**Source Code for FlyAway:**

1. **Connection.util.java:**

package com.flightbooking.database;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.ArrayList;

import java.util.HashMap;

import java.util.List;

import com.simplelearn.util.StringUtil;

public class ConnectionUtil {

public Connection con=null;

public Statement st=null;

public ConnectionUtil() throws ClassNotFoundException, SQLException{

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

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/flyaway","root","Vyshi@1432");

System.out.println("connection established with 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;

}

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("password")+"','"+user.get("name")+"',' "+user.get("phno")+"','"+user.get("adno")+"')";

try {

st.execute(query);

return true;

} catch (SQLException e) {

e.printStackTrace();

}

return false;

}

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', 'time', 'price') values(?,?,?,?,?,?)");

//String sql="INSERT INTO flights ('name','from','to','date','time','price')values("+flight.get("name")+"','"+flight.get("from")+"','"+flight.get("to")+"','"+flight.get("date")+"','"+flight.get("time")+"','"+flight.get("price")+"');";String query1 = "INSERT INTO flights (name, fromf, tof, datef, timef, price)VALUES" + " ('"+ StringUtil.fixSqlFieldValue(flight.get("name")) + "'," + " '"+ StringUtil.fixSqlFieldValue(flight.get("from")) + "'," + " '"+ StringUtil.fixSqlFieldValue(flight.get("to")) + "'," + " '" +StringUtil.fixSqlFieldValue(flight.get("date")) + "'," + " '"+ StringUtil.fixSqlFieldValue(flight.get("time")) + "'," + " '"+ StringUtil.fixSqlFieldValue(flight.get("price")) + "')");

//String sql="INSERT INTO `flyaway`.`flights` (`name`, `fromf`, `tof`,`datef`, `timef`, `price`) VALUES ('indigo', 'hyd', 'viz', '2021-04-08', '10:00','2000');";

String query1 = "INSERT INTO flights (name, fromf, tof, datef, timef, price) VALUES" + "('"+ StringUtil.fixSqlFieldValue(flight.get("name")) + "'," + " '" + StringUtil.fixSqlFieldValue(flight.get("from")) + "'," + " '" + StringUtil.fixSqlFieldValue(flight.get("to")) + "'," + " '" +StringUtil.fixSqlFieldValue(flight.get("date")) + "'," + " '"+ StringUtil.fixSqlFieldValue(flight.get("time")) + "'," + " '"+ StringUtil.fixSqlFieldValue(flight.get("price")) + "')";

System.out.println(flight.get("date"));

System.out.println(flight.get("time"));

//String query1="INSERT into flyaway.flights (name,from,to,date,time,price) values('indigo','hyd','viz','24-02-2022','10:30','2000')";

try {

//stm.execute();

st.execute(query1);

return true;

} catch (SQLException e) {

System.out.print("error");

e.printStackTrace();

}

return false;

}

}

1. **FlightInsert.java:**

package com.flightbooking.servlets;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import java.io.IOException;

import java.sql.SQLException;

import java.util.HashMap;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.flightbooking.database.ConnectionUtil;

@WebServlet("/InsertFlight")

public class FlightInsert extends HttpServlet {

private static final long serialVersionUID = 1L;

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

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

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

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

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

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

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

HashMap<String,String> flight=new HashMap<>();

flight.put("name", name);

flight.put("from", from);

flight.put("to", to);

flight.put("date", departure);

flight.put("time", time);

flight.put("price", price);

try {

ConnectionUtil dao=new ConnectionUtil();

HttpSession session=request.getSession();

if(dao.insertFlight(flight)) {

session.setAttribute("message", "Flight Added Successfully");

}

else {

session.setAttribute("message", "Invalid Details");

}

} catch (ClassNotFoundException | SQLException e) {

// TODO Auto-generated catch block

System.out.print("error");

e.printStackTrace();

}

response.sendRedirect("AdminHome.jsp");

}

}

1. **ListOfFlights.java:**

package com.flightbooking.servlets;

import java.io.IOException;

import java.sql.SQLException;

import java.util.List;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.flightbooking.database.ConnectionUtil;

@WebServlet("/FlightList")

public class ListOfFlights extends HttpServlet {

private static final long serialVersionUID = 1L;

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

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

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

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

try {

ConnectionUtil dao = new ConnectionUtil();

List<String[]> flights=dao.getAvailableFlights(from, to,

departure);

HttpSession session=request.getSession();

session.setAttribute("flights", flights);

} catch (ClassNotFoundException | SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

response.sendRedirect("FlightList.jsp");

}

}

1. **LoginOfAdmin.java:**

package com.flightbooking.servlets;

import java.io.IOException;

import java.sql.SQLException;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.flightbooking.database.ConnectionUtil;

@WebServlet("/AdminLogin")

public class LoginOfAdmin extends HttpServlet {

private static final long serialVersionUID = 1L;

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

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

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

try {

ConnectionUtil dao=new ConnectionUtil();

if(dao.checkAdmin(email,password)) {

response.sendRedirect("AdminHome.jsp");

}

else {

HttpSession session=request.getSession();

session.setAttribute("message", "Invalid Details");

response.sendRedirect("AdminPage.jsp");

}

} catch (ClassNotFoundException | SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

1. **LoginOfUser.java:**

package com.flightbooking.servlets;

import javax.servlet.annotation.WebServlet;

import java.io.IOException;

import java.sql.SQLException;

import java.util.HashMap;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.flightbooking.database.ConnectionUtil;

@WebServlet("/UserLogin")

public class LoginOfUser extends HttpServlet {

private static final long serialVersionUID = 1L;

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

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

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

try {

ConnectionUtil dao=new ConnectionUtil();

HashMap<String,String> user=dao.checkUser(email,password);

HttpSession session=request.getSession();

if(user!=null) {

session.setAttribute("user", user);

response.sendRedirect("HomePage.jsp");

}

else {

session.setAttribute("message", "Invalid Details");

response.sendRedirect("UserPage.jsp");

}

} catch (ClassNotFoundException | SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

1. **Logout.java:**

package com.flightbooking.servlets;

import javax.servlet.annotation.WebServlet;

import java.io.IOException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

@WebServlet("/Logout")

public class Logout extends HttpServlet {

private static final long serialVersionUID = 1L;

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

HttpSession session=request.getSession();

session.setAttribute("user", null);

response.sendRedirect("HomePage.jsp");

}

}

1. **RegistrationOfuser.java:**

package com.flightbooking.servlets;

import javax.servlet.annotation.WebServlet;

import java.io.IOException;

import java.sql.SQLException;

import java.util.HashMap;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.flightbooking.database.ConnectionUtil;

@WebServlet("/UserRegistration")

public class RegistrationOfuser extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doPost(HttpServletRequest request, HttpServletResponse

response) throws ServletException, IOException {

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

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

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

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

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

HashMap<String,String> user=new HashMap<>();

user.put("email", email);

user.put("password", password);

user.put("name", name);

user.put("phno", phno);

user.put("adno", adno);

try {

ConnectionUtil dao=new ConnectionUtil();

boolean result=dao.insertUser(user);

HttpSession session=request.getSession();

if(result) {

session.setAttribute("message", "User Added Successfully");

}

else {

session.setAttribute("message","Invalid Details");

}

} catch (ClassNotFoundException | SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

response.sendRedirect("UserPage.jsp");

}

}

**8. AdminHome.jsp:**

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

pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none ;font-size:35px;fontweight:bold;">Flight Booking</a><br><br>

<h1>Insert New Flight Details</h1>

<div style="border:3px solid black;width:25%;border-radius:20px;padding:20px"align="center">

<form action=InsertFlight method=post>

<label for=name>Name :-</label> <input type="text" name=name id=name/><br><br>

<label for=from>From :-</label> <input type="text" name=from id=from/><br><br>

<label for=to>To :-</label> <input type="text" name=to id=to /><br><br>

<label for=departure>Departure :-</label> <input type="date" name=departure id=departure /><br><br>

<label for=time>Time :-</label> <input type="time" name=time id=time/><br><br>

<label for=price>Price :-</label> <input type="text" name=price id=price/><br><br>

<input type=submit value=submit /> <input type=reset />

</form>

</div>

<%

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

if(message!=null){

%>

<p style="color:silver;"><%=message %></p>

<%

session.setAttribute("message", null);

}

%>

</body>

</html>

**9. AdminPage.jsp:**

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

pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none ;font-size:35px;fontweight:bold;">Flight Booking</a>

<br><br>

<h2>Admin Login</h2>

<div style="border:3px solid black;width:25%;border-radius:20px;padding:20px"

align="center">

<form action=AdminLogin method=post>

<label for=email>Email :-</label> <input type="email" name=email id=email/><br><br>

<label for=pass>Password :-</label> <input type="password" name=password id=pass /><br><br>

<input type=submit value=submit /> <input type=reset />

</form>

</div>

<a href=ForgotPassword.jsp style="font-size:25;color:red;">Forgot Password</a>

<%

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

if(message!=null){

%>

<p style="color:silver;"><%=message %></p>

<%

session.setAttribute("message", null);

}

%>

</body>

</html>

**10. BookFlight.jsp:**

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

pageEncoding="UTF-8"%>

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

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none ;font-size:35px;fontweight:bold;">Flight Booking</a>

<br><br>

<%

@SuppressWarnings("unchecked")

HashMap<String,String>

user=(HashMap<String,String>)session.getAttribute("user");

if(user==null){

response.sendRedirect("UserPage.jsp");

}

%>

<p align="center" style="color:green;font-size:40px;font-weight:bold">Flight

Booked Successfully</p>

</body>

</html>

**11. FlightList.jsp:**

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

pageEncoding="UTF-8"%>

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

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none;font-size:35px;fontweight:bold;">Flight Booking</a>

<br><br>

<%

@SuppressWarnings("unchecked")

List<String[]> flights=(List<String[]>)session.getAttribute("flights");

if(flights!=null){

%>

<h1>Available Flights</h1>

<table border="1">

<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>

<a href=BookFlight.jsp>Book Now</a>

<%

}

%>

<%

}

else{

%>

<h1>There are no available flights</h1>

<%

}

%>

</body>

</html>

**12. HomePage.jsp:**

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

pageEncoding="UTF-8"%>

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

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<h1>FlyAway</h1>

<div align="right">

<a href="AdminPage.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=UserPage.jsp>User Login</a>

<%

}

%>

<br><br>

<div style="border:5px solid black;width:25%;border-radius:20px;padding:20px" align="center">

<form action=FlightList method=post>

<label for=from>From :-</label> <input type=text name=from id=from/><br><br>

<label for=to>To :-</label> <input type=text name=to id=to/><br><br>

<label for=departure>Departure :-</label> <input type=date name=departure id=departure/><br><br>

<label for=travellers>Travellers :-</label> <input type=number name=travellers id=travellers/><br><br>

<input type=submit value=Search /> <input type=reset />

</form>

</div>

</body>

</html>

**13.ForgotPassword.jsp:**

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

pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none ;font-size:35px;fontweight:bold;">Flight Booking</a>

<br><br>

<div style="border:3px solid black;width:25%;border-radius:20px;padding:20px"

align="center">

<form action=ForgotPassword method=post>

<label for=email>Email :-</label> <input type="email" name=email id=email/><br><br>

<label for=pass>New Password :-</label> <input type="password" name=password id=pass /><br><br>

<input type=submit value=submit /> <input type=reset />

</form>

</div>

</body>

</html>

**14. UserPage.jsp:**

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

pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none ;font-size:35px;fontweight:bold;">Flight Booking</a>

<br><br>

<h2>User Login</h2>

<div style="border:2px solid black;width:25%;border-radius:20px;padding:20px"

align="center">

<form action=UserLogin method=post >

<table >

<tr>

<td><label for=email>Email</label><br></td>

<td><input type="email" name=email id=email /></td>

</tr>

<tr>

<td><label for=pass>Password</label><br></td>

<td><input type="password" name=password id=pass /></td>

</tr>

<tr>

<td><input type=submit value=submit /></td>

<td><input type=reset /></td>

</tr>

</table>

</form>

</div>

<br><br>

<i>New User-Create account</i>

<h4><a href=UserRegistration.jsp style="font-size:25;color:red;">Create

Account</a></h4>

<%

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

if(message!=null){

%>

<p style="color:silver;"><%=message %></p>

<%

session.setAttribute("message", null);

}

%>

</body>

**15. UserRegistration.jsp:**

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

pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Insert title here</title>

</head>

<body>

<br>

<a href=HomePage.jsp style="color:black;text-decoration:none ;font-size:35px;fontweight:bold;">Flight Booking</a>

<br><br>

<div style="border:3px solid black;width:25%;border-radius:20px;padding:20px" align="center">

<form action=UserRegistration method=post>

<label for=email>Email :-</label> <input type="email" name=email id=email/><br><br>

<label for=pass>Password :-</label> <input type="password" name=password id=pass /><br><br>

<label for=name>Name :-</label> <input type="text" name=name id=name/><br><br>

<label for=phno>Phone No. :-</label> <input type="text" name=phno id=phno/><br><br>

<label for=adno>Aadhaar No. :-</label> <input type="text" name=adno id=adno/><br><br>

<input type=submit value=submit /> <input type=reset />

</form>

</div>

</body>

</html>

**16. web.xml:**

<?xml version="1.0" encoding="UTF-8"?>

<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://xmlns.jcp.org/xml/ns/javaee" xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app\_4\_0.xsd" id="WebApp\_ID" version="4.0">

<display-name>FlyAway</display-name>

<welcome-file-list>

<welcome-file>UserRegistration.jsp</welcome-file>

<welcome-file>AdminHome.jsp</welcome-file>

<welcome-file>AdminPage.jsp</welcome-file>

<welcome-file>FlightList.jsp</welcome-file>

<welcome-file>BookFlight.jsp</welcome-file>

<welcome-file>ForgotPassword.jsp</welcome-file>

<welcome-file>HomePage.jsp</welcome-file>

<welcome-file>UserPage.jsp</welcome-file>

</welcome-file-list>

</web-app>

**17. pom.xml:**

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>Flyway</groupId>

<artifactId>Flyway</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>war</packaging>

<build>

<plugins>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.1</version>

<configuration>

<release>18</release>

</configuration>

</plugin>

<plugin>

<artifactId>maven-war-plugin</artifactId>

<version>3.2.3</version>

</plugin>

</plugins>

</build>

<dependencies>

<dependency>

<groupId>javax.servlet.jsp</groupId>

<artifactId>javax.servlet.jsp-api</artifactId>

<version>2.3.3</version>

<scope>provided</scope>

</dependency>

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>javax.servlet-api</artifactId>

<version>4.0.1</version>

<scope>provided</scope>

</dependency>

<dependency>

<groupId>mysql</groupId>

<artifactId>mysql-connector-java</artifactId>

<version>8.0.30</version>

</dependency>

</dependencies>

</project>

**18.String.Util.java:**

package com.simplelearn.util;

public class StringUtil {

public static String fixSqlFieldValue(String value) {

if (value == null) {

return null;

}

int length = value.length();

StringBuffer fixedValue = new StringBuffer((int)(length\*1.1));

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

char c = value.charAt(i);

if ( c == '\'') {

fixedValue.append("''");

}else {

fixedValue.append(c);

}

}

return fixedValue.toString();

}

public static String encodeHtmlTag(String tag) {

if (tag==null)

return null;

int length = tag.length();

StringBuffer encodedTag = new StringBuffer(2 \* length);

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

char c = tag.charAt(i);

if(c=='<')

encodedTag.append("<");

else if(c=='>')

encodedTag.append(">");

else if(c=='&')

encodedTag.append("&amp;");

else if(c=='"')

encodedTag.append("&quot;");

else if(c==' ')

encodedTag.append("&nbsp;");

else

encodedTag.append(c);

}

return encodedTag.toString();

}

}