

isValid = **false**;

}

**return** isValid;

}

</script>

</head>

<body>

<h1>Welcome to FlyAway</h1>

<form action=*"search"* method=*"post"* onsubmit="return validateForm()">

<table>

<tr>

<td>Source</td>

<td><input type=*"text"* name=*"source"* placeholder=*"Source city"*

id=*"source"* required /></td>

</tr>

<tr>

<td>Destination</td>

<td><input type=*"text"* name=*"destination"*

placeholder=*"Destination city"* id=*"destination"* required /></td>

</tr>

<tr>

<td>Number of seats</td>

<td><input type=*"number"* name=*"seats"*

placeholder=*"Number of seats"* id=*"seats"* required /></td>

</tr>

<tr>

<td>Date</td>

<td><input type=*"date"* name=*"date"* placeholder=*"Date"* id=*"date"*

required /></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* value=*"Search"* /></td>

</tr>

</table>

</form>

</body>

</html>

**user\_searchresult.jsp**

<%@page import=*"com.scode.user.model.Flight"*%>

<%@page import=*"java.util.ArrayList"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if**(session.getAttribute("source") == **null**)

response.sendRedirect("user\_index.jsp");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Flights</title>

</head>

<body>

<%

ArrayList<Flight> flights = (ArrayList<Flight>) request.getAttribute("flights");

String message = (String) request.getAttribute("message");

**if**(flights != **null**){

%>

<h1><%=message%></h1>

<form action=*"book"* method=*"post"*>

<table border=*"1"*>

<thead>

<tr>

<th>FlightId</th>

<th>Airline</th>

<th>Available seats</th>

<th>Date</th>

<th>Price per seat</th>

<th></th>

</tr>

</thead>

<%

**if** (!flights.isEmpty()) {

**for** (Flight flight : flights) {

%>

<tr>

<td><%=flight.getId()%></td>

<td><%=flight.getAirline()%></td>

<td><%=flight.getSeats()%></td>

<td><%=flight.getDate()%></td>

<td><%=flight.getPrice()%></td>

<td><input type=*"submit"* value=*"Book flight"* /><input

type=*"hidden"* value=<%=flight.getId()%> name=*"bookingflightid"* /></td>

</tr>

<%

}

}

%>

</table>

</form>

<a href=*"user\_index.jsp"*>Go to search</a>

<%} %>

</body>

</html>

**user\_confirmbooking.jsp**

<%@page import=*"com.scode.user.model.Flight"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

Flight flight = **null**;

**if** (session.getAttribute("source") == **null** || request.getAttribute("flightdetails") == **null**)

response.sendRedirect("user\_index.jsp");

**else** {

flight = (Flight) request.getAttribute("flightdetails");

session.setAttribute("flight", flight);

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Confirm booking</title>

</head>

<body>

<% **if**(flight != **null**) {%>

<h1>Confirm booking</h1>

<form action=*"confirmbooking"* method=*"post"*

onsubmit="return validateForm()">

<input type=*"hidden"* name=*"flight"* value=*"*<%=flight%>*"* />

<table>

<tr>

<td>Flight ID</td>

<td><input type=*"text"* value=<%=flight.getId()%> readonly /></td>

</tr>

<tr>

<td>Source</td>

<td><input type=*"text"* value=<%=flight.getSource()%> readonly /></td>

</tr>

<tr>

<td>Destination</td>

<td><input type=*"text"* value=<%=flight.getDestination()%>

readonly /></td>

</tr>

<tr>

<td>Airline</td>

<td><input type=*"text"* value=<%=flight.getAirline()%> readonly /></td>

</tr>

<tr>

<td>Available seats</td>

<td><input type=*"text"* value=<%=flight.getSeats()%> readonly /></td>

</tr>

<tr>

<td>Date</td>

<td><input type=*"text"* value=<%=flight.getDate()%> readonly /></td>

</tr>

<tr>

<td>First Name</td>

<td><input type=*"text"* name=*"firstname"*

placeholder=*"First Name"* required /></td>

</tr>

<tr>

<td>Last Name</td>

<td><input type=*"text"* name=*"lastname"* placeholder=*"Last Name"*

required /></td>

</tr>

<tr>

<td>Phone number</td>

<td><input type=*"text"* name=*"phno"* placeholder=*"Phone number"*

required /></td>

</tr>

<tr>

<td>Email</td>

<td><input type=*"email"* name=*"email"* placeholder=*"Email"*

required /></td>

</tr>

<tr>

<td>Confirm number of seats</td>

<td><input type=*"number"* name=*"seats"* placeholder=*"Seats"*

id=*"seats"* required /></td>

</tr>

<tr>

<td>Total Price</td>

<td><input type=*"number"* name=*"totalprice"* id=*"price"* readonly /></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* name=*"book"* /></td>

</tr>

</table>

</form>

</body>

<script type=*"text/javascript"*>

let price = document.getElementById("price");

let seat = document.getElementById("seats");

**function** validateForm() {

let isValid = **true**;

let seats = parseInt(seat.value);

**if** (seats <= 0) {

alert("Seats cannot be less than are equal to 0. Please enter valid number of seats");

isValid = **false**;

}

**if** (seats >

<%=flight.getSeats()%>

) {

alert("Entered number of seats is greater than available seats");

isValid = **false**;

}

**return** isValid;

}

document.getElementById("seats").addEventListener('focusout',() => {

let seats = parseInt(seat.value);

price.value = seats \* <%=flight.getPrice()%>;

});

</script>

<% } %>

</html>

**user\_booking.jsp**

<%@page import=*"com.scode.user.model.Booking"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("source") == **null**)

response.sendRedirect("user\_index.jsp");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Confirm page</title>

</head>

<body>

<h1 id=*"payment"*>Processing payment</h1>

<div id=*"container"* style="visibility: *hidden*">

<%

String id = (String) request.getAttribute("messageid");

String message = (String) request.getAttribute("message");

Booking booking = (Booking) request.getAttribute("booking");

%>

<h1><%=message%></h1>

<%

**if** (id == "1") {

%>

<table>

<tr>

<td>Booking ID</td>

<td><%=booking.getBookingId()%></td>

</tr>

<tr>

<td>Flight ID</td>

<td><%=booking.getFlightId()%></td>

</tr>

<tr>

<td>First Name</td>

<td><%=booking.getFirstName()%></td>

</tr>

<tr>

<td>Last Name</td>

<td><%=booking.getLastName()%></td>

</tr>

<tr>

<td>Phone Number</td>

<td><%=booking.getNumber()%></td>

</tr>

<tr>

<td>Email</td>

<td><%=booking.getEmail()%></td>

</tr>

<tr>

<td>Date</td>

<td><%=booking.getDate()%></td>

</tr>

<tr>

<td>Seats</td>

<td><%=booking.getSeats()%></td>

</tr>

<tr>

<td>Price</td>

<td><%=booking.getPrice()%></td>

</tr>

<tr>

<td colspan=*"2"*><a href=*"user\_index.jsp"*>Go to search</a></td>

</tr>

</table>

<%

}

%>

</div>

</body>

<script>

let heading = document.getElementById("payment");

let container = document.getElementById("container");

**const** myTimeout = setTimeout(() => {

heading.style.visibility = "hidden";

container.style.visibility = "visible";

}, 5000);

</script>

</html>

**admin\_index.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>FlyAway</title>

</head>

<body>

<h1>Welcome to FlyAway Admin portal</h1>

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

<table>

<tr>

<td>Username</td>

<td><input type=*"text"* name=*"username"* placeholder=*"Username"* required/></td>

</tr>

<tr>

<td>Password</td>

<td><input type=*"password"* name=*"password"* placeholder=*"password"* required/></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* value=*"Login"*/></td>

</tr>

</table>

</form>

</body>

</html>

**admin\_dashboard.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

//System.out.println(session.getAttribute("isValid"));

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Dashboard</title>

</head>

<body>

<h1>Welcome to dashboard</h1>

<table>

<tr>

<td><a href=*"admin\_changepassword.jsp"*>Change password</a></td>

</tr>

<tr>

<td><a href=*"admin\_addplace.jsp"*>Add new place</a></td>

</tr>

<tr>

<td><a href=*"admin\_addairline.jsp"*>Add new airline</a></td>

</tr>

<tr>

<td><a href=*"admin\_addflight.jsp"*>Add new flight</a></td>

</tr>

<tr>

<td><a href=*"showflights"*>Show flights</a></td>

</tr>

<tr>

<td><a href=*"showbookings"*>Show bookings</a></td>

</tr>

<tr>

<td><a href=*"showairlines"*>Show airlines</a></td>

</tr>

<tr>

<td><a href=*"showplaces"*>Show places</a></td>

</tr>

<tr>

<td><a href=*"logout"*>Logout</a></td>

</tr>

</table>

</body>

</html>

**admin\_changepassword.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Change password</title>

</head>

<body>

<h1>Enter a new password</h1>

<form action=*"change"* method=*"post"*>

<table>

<tr>

<td>New Password:</td>

<td><input type=*"password"* name=*"password"*

placeholder=*"New password"* required /></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* value=*"Change password"* /></td>

</tr>

</table>

</form>

</body>

</html>

**admin\_addplace.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Add place</title>

</head>

<body>

<h1>Enter place name to add</h1>

<form action=*"addplace"* method=*"post"*>

<table>

<tr>

<td>New Place:</td>

<td><input type=*"text"* name=*"place"* placeholder=*"Place name"*

required /></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* value=*"Add place"* /></td>

</tr>

</table>

</form>

</body>

</html>

**admin\_addairline.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Add airline</title>

</head>

<body>

<h1>Enter airline name to add</h1>

<form action=*"addairline"* method=*"post"*>

<table>

<tr>

<td>New Airline:</td>

<td><input type=*"text"* name=*"airline"*

placeholder=*"Airline name"* required /></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* value=*"Add airline"* /></td>

</tr>

</table>

</form>

</body>

</html>

**admin\_addflight.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Add flight</title>

<script>

// alert(new Date());

**function** validateForm() {

let source = document.getElementById("source").value;

let destination = document.getElementById("destination").value;

let isValid = **true**;

let inputDate = document.getElementById("date").value;

let currentDate = (**new** Date()).toLocaleDateString();

let enteredDate = (**new** Date(inputDate)).toLocaleDateString();

**if** (source === destination) {

alert("Source and Destination cannnot be same. Please enter different source and destination details");

isValid = **false**;

}

**if** (enteredDate < currentDate) {

alert("Entered date is in past. Please enter a valid date");

isValid = **false**;

}

**return** isValid;

}

</script>

</head>

<body>

<h1>Enter flight details to add</h1>

<form action=*"addflight"* method=*"post"* onsubmit="return validateForm()">

<table>

<tr>

<td>New Flight ID:</td>

<td><input type=*"text"* name=*"flightid"* placeholder=*"Flight ID"*

required /></td>

</tr>

<tr>

<td>Source:</td>

<td><input type=*"text"* name=*"source"* placeholder=*"Source"*

id=*"source"* required /></td>

</tr>

<tr>

<td>Destination:</td>

<td><input type=*"text"* name=*"destination"*

placeholder=*"Destination"* id=*"destination"* required /></td>

</tr>

<tr>

<td>Airline:</td>

<td><input type=*"text"* name=*"airline"* placeholder=*"Airline"*

required /></td>

</tr>

<tr>

<td>Total seats:</td>

<td><input type=*"text"* name=*"seats"* placeholder=*"Seats"*

required /></td>

</tr>

<tr>

<td>Date:</td>

<td><input type=*"date"* name=*"date"* placeholder=*"Date"* id=*"date"*

required /></td>

</tr>

<tr>

<td>Price:</td>

<td><input type=*"number"* name=*"price"* placeholder=*"Price"*

required /></td>

</tr>

<tr>

<td colspan=*"2"*><input type=*"submit"* value=*"Add flight"* /></td>

</tr>

</table>

</form>

</body>

</html>

**admin\_loginerror.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Invalid login page</title>

</head>

<body>

<h1>Invalid login deatils</h1>

<%

session.removeAttribute("isValid");

%>

<a href=*"admin\_index.jsp"*>Go to login</a>

</body>

</html>

**admin\_result.jsp**

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

String message = (String) request.getAttribute("message");

%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title><%=message%></title>

</head>

<body>

<h1><%=message%></h1>

<a href=*"admin\_dashboard.jsp"*>Go to dashboard</a>

</body>

</html>

**admin\_showairlines.jsp**

<%@page import=*"java.util.ArrayList"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

**if** (request.getAttribute("airlines") == **null**) {

response.sendRedirect("admin\_dashboard.jsp");

} **else** {

String message = (String) request.getAttribute("message");

ArrayList<String> airlines = (ArrayList<String>) request.getAttribute("airlines");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Places</title>

</head>

<body>

<h1><%=message%></h1>

<%

**if** (!airlines.isEmpty()) {

%>

<table>

<tr>

<th>Airlines</th>

</tr>

<%

**for** (String airline : airlines) {

%>

<tr><td><%= airline %></td></tr>

<%

}

%>

</table>

<a href =*"admin\_dashboard.jsp"*>Go to dashboard</a>

</body>

</html>

<%

}

}

%>

**admin\_showbookings.jsp**

<%@page import=*"com.scode.user.model.Booking"*%>

<%@page import=*"java.util.ArrayList"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

**if** (request.getAttribute("bookings") == **null**) {

response.sendRedirect("admin\_dashboard.jsp");

} **else** {

String message = (String) request.getAttribute("message");

ArrayList<Booking> bookings = (ArrayList<Booking>) request.getAttribute("bookings");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Bookings</title>

</head>

<body>

<h1><%=message%></h1>

<%

**if** (!bookings.isEmpty()) {

%>

<table>

<tr>

<th>Booking ID</th>

<th>Flight ID</th>

<th>First Name</th>

<th>Last Name</th>

<th>Phone Number</th>

<th>Email</th>

<th>Date</th>

<th>Seats</th>

<th>Price</th>

</tr>

<%

**for** (Booking booking : bookings) {

%>

<tr>

<td><%=booking.getBookingId()%></td>

<td><%=booking.getFlightId()%></td>

<td><%=booking.getFirstName()%></td>

<td><%=booking.getLastName()%></td>

<td><%=booking.getNumber()%></td>

<td><%=booking.getEmail()%></td>

<td><%=booking.getDate()%></td>

<td><%=booking.getSeats()%></td>

<td><%=booking.getPrice()%></td>

</tr>

<%

}

%>

</table>

<a href=*"admin\_dashboard.jsp"*>Go to dashboard</a>

</body>

</html>

<%

}

}

%>

**admin\_showflights.jsp**

<%@page import=*"com.scode.admin.model.Flight"*%>

<%@page import=*"com.scode.user.model.Booking"*%>

<%@page import=*"java.util.ArrayList"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

**if** (request.getAttribute("flights") == **null**) {

response.sendRedirect("admin\_dashboard.jsp");

} **else** {

String message = (String) request.getAttribute("message");

ArrayList<Flight> flights = (ArrayList<Flight>) request.getAttribute("flights");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Flights</title>

</head>

<body>

<h1><%=message%></h1>

<%

**if** (!flights.isEmpty()) {

%>

<table>

<tr>

<th>Flight ID</th>

<th>Source</th>

<th>Destination</th>

<th>Airline</th>

<th>seats</th>

<th>Date</th>

<th>Price</th>

</tr>

<%

**for** (Flight flight : flights) {

%>

<tr>

<td><%=flight.getId()%></td>

<td><%=flight.getSource()%></td>

<td><%=flight.getDestination()%></td>

<td><%=flight.getAirline()%></td>

<td><%=flight.getSeats()%></td>

<td><%=flight.getDate()%></td>

<td><%=flight.getPrice()%></td>

</tr>

<%

}

%>

</table>

<a href=*"admin\_dashboard.jsp"*>Go to dashboard</a>

</body>

</html>

<%

}

}

%>

**admin\_showplaces.jsp**

<%@page import=*"java.util.ArrayList"*%>

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"*

pageEncoding=*"UTF-8"*%>

<%

**if** (session.getAttribute("isValid") == **null**)

response.sendRedirect("admin\_index.jsp");

**else** {

**boolean** isValid = (Boolean) session.getAttribute("isValid");

**if** (!isValid)

response.sendRedirect("admin\_index.jsp");

}

**if** (request.getAttribute("places") == **null**) {

response.sendRedirect("admin\_dashboard.jsp");

} **else** {

String message = (String) request.getAttribute("message");

ArrayList<String> places = (ArrayList<String>) request.getAttribute("places");

%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Places</title>

</head>

<body>

<h1><%=message%></h1>

<%

**if** (!places.isEmpty()) {

%>

<table>

<tr>

<th>Places</th>

</tr>

<%

**for** (String place : places) {

%>

<tr><td><%= place %></td></tr>

<%

}

%>

</table>

<a href =*"admin\_dashboard.jsp"*>Go to dashboard</a>

</body>

</html>

<%

}

}

%>

**ConnectionUtil.java**

package com.scode.util;

import java.sql.\*;

import javax.naming.InitialContext;

import javax.naming.NamingException;

import javax.sql.DataSource;

public class ConnectionUtil {

public static Connection getConnection() {

Connection connection = null;

try {

InitialContext context = new InitialContext();

DataSource dataSource = (DataSource) context.lookup("java:comp/env/myds");

connection = dataSource.getConnection();

// System.out.println(connection);

} catch (NamingException e) {

e.printStackTrace();

} catch (SQLException e) {

e.printStackTrace();

}

return connection;

}

}

**Models(Java classes)**

**Flight.java**

package com.scode.user.model;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.time.LocalDate;

import java.util.ArrayList;

import java.util.Date;

import com.scode.util.ConnectionUtil;

public class Flight {

private String id;

private String source;

private String destination;

private String airline;

private int seats;

private String date;

private double price;

private int count;

private Connection con;

private PreparedStatement stmt, stmt1, stmt2, stmt3;

public Flight() {

try {

con = ConnectionUtil.getConnection();

stmt = con.prepareStatement(

"select \* from flights where source = ? and destination = ? and date = ? and seats >= ?");

stmt1 = con.prepareStatement("select \* from flights where source = ? and destination = ?");

stmt2 = con.prepareStatement(

"select count(\*) as count from flights where source = ? and destination = ? and date = ? and seats >= ?");

stmt3 = con.prepareStatement("select \* from flights where flightid = ?");

} catch (SQLException e) {

e.printStackTrace();

}

}

public String getId() {

return id;

}

public void setId(String id) {

this.id = id;

}

public String getSource() {

return source;

}

public void setSource(String source) {

this.source = source;

}

public String getDestination() {

return destination;

}

public void setDestination(String destination) {

this.destination = destination;

}

public String getAirline() {

return airline;

}

public void setAirline(String airline) {

this.airline = airline;

}

public int getSeats() {

return seats;

}

public void setSeats(int seats) {

this.seats = seats;

}

public String getDate() {

return date;

}

public void setDate(String date) {

this.date = date;

}

public double getPrice() {

return price;

}

public void setPrice(double price) {

this.price = price;

}

@Override

public String toString() {

return "Flight [id=" + id + ", source=" + source + ", destination=" + destination + ", airline=" + airline

+ ", seats=" + seats + ", date=" + date + ", price=" + price + "]";

}

public int getCount() {

return count;

}

public ArrayList<Flight> searchFlight() {

ArrayList<Flight> flightList = new ArrayList<Flight>();

try {

stmt2.setString(1, source);

stmt2.setString(2, destination);

stmt2.setString(3, date);

stmt2.setInt(4, seats);

ResultSet rs = stmt2.executeQuery();

rs.next();

count = rs.getInt(1);

if (count > 0) {

stmt.setString(1, source);

stmt.setString(2, destination);

stmt.setString(3, date);

stmt.setInt(4, seats);

rs = stmt.executeQuery();

} else {

stmt1.setString(1, source);

stmt1.setString(2, destination);

rs = stmt1.executeQuery();

}

while (rs.next()) {

Flight flight = new Flight();

flight.setSource(source);

flight.setDestination(destination);

flight.setDate(rs.getString(6));

flight.setAirline(rs.getString(3));

flight.setId(rs.getString(1));

flight.setSeats(rs.getInt(5));

flight.setPrice(rs.getDouble(7));

flightList.add(flight);

flight.destroy();

}

} catch (SQLException e) {

e.printStackTrace();

}

return flightList;

}

public Flight searchFlight(String id) {

Flight flight = new Flight();

try {

stmt3.setString(1, id);

ResultSet rs = stmt3.executeQuery();

rs.next();

flight.setId(id);

flight.setSource(rs.getString(2));

flight.setDestination(rs.getString(3));

flight.setAirline(rs.getString(4));

flight.setSeats(rs.getInt(5));

flight.setDate(rs.getString(6));

flight.setPrice(rs.getDouble(7));

flight.destroy();

} catch (SQLException e) {

e.printStackTrace();

}

return flight;

}

public void destroy() {

try {

con.close();

stmt.close();

stmt1.close();

stmt2.close();

stmt3.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

**Booking.java**

package com.scode.user.model;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.ArrayList;

import com.scode.util.ConnectionUtil;

public class Booking {

private String bookingId;

private String flightId;

private String firstName;

private String lastName;

private String number;

private String email;

private String date;

private int seats;

private double price;

private Connection con;

private PreparedStatement stmt, stmt1,stmt2;

public Booking() {

con = ConnectionUtil.getConnection();

try {

stmt = con.prepareStatement("insert into bookings values (?,?,?,?,?,?,?,?,?)");

stmt1 = con.prepareStatement("update flights set seats = ? where flightid= ?");

stmt2 = con.prepareStatement("select \* from bookings");

} catch (SQLException e) {

e.printStackTrace();

}

}

public String getBookingId() {

return bookingId;

}

public void setBookingId(String bookingId) {

this.bookingId = bookingId;

}

public String getFlightId() {

return flightId;

}

public void setFlightId(String flightId) {

this.flightId = flightId;

}

public String getFirstName() {

return firstName;

}

public void setFirstName(String firstName) {

this.firstName = firstName;

}

public String getLastName() {

return lastName;

}

public void setLastName(String lastName) {

this.lastName = lastName;

}

public String getNumber() {

return number;

}

public void setNumber(String number) {

this.number = number;

}

public String getEmail() {

return email;

}

public void setEmail(String email) {

this.email = email;

}

public String getDate() {

return date;

}

public void setDate(String date) {

this.date = date;

}

public int getSeats() {

return seats;

}

public void setSeats(int seats) {

this.seats = seats;

}

public double getPrice() {

return price;

}

public void setPrice(double price) {

this.price = price;

}

@Override

public String toString() {

return "Booking [bookingId=" + bookingId + ", flightId=" + flightId + ", firstName=" + firstName + ", lastName="

+ lastName + ", number=" + number + ", email=" + email + ", date=" + date + ", seats=" + seats

+ ", price=" + price + "]";

}

public int saveBooking() {

int result = 0;

try {

stmt.setString(1, bookingId);

stmt.setString(2, flightId);

stmt.setString(3, firstName);

stmt.setString(4, lastName);

stmt.setString(5, number);

stmt.setString(6, email);

stmt.setString(7, date);

stmt.setInt(8, seats);

stmt.setDouble(9, price);

result = stmt.executeUpdate();

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public int updateSeats(int s) {

int remainingSeats = s - seats;

int result = 0;

try {

stmt1.setInt(1, remainingSeats);

stmt1.setString(2, flightId);

result = stmt1.executeUpdate();

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public void destroy() {

try {

con.close();

stmt.close();

stmt1.close();

stmt2.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

public ArrayList<Booking> getBookings() {

ArrayList<Booking> bookings = new ArrayList<Booking>();

try {

ResultSet rs = stmt2.executeQuery();

while(rs.next()) {

Booking booking = new Booking();

booking.setBookingId(rs.getString(1));

booking.setFlightId(rs.getString(2));

booking.setFirstName(rs.getString(3));

booking.setLastName(rs.getString(4));

booking.setNumber(rs.getString(5));

booking.setEmail(rs.getString(6));

booking.setDate(rs.getString(7));

booking.setSeats(rs.getInt(8));

booking.setPrice(rs.getDouble(9));

bookings.add(booking);

booking.destroy();

}

} catch (SQLException e) {

e.printStackTrace();

}

return bookings;

}

}

**Admin.java**

package com.scode.admin.model;

import java.sql.\*;

import com.scode.util.ConnectionUtil;

public class Admin {

private String username;

private String password;

private Connection con;

private PreparedStatement stmt,stmt1;

public Admin() {

try {

con = ConnectionUtil.getConnection();

stmt = con.prepareStatement("select \* from admin where username = ? and password = ?");

stmt1 = con.prepareStatement("update admin set password = ?");

} catch (SQLException e) {

e.printStackTrace();

}

}

public void setUsername(String username) {

this.username = username;

}

public void setPassword(String password) {

this.password = password;

}

public boolean validate() {

boolean result = false;

try {

stmt.setString(1, username);

stmt.setString(2, password);

ResultSet rs = stmt.executeQuery();

result = rs.next();

// System.out.println(result);

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public int updatePassword(String password) {

int result = 0;

try {

stmt1.setString(1, password);

result = stmt1.executeUpdate();

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public void destroy() {

try {

con.close();

stmt.close();

stmt1.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

**Airline.java**

package com.scode.admin.model;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.ArrayList;

import com.scode.util.ConnectionUtil;

public class Airline {

private String name;

private Connection con;

private PreparedStatement stmt,stmt1,stmt2;

public Airline() {

try {

con = ConnectionUtil.getConnection();

stmt = con.prepareStatement("select \* from airline where airlinename = ?");

stmt1 = con.prepareStatement("insert into airline values(?)");

stmt2 = con.prepareStatement("select \* from airline");

} catch (SQLException e) {

e.printStackTrace();

}

}

public void setName(String name) {

this.name = name;

}

public int addPlace() {

int result = 0;

try {

stmt.setString(1, name);

ResultSet rs = stmt.executeQuery();

if(rs.next()) {

result = -1;

}else {

stmt1.setString(1, name);

result = stmt1.executeUpdate();

}

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public void destroy() {

try {

con.close();

stmt.close();

stmt1.close();

stmt2.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

public ArrayList<String> getAirlines() {

ArrayList<String> airlines = new ArrayList<String>();

try {

ResultSet rs = stmt2.executeQuery();

while(rs.next())

airlines.add(rs.getString(1));

} catch (SQLException e) {

e.printStackTrace();

}

return airlines;

}

}

**Flight.java**

package com.scode.admin.model;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.ArrayList;

import com.scode.util.ConnectionUtil;

public class Flight {

private String id;

private String source;

private String destination;

private String airline;

private int seats;

private String date;

private double price;

private Connection con;

private PreparedStatement stmt,stmt1,stmt2,stmt3,stmt4;

public Flight() {

try {

con = ConnectionUtil.getConnection();

stmt = con.prepareStatement("select \* from airline where airlinename = ?");

stmt1 = con.prepareStatement("select \* from places where place = ?");

stmt2 = con.prepareStatement("select \* from flights where flightid = ?");

stmt3 = con.prepareStatement("insert into flights values(?,?,?,?,?,?,?)");

stmt4 = con.prepareStatement("select \* from flights");

} catch (SQLException e) {

e.printStackTrace();

}

}

public String getId() {

return id;

}

public void setId(String id) {

this.id = id;

}

public String getSource() {

return source;

}

public void setSource(String source) {

this.source = source;

}

public String getDestination() {

return destination;

}

public void setDestination(String destination) {

this.destination = destination;

}

public String getAirline() {

return airline;

}

public void setAirline(String airline) {

this.airline = airline;

}

public int getSeats() {

return seats;

}

public void setSeats(int seats) {

this.seats = seats;

}

public String getDate() {

return date;

}

public void setDate(String date) {

this.date = date;

}

public double getPrice() {

return price;

}

@Override

public String toString() {

return "Flight [id=" + id + ", source=" + source + ", destination=" + destination + ", airline=" + airline

+ ", seats=" + seats + ", date=" + date + ", price=" + price + "]";

}

public void setPrice(double price) {

this.price = price;

}

public int addFlight() {

int result = 0;

try {

stmt.setString(1, airline);

ResultSet rs = stmt.executeQuery();

if(!rs.next())

return -1;

stmt1.setString(1, source);

rs = stmt1.executeQuery();

if(!rs.next())

return -2;

stmt1.setString(1, destination);

rs = stmt1.executeQuery();

if(!rs.next())

return -3;

stmt2.setString(1, id);

rs = stmt2.executeQuery();

if(rs.next()) {

System.out.println(rs.getString(1));

return -4;

}

stmt3.setString(1, id);

stmt3.setString(2, source);

stmt3.setString(3, destination);

stmt3.setString(4, airline);

stmt3.setInt(5, seats);

stmt3.setString(6, date);

stmt3.setDouble(7, price);

result = stmt3.executeUpdate();

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public void destroy() {

try {

con.close();

stmt.close();

stmt1.close();

stmt2.close();

stmt3.close();

stmt4.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

public ArrayList<Flight> getBookings() {

ArrayList<Flight> flights = new ArrayList<Flight>();

try {

ResultSet rs = stmt4.executeQuery();

while(rs.next()) {

Flight flight = new Flight();

flight.setId(rs.getString(1));

flight.setSource(rs.getString(2));

flight.setDestination(rs.getString(3));

flight.setAirline(rs.getString(4));

flight.setSeats(rs.getInt(5));

flight.setDate(rs.getString(6));

flight.setPrice(rs.getDouble(7));

flights.add(flight);

flight.destroy();

}

} catch (SQLException e) {

e.printStackTrace();

}

return flights;

}

}

**Place.java**

package com.scode.admin.model;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.ArrayList;

import com.scode.util.ConnectionUtil;

public class Place {

private String name;

private Connection con;

private PreparedStatement stmt, stmt1,stmt2;

public Place() {

try {

con = ConnectionUtil.getConnection();

stmt = con.prepareStatement("select \* from places where place = ?");

stmt1 = con.prepareStatement("insert into places values(?)");

stmt2 = con.prepareStatement("select \* from places");

} catch (SQLException e) {

e.printStackTrace();

}

}

public void setName(String name) {

this.name = name;

}

public int addPlace() {

int result = 0;

try {

stmt.setString(1, name);

ResultSet rs = stmt.executeQuery();

if (rs.next()) {

result = -1;

} else {

stmt1.setString(1, name);

result = stmt1.executeUpdate();

}

} catch (SQLException e) {

e.printStackTrace();

}

return result;

}

public ArrayList<String> getPlaces() {

ArrayList<String> places = new ArrayList<String>();

try {

ResultSet rs = stmt2.executeQuery();

while(rs.next())

places.add(rs.getString(1));

} catch (SQLException e) {

e.printStackTrace();

}

return places;

}

public void destroy() {

try {

con.close();

stmt.close();

stmt1.close();

stmt2.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

**Controllers (Servlets)**

**BookController.java**

package com.scode.user.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import com.scode.user.model.Flight;

/\*\*

\* Servlet implementation class BookController

\*/

@WebServlet("/book")

public class BookController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public BookController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

if (session.getAttribute("source") == null || request.getParameter("bookingflightid") == null) {

RequestDispatcher rd = request.getRequestDispatcher("user\_index.jsp");

rd.forward(request, response);

}

String flightid = request.getParameter("bookingflightid");

Flight flight = new Flight();

Flight result = flight.searchFlight(flightid);

RequestDispatcher rd = request.getRequestDispatcher("user\_confirmbooking.jsp");

request.setAttribute("flightdetails", result);

flight.destroy();

rd.forward(request, response);

}

}

**ConfirmBookingController.java**

package com.scode.user.controllers;

import java.io.IOException;

import java.util.Random;

import com.scode.user.model.Booking;

import com.scode.user.model.Flight;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

/\*\*

\* Servlet implementation class ConfirmBookingController

\*/

@WebServlet("/confirmbooking")

public class ConfirmBookingController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ConfirmBookingController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// String flight = request.getParameter("flight");

Flight flight = (Flight) request.getSession().getAttribute("flight");

HttpSession session = request.getSession();

if (session.getAttribute("source") == null || request.getParameter("firstname") == null) {

RequestDispatcher rd = request.getRequestDispatcher("user\_index.jsp");

rd.forward(request, response);

}

Random random = new Random();

String characters = "ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789";

int length = 10;

StringBuilder randomText = new StringBuilder();

for (int i = 0; i < length; i++) {

int randomIndex = random.nextInt(characters.length());

randomText.append(characters.charAt(randomIndex));

}

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

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

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

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

int seats = Integer.parseInt(request.getParameter("seats"));

double price = seats \* flight.getPrice();

Booking booking = new Booking();

booking.setBookingId(randomText.toString());

booking.setFlightId(flight.getId());

booking.setFirstName(firstname);

booking.setLastName(lastname);

booking.setNumber(phno);

booking.setEmail(email);

booking.setDate(flight.getDate());

booking.setSeats(seats);

booking.setPrice(price);

int result = booking.saveBooking();

booking.updateSeats(flight.getSeats());

// response.setContentType("text/html");

// PrintWriter out = response.getWriter();

// out.print("<h1>Processing payment request</h1>");

// try {

// Thread.sleep(3000);

// } catch (InterruptedException e) {

// e.printStackTrace();

// }

RequestDispatcher rd = request.getRequestDispatcher("user\_bookingresult.jsp");

if(result > 0) {

request.setAttribute("messageid", "1");

request.setAttribute("booking", booking);

request.setAttribute("message", "Flight booked. Find the details below");

}else {

request.setAttribute("messageid", "-1");

request.setAttribute("message", "Some error occured. Please try again later");

}

booking.destroy();

rd.forward(request, response);

// System.out.println(booking.toString());

}

}

**SearchController.java**

**package** com.scode.user.controllers;

**import** jakarta.servlet.RequestDispatcher;

**import** jakarta.servlet.ServletException;

**import** jakarta.servlet.annotation.WebServlet;

**import** jakarta.servlet.http.HttpServlet;

**import** jakarta.servlet.http.HttpServletRequest;

**import** jakarta.servlet.http.HttpServletResponse;

**import** jakarta.servlet.http.HttpSession;

**import** java.io.IOException;

**import** java.util.ArrayList;

**import** com.scode.user.model.Flight;

/\*\*

\* Servlet implementation class SearchController

\*/

@WebServlet("/search")

**public** **class** SearchController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** SearchController() {

**super**();

// **TODO** Auto-generated constructor stub

}

/\*\*

\* **@see** HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doGet(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

doPost(request, response);

}

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doPost(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

HttpSession session = request.getSession();

**if**(request.getParameter("source") == **null**) {

RequestDispatcher rd = request.getRequestDispatcher("user\_index.jsp");

rd.forward(request, response);

}

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

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

**int** seats = Integer.*parseInt*(request.getParameter("seats"));

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

System.***out***.println(date);

Flight flight = **new** Flight();

flight.setDestination(destination);

flight.setDate(date);

flight.setSource(source);

flight.setSeats(seats);

RequestDispatcher rd = request.getRequestDispatcher("user\_searchresult.jsp");

ArrayList<Flight> result = flight.searchFlight();

**if**(flight.getCount() == 0 && !result.isEmpty()) {

request.setAttribute("message", "Not able to find flights for your search. Here are some other flights between "+ source+" and "+destination);

request.setAttribute("flights", result);

}**else** **if**(result.isEmpty()) {

request.setAttribute("message", "No flights between "+ source+" and "+destination);

request.setAttribute("flights", result);

}**else** {

request.setAttribute("message", "Here are some flights between "+ source+" and "+destination);

request.setAttribute("flights", result);

}

**if**(session.getAttribute("source") == **null**)

session.setAttribute("source", source);

flight.destroy();

rd.forward(request, response);

}

}

**AddAirlineController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import com.scode.admin.model.Airline;

import com.scode.admin.model.Place;

/\*\*

\* Servlet implementation class AddPlaceController

\*/

@WebServlet("/addairline")

public class AddAirlineController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AddAirlineController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

if (session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

} else if (request.getParameter("airline") == null) {

RequestDispatcher rd = request.getRequestDispatcher("admin\_dashboard.jsp");

rd.forward(request, response);

} else {

String name = request.getParameter("airline");

RequestDispatcher rd = request.getRequestDispatcher("admin\_result.jsp");

Airline airline = new Airline();

airline.setName(name);

int result = airline.addPlace();

if (result == -1) {

request.setAttribute("message", "Airline already exists in database. Please enter a new airline.");

} else {

request.setAttribute("message", name + " added succesfully into database");

}

airline.destroy();

rd.forward(request, response);

}

}

}

**AddFlightController.java**

package com.scode.admin.controllers;

import java.io.IOException;

import com.scode.admin.model.Flight;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

/\*\*

\* Servlet implementation class AddFlightController

\*/

@WebServlet("/addflight")

public class AddFlightController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AddFlightController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

if (session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

} else if (request.getParameter("flightid") == null) {

RequestDispatcher rd = request.getRequestDispatcher("admin\_dashboard.jsp");

rd.forward(request, response);

} else {

String id = request.getParameter("flightid");

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

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

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

int seats = Integer.parseInt(request.getParameter("seats"));

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

double price = Double.parseDouble(request.getParameter("price"));

Flight flight = new Flight();

flight.setId(id);

flight.setSource(source);

flight.setDestination(destination);

flight.setAirline(airline);

flight.setSeats(seats);

flight.setDate(date);

flight.setPrice(price);

RequestDispatcher rd = request.getRequestDispatcher("admin\_result.jsp");

if (source == destination) {

request.setAttribute("message",

"Source and destination are same. Please enter different source and destination");

}

int result = flight.addFlight();

if (result == -1) {

request.setAttribute("message", "Airline " + airline

+ " does not exist in database. Please use existing airline or create a new airline");

}

if (result == -2) {

request.setAttribute("message", "Source " + source

+ " does not exist in database. Please use existing places or create a new place");

}

if (result == -3) {

request.setAttribute("message", "Destination " + destination

+ " does not exist in database. Please use existing places or create a new place");

}

if (result == -4) {

request.setAttribute("message",

"Flight id " + id + " already exists in database. Please use new flight id");

}

if (result > 0) {

request.setAttribute("message", "Flight " + flight.toString() + " created successfully");

}

flight.destroy();

rd.forward(request, response);

// System.out.println(request.getParameter("date"));

// System.out.println(flight.toString());

}

}

}

**AddplaceController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import com.scode.admin.model.Place;

/\*\*

\* Servlet implementation class AddPlaceController

\*/

@WebServlet("/addplace")

public class AddPlaceController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AddPlaceController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

if (session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

} else if (request.getParameter("place") == null) {

RequestDispatcher rd = request.getRequestDispatcher("admin\_dashboard.jsp");

rd.forward(request, response);

} else {

String name = request.getParameter("place");

RequestDispatcher rd = request.getRequestDispatcher("admin\_result.jsp");

Place place = new Place();

place.setName(name);

int result = place.addPlace();

if (result == -1) {

request.setAttribute("message", "Place already exists in database. Please enter a new place.");

} else {

request.setAttribute("message", name + " added succesfully into database");

}

place.destroy();

rd.forward(request, response);

}

}

}

**ChangePasswordController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import com.scode.admin.model.Admin;

/\*\*

\* Servlet implementation class ChangePasswordController

\*/

@WebServlet("/change")

public class ChangePasswordController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ChangePasswordController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

if (session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

} else if (request.getParameter("password") == null) {

RequestDispatcher rd = request.getRequestDispatcher("admin\_dashboard.jsp");

rd.forward(request, response);

} else {

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

Admin admin = new Admin();

int result = admin.updatePassword(password);

RequestDispatcher rd = request.getRequestDispatcher("admin\_result.jsp");

System.out.println(result);

if (result > 0) {

request.setAttribute("message", "Password updated succesfully");

} else {

request.setAttribute("message", "Password not updated. Please try again later.");

}

admin.destroy();

// System.out.println(request.getAttribute("message"));

rd.forward(request, response);

}

}

}

**LoginController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import com.scode.admin.model.Admin;

/\*\*

\* Servlet implementation class LoginController

\*/

@WebServlet("/login")

public class LoginController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public LoginController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doPost(request, response);

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

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

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

RequestDispatcher rd = null;

Admin admin = new Admin();

admin.setPassword(password);

admin.setUsername(username);

boolean isValid = admin.validate();

if (isValid) {

rd = request.getRequestDispatcher("admin\_dashboard.jsp");

} else {

rd = request.getRequestDispatcher("admin\_loginerror.jsp");

}

if(session.getAttribute("isValid") == null)

session.setAttribute("isValid", isValid);

admin.destroy();

rd.forward(request, response);

}

}

**LogoutController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.util.ArrayList;

import com.scode.admin.model.Airline;

/\*\*

\* Servlet implementation class LogoutController

\*/

@WebServlet("/logout")

public class LogoutController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public LogoutController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

HttpSession session = request.getSession();

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

if (session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

rd.forward(request, response);

} else {

session.invalidate();

rd.forward(request, response);

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

**ShowAirlinesController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.util.ArrayList;

import com.scode.admin.model.Airline;

import com.scode.admin.model.Place;

/\*\*

\* Servlet implementation class ShowPlacesController

\*/

@WebServlet("/showairlines")

public class ShowAirlinesController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ShowAirlinesController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

HttpSession session = request.getSession();

if(session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

}else {

Airline airline = new Airline();

ArrayList<String> airlines = airline.getAirlines();

RequestDispatcher rd = request.getRequestDispatcher("admin\_showairlines.jsp");

if(airlines.isEmpty()) {

request.setAttribute("message", "No airlines found in database");

}else {

request.setAttribute("message", "Found below airlines in database");

}

request.setAttribute("airlines", airlines);

airline.destroy();

rd.forward(request, response);

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

**ShowBookingsController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.util.ArrayList;

import com.scode.admin.model.Airline;

import com.scode.admin.model.Place;

import com.scode.user.model.Booking;

/\*\*

\* Servlet implementation class ShowPlacesController

\*/

@WebServlet("/showbookings")

public class ShowBookingsController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ShowBookingsController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

HttpSession session = request.getSession();

if(session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

}else {

Booking booking = new Booking();

ArrayList<Booking> bookings = booking.getBookings();

RequestDispatcher rd = request.getRequestDispatcher("admin\_showbookings.jsp");

if(bookings.isEmpty()) {

request.setAttribute("message", "No bookings found in database");

}else {

request.setAttribute("message", "Found below bookings in database");

}

request.setAttribute("bookings", bookings);

booking.destroy();

rd.forward(request, response);

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

**ShowFlightsController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.util.ArrayList;

import com.scode.admin.model.Airline;

import com.scode.admin.model.Flight;

import com.scode.admin.model.Place;

import com.scode.user.model.Booking;

/\*\*

\* Servlet implementation class ShowPlacesController

\*/

@WebServlet("/showflights")

public class ShowFlightsController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ShowFlightsController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

HttpSession session = request.getSession();

if(session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

}else {

Flight flight = new Flight();

ArrayList<Flight> flights = flight.getBookings();

RequestDispatcher rd = request.getRequestDispatcher("admin\_showflights.jsp");

if(flights.isEmpty()) {

request.setAttribute("message", "No flights found in database");

}else {

request.setAttribute("message", "Found below flights in database");

}

request.setAttribute("flights", flights);

flight.destroy();

rd.forward(request, response);

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}

**ShowPlacesController.java**

package com.scode.admin.controllers;

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.util.ArrayList;

import com.scode.admin.model.Place;

/\*\*

\* Servlet implementation class ShowPlacesController

\*/

@WebServlet("/showplaces")

public class ShowPlacesController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public ShowPlacesController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

HttpSession session = request.getSession();

if(session.getAttribute("isValid") == null || session.getAttribute("isValid") == "false") {

RequestDispatcher rd = request.getRequestDispatcher("admin\_index.jsp");

rd.forward(request, response);

}else {

Place place = new Place();

ArrayList<String> places = place.getPlaces();

RequestDispatcher rd = request.getRequestDispatcher("admin\_showplaces.jsp");

if(places.isEmpty()) {

request.setAttribute("message", "No places found in database");

}else {

request.setAttribute("message", "Found below places in database");

}

request.setAttribute("places", places);

place.destroy();

rd.forward(request, response);

}

}

/\*\*

\* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// TODO Auto-generated method stub

doGet(request, response);

}

}