# Configuration file

package com.simplilearn.demo;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.util.Properties;

public class DBConfig {

public static Connection getConnection(Properties props) {

Connection conn = null;

String driver = props.getProperty("driver");

String url = props.getProperty("url");

String username = props.getProperty("username");

String password = props.getProperty("password");

try {

Class.forName(driver);

conn = DriverManager.getConnection(url, username, password);

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

return conn;

}

}

# Search Servlet

package com.simplilearn.demo;

import java.io.IOException;

import java.io.InputStream;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.Properties;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/flightSearch")

public class searchFlight extends HttpServlet{

@Override

protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

Properties props = new Properties();

InputStream in = getServletContext().getResourceAsStream("/WEB-INF/application.properties");

props.load(in);

Connection conn = DBConfig.getConnection(props);

resp.setContentType("text/html");

PrintWriter out = resp.getWriter();

int passenger = Integer.parseInt(req.getParameter("numPassengers"));

String from = req.getParameter("originCity");

String to = req.getParameter("destCity");

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

if(conn!=null) {

try {

out.print("Connection Established!");

String sql = "SELECT \* FROM flightList WHERE origin = ? AND destination = ?";

PreparedStatement stmt = conn.prepareStatement(sql);

stmt.setString(1, from);

stmt.setString(2, to);

ResultSet result = stmt.executeQuery();

if(result.next() && passenger>0) {

out.println("<center> <span style='color:green'><br> Following flight(s) are availabe on: " + date + "</span></center>");

do {

out.print("<br>" + "|> " + result.getString(2) + " >>>>> " + result.getString(3) + ", Departure: " + result.getString(4) + ", Arrival: "

+ result.getString(5) + ", Rs. " + result.getInt(6) + " " + "<a href=\"passengerInfo.jsp?numPassengers=" + passenger +"&flightId=" + result.getInt(1) + "\">Click to book</a>" + "<br>" );

}while(result.next());

}else {

out.print("No flight found!");

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

doGet(req, resp);

}

}

# Passenger Servlet

package com.simplilearn.demo;

import java.io.IOException;

import java.io.InputStream;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.util.ArrayList;

import java.util.List;

import java.util.Properties;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

*@WebServlet*("/PassengerServlet")

public class PassengerServlet extends HttpServlet{

*@Override*

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

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

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

PrintWriter out = response.getWriter();

List<Passenger> passengers = new ArrayList<>();

for(int i =1; i <= numPassengers; i++) {

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

int age = Integer.*parseInt*(request.getParameter("age" + i));

Passenger passenger = new Passenger(name, age);

passengers.add(passenger);

}

//Connection to the database

Properties props = new Properties();

InputStream in = getServletContext().getResourceAsStream("/WEB-INF/application.properties");

props.load(in);

Connection conn = DBConfig.*getConnection*(props);

response.setContentType("text/html");

PreparedStatement stmt = null;

ResultSet rs = null;

float price = 0.0f;

float totalPrice = 0.0f;

String departureAirport = null;

String arrivalAirport = null;

String departureTime = null;

String arrivalTime = null;

String date = null;

try {

// Prepare SQL query to retrieve the price of the flight

stmt = conn.prepareStatement("SELECT price, origin, destination, departure\_time, arrival\_time FROM flightList WHERE id = ?");

stmt.setInt(1, flightId);

// Execute the query and retrieve the result set

rs = stmt.executeQuery();

// Extract the price of the flight from the result set

if (rs.next()) {

price = rs.getFloat("price");

departureAirport = rs.getString("origin");

arrivalAirport = rs.getString("destination");

departureTime = rs.getString("departure\_time");

arrivalTime = rs.getString("arrival\_time");

}

// Calculate the total price for the booking

totalPrice = numPassengers \* price;

//out.print(totalPrice);

// Set the numPassengers and totalPrice as attributes of the request object

request.setAttribute("numPassengers", numPassengers);

request.setAttribute("totalPrice", totalPrice);

request.setAttribute("price", price);

request.setAttribute("flightId", flightId);

request.setAttribute("passengers", passengers);

request.setAttribute("departureAirport", departureAirport);

request.setAttribute("arrivalAirport", arrivalAirport);

request.setAttribute("departureTime", departureTime);

request.setAttribute("arrivalTime", arrivalTime);

// Forward the request to the payment JSP page

request.getRequestDispatcher("payment.jsp").forward(request, response);

//request.getRequestDispatcher("Ticket.jsp").forward(request, response);

response.sendRedirect("Ticket.jsp");

}catch (SQLException e) {

e.printStackTrace();

} finally {

try {

// Close the result set, statement and connection

if (rs != null) rs.close();

if (stmt != null) stmt.close();

if (conn != null) conn.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

}

# Admin Login

package com.simplilearn.demo;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\* Servlet implementation class LoginController

\*/

@WebServlet("/LoginController")

public class LoginController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public LoginController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

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

\*/

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

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

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

response.setContentType("text/html");

PrintWriter out = response.getWriter();

RequestDispatcher rd = null;

if(username.equalsIgnoreCase("Admin") && password.equals("password")) {

rd = request.getRequestDispatcher("admin.html");

out.println("<center> <span style='color:red'> Welcome Admin, Login Successful!</span></center>");

rd.include(request, response);

} else {

rd = request.getRequestDispatcher("login.html");

rd.include(request, response);

out.println("<center> <span style='color:red'> Invalid Credentials!! </span></center>");

}

}

}

# CRUD Servlets

## Create

package com.simplilearn.demo;

import java.io.IOException;

import java.io.InputStream;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.sql.Time;

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import java.util.Properties;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/save")

public class SaveServlet extends HttpServlet{

@Override

protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

Properties props = new Properties();

InputStream in = getServletContext().getResourceAsStream("/WEB-INF/application.properties");

props.load(in);

Connection conn = DBConfig.getConnection(props);

resp.setContentType("text/html");

PrintWriter out = resp.getWriter();

String from = req.getParameter("From");

String to = req.getParameter("To");

String depTimeStr = req.getParameter("Departure\_Time");

String arrTimeStr = req.getParameter("Arrival\_Time");

int price = Integer.parseInt(req.getParameter("Price"));

if(conn!=null) {

try {

out.print("<center> <span style='color:blue'><h3>Connection Established!<h3></center></span>");

String sql = "INSERT INTO flightList(origin, destination, departure\_time, arrival\_time, price) VALUES (?, ?, ?, ?, ?)";

PreparedStatement stmt = conn.prepareStatement(sql);

stmt.setString(1, from);

stmt.setString(2, to);

stmt.setString(3, depTimeStr);

stmt.setString(4, arrTimeStr);

stmt.setInt(5, price);

int rowsInserted = stmt.executeUpdate();

if(rowsInserted > 0) {

System.out.println("A new flight has been added to the database.");

out.println("<center> <span style='color:red'><br><h3> A new flight has been added to the database <h3></span></center>");

}else {

out.print("<center> <span style='color:red'><br> Error! </span></center>");

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

doGet(req, resp);

//resp.sendRedirect("index.html");

}

}

## Retrieve

package com.simplilearn.demo;

import java.io.IOException;

import java.io.InputStream;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.Properties;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/fetch")

public class fetchServlet extends HttpServlet{

@Override

protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

Properties props = new Properties();

InputStream in = getServletContext().getResourceAsStream("/WEB-INF/application.properties");

props.load(in);

Connection conn = DBConfig.getConnection(props);

resp.setContentType("text/html");

PrintWriter out = resp.getWriter();

if(conn!=null) {

try {

out.print("<center> <span style='color:blue'><h3>Connection Established!<h3></span></center>");

Statement stmt = conn.createStatement();

ResultSet result = stmt.executeQuery("SELECT \* FROM flightList");

while(result.next()) {

out.print("<br>" + result.getInt(1) + ". " + result.getString(2) + " >>>>> " + result.getString(3) + ", " + result.getString(4) + ", "

+ result.getString(5) + ", Rs. " + result.getInt(6) + "<br>");

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

doGet(req, resp);

}

}

## Update

package com.simplilearn.demo;

import java.io.IOException;

import java.io.InputStream;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.util.Properties;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/update")

public class UpdateServlet extends HttpServlet{

@Override

protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

Properties props = new Properties();

InputStream in = getServletContext().getResourceAsStream("/WEB-INF/application.properties");

props.load(in);

Connection conn = DBConfig.getConnection(props);

resp.setContentType("text/html");

PrintWriter out = resp.getWriter();

int id = Integer.parseInt(req.getParameter("id"));

String from = req.getParameter("From");

String to = req.getParameter("To");

String depTimeStr = req.getParameter("Departure\_Time");

String arrTimeStr = req.getParameter("Arrival\_Time");

int price = Integer.parseInt(req.getParameter("Price"));

if(conn!=null) {

try {

out.print("Connection Established!");

String sql = "UPDATE flightList SET origin = ?, destination = ?, departure\_time = ?, arrival\_time = ?, price = ? WHERE id = ?";

PreparedStatement stmt = conn.prepareStatement(sql);

stmt.setString(1, from);

stmt.setString(2, to);

stmt.setString(3, depTimeStr);

stmt.setString(4, arrTimeStr);

stmt.setInt(5, price);

stmt.setInt(6, id);

int rowsInserted = stmt.executeUpdate();

if(rowsInserted > 0) {

System.out.println("FlightList has been Updated.");

out.println("<center> <span style='color:red'><br> FlightList has been Updated! </span></center>");

}else {

out.print("Data not added");

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

doGet(req, resp);

}

}

## Delete Servlet

package com.simplilearn.demo;

import java.io.IOException;

import java.io.InputStream;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.util.Properties;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/delete")

public class deleteServlet extends HttpServlet{

@Override

protected void doGet(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

Properties props = new Properties();

InputStream in = getServletContext().getResourceAsStream("/WEB-INF/application.properties");

props.load(in);

Connection conn = DBConfig.getConnection(props);

resp.setContentType("text/html");

PrintWriter out = resp.getWriter();

int id = Integer.parseInt(req.getParameter("id"));

if(conn!=null) {

try {

out.print("<center> <span style='color:blue'><h3>Connection Established!<h3></span></center>");

String sql = "DELETE FROM flightList where id = ?";

PreparedStatement stmt = conn.prepareStatement(sql);

stmt.setInt(1, id);

int rowsInserted = stmt.executeUpdate();

if(rowsInserted > 0) {

System.out.println("FlightList has been Updated.");

out.println("<center> <span style='color:red'><br> <h3>Flight removed from list! <h3></span></center>");

}else {

out.print("Data not added");

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

doGet(req, resp);

}

}

# Index.html

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**div** align=*"center"*>

<**h1**>FlyAway Flights</**h1**>

<**form** action=*"flightSearch"* method=*"post"*/>

Origin: <**input** type=*"text"* name=*"originCity"* placeholder=*"Enter origin city"*/><**br**/>

Destination: <**input** type=*"text"* name=*"destCity"* placeholder=*"Enter destination city"*/><**br**/>

Date: <**input** type=*"date"* name=*"date"* placeholder=*"Enter date"*/></**br**>

Passengers: <**input** type=*"number"* name=*"numPassengers"* placeholder=*"Enter number of passenger"*/><**br**>

<**input** type=*"submit"* name=*"Search"*/>

</**form**>

</**div**>

<**a** href=*"login.html"*>Click here for admin login</**a**>

</**body**>

</**html**>

# PassengerInfo.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**>

<**h1**>Enter Passenger Information</**h1**>

<%

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

int numPassengers = Integer.parseInt(request.getParameter("numPassengers")); %>

<**form** method=*"post"* action=*"PassengerServlet?numPassengers=*<%=numPassengers%>*&flightId=*<%=flightId%>*"*>

<%

for(int i = 1; i <= numPassengers; i++){

%>

<**fieldset**>

<**legend**>Passenger <%= i %> Information</**legend**>

Name: <**input** type=*"text"* name=*"name*<%=i %>*"* required><**br**>

Age: <**input** type=*"number"* name=*"age*<%=i %>*"* required><**br**>

</**fieldset**>

<%

}

%>

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

</**form**>

</**body**>

</**html**>

# Payment.jsp

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Payment Page</**title**>

</**head**>

<**body**>

<**h1**>Payment Details</**h1**>

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

<**label** for=*"price"*>Passengers:</**label**>

<**input** type=*"text"* id=*"numPassengers"* name=*"numPassengers"* readonly=*"readonly"* value=*"*${numPassengers}*"* /><**br** />

<**label** for=*"price"*>Price:</**label**>

<**input** type=*"text"* id=*"price"* name=*"price"* readonly=*"readonly"* value=*"*${price}*"* /><**br** />

<**label** for=*"price"*>Total Price:</**label**>

<**input** type=*"text"* id=*"totalPrice"* name=*"totalPrice"* readonly=*"readonly"* value=*"*${totalPrice}*"* /><**br** />

<**label** for=*"name"*>Name on Card:</**label**>

<**input** type=*"text"* id=*"name"* name=*"name"* required /><**br** />

<**label** for=*"cardNumber"*>Card Number:</**label**>

<**input** type=*"text"* id=*"cardNumber"* name=*"cardNumber"* /><**br** />

<**label** for=*"expiryMonth"*>Expiration Month:</**label**>

<**input** type=*"text"* id=*"expiryMonth"* name=*"expiryMonth"* /><**br** />

<**label** for=*"expiryYear"*>Expiration Year:</**label**>

<**input** type=*"text"* id=*"expiryYear"* name=*"expiryYear"* /><**br** />

<**label** for=*"cvv"*>CVV:</**label**>

<**input** type=*"text"* id=*"cvv"* name=*"cvv"* /><**br** />

<**label** for=*"address"*>Billing Address:</**label**>

<**textarea** id=*"address"* name=*"address"* ></**textarea**><**br** />

<**input** type=*"submit"* value=*"Pay Now"* />

</**form**>

</**body**>

</**html**>

# Ticket.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**>

<**h1**>Thank you for booking with us!</**h1**>

<**h2**>Flight Details</**h2**>

<**p**>Flight ID: ${flightId}</**p**>

<**p**>From: ${departureAirport}</**p**>

<**p**>To: ${arrivalAirport}</**p**>

<**p**>Departure Time: ${departureTime}</**p**>

<**p**>Arrival Time: ${arrivalTime}</**p**>

<**p**>Total Price: ${price\*numPassengers}</**p**>

<**h2**>Passenger Details</**h2**>

<**p**><**b**>${passengers.toString()}</**b**></**p**>

</**body**>

</**html**>

# Admin Login

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Insert title here</**title**>

</**head**>

<**body**>

<**div** align=*"center"*>

<**h2**>Admin Login</**h2**>

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

Enter Username: <**input** type=*"text"* name=*"username"*/><**br**/>

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

<**input** type=*"submit"* name=*"Login"*/>

</**form**>

</**div**>

</**body**>

</**html**>

# CRUD Page

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>FlyAway</**title**>

</**head**>

<**body**>

<**h1**><**b**>FlyAway</**b**> Admin Access Portal </**h1**>

<**br**>

<**h2**>Add a flight to flightList</**h2**>

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

From: <**input** type=*"text"* name=*"From"* placeholder=*"Enter a city"*><**br**>

To: <**input** type=*"text"* name=*"To"* placeholder=*"Enter a city"*><**br**>

Departure Time: <**input** type=*"time"* name=*"Departure\_Time"* placeholder=*"Enter departure time"*><**br**>

Arrival Time: <**input** type=*"time"* name=*"Arrival\_Time"* placeholder=*"Enter arrival time"*><**br**>

Price: <**input** type=*"number"* name=*"Price"* placeholder=*"Enter the price"*><**br**>

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

</**form**>

<**br**><**br**>

+++++++++++++++++++++++++++++++++++++++++++++++++

<**br**><**br**>

<**h2**>Update a flight to flightList</**h2**>

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

Flight ID: <**input** type=*"number"* name=*"id"* placeholder=*"Enter ID to update"*><**br**>

From: <**input** type=*"text"* name=*"From"* placeholder=*"Enter a city"*><**br**>

To: <**input** type=*"text"* name=*"To"* placeholder=*"Enter a city"*><**br**>

Departure Time: <**input** type=*"time"* name=*"Departure\_Time"* placeholder=*"Enter departure time"*><**br**>

Arrival Time: <**input** type=*"time"* name=*"Arrival\_Time"* placeholder=*"Enter arrival time"*><**br**>

Price: <**input** type=*"number"* name=*"Price"* placeholder=*"Enter the price"*><**br**>

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

</**form**>

<**br**><**br**>

+++++++++++++++++++++++++++++++++++++++++++++++++

<**br**><**br**>

<**h2**>Update a flight to flightList</**h2**>

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

Flight ID: <**input** type=*"number"* name=*"id"* placeholder=*"Enter ID to delete"*><**br**>

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

</**form**>

<**br**><**br**>

+++++++++++++++++++++++++++++++++++++++++++++++++

<**br**><**br**>

<**a** href=*"fetch"*><**h2**>See the list</**h2**></**a**>

<**br**>

+++++++++++++++++++++++++++++++++++++++++++++++++

</**body**>

</**html**>

# 