Note-I have mentioned comments in between with red color which is not part of code. Please install TomCat version 9 to avoid any discrepancies in the process

Note:Please add your username and password of sql in each servlet code to avoid errors

Step1- Open MySql workbench and write the below commands and run:

///////////////////////////////////////////////////////////////////////////////////////

use flyaway;

create table flights(

flightnumber int primary key auto\_increment,

source varchar(40),

destination varchar(40),

time varchar(40),

duration int,

price int

);

///////////////////////////////////////////////////////////////////////////////////////

Step 2: Open Eclipse ID and follow below steps:

* Right click on webapp->New->HTML file->give name as add.html. Paste the below code in add.html

////////////////////////////////////////////////////////////////////////////

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Add Flight</**title**>

</**head**>

<**body**>

<**h3** align=*"right"*><**a** href=*"1.html"*>Back</**a**></**h3**>

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

<**h1** align=*"center"*>Add Flight</**h1**>

<**h3** align=*"center"*>Note:Please enter details properly as the same will be visible to the Customers</**h3**>

<**h3**>

<**form** align=*"center"* action=*"AddFlight"* method=*"post"*>

Source:<**input** type=*"text"* name=*"source"*><**br**><**br**>

Destination:<**input** type=*"text"* name=*"destination"*><**br**><**br**>

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

Time:<**input** type=*"text"* name=*"time"*><**br**><**br**>

Duration(in hrs):<**input** type=*"number"* name=*"duration"*><**br**><**br**>

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

</**form**>

</**h3**>

</**body**>

</**html**>

Note:Above code will create a html page where admin can add flights.

///////////////////////////////////////////////////////////////////////////////////

* Now right click on com.admin->New-> Servlet->Give name as AddFlight.java->next->next->Check only doPost box and click finish. Paste the below code in AddFlight.java

////////////////////////////////////////////////////////////////////////////////////////////

package com.admin;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

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 AddFlight

\*/

@WebServlet("/AddFlight")

public class AddFlight extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AddFlight() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

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

\*/

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

PrintWriter pw=response.getWriter();

try{

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

String user="root";

String password="Atharv1812";

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

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

if(!request.getParameter("source").equals(request.getParameter("destination"))) {

PreparedStatement ps=con.prepareStatement("insert into flights(source,destination,time,duration,price) values(?,?,?,?,?)");

ps.setString(1, request.getParameter("source"));

ps.setString(2, request.getParameter("destination"));

ps.setString(3, request.getParameter("time"));

ps.setInt(4, Integer.parseInt(request.getParameter("duration")));

ps.setInt(5, Integer.parseInt(request.getParameter("price")));

ps.executeUpdate();

ps.close();

request.getRequestDispatcher("add.html").include(request, response);

pw.println("<center><SPAN style='color:green'>Flight Added Successfully</SPAN></center>");

}

else {

request.getRequestDispatcher("add.html").include(request, response);

pw.println("<center><SPAN style='color:red'>Source And Destination cannot be same</SPAN></center>");

}

}

catch (Exception e) {

pw.print(e);

}

}

}

Note:Above code will help you to add flight details in backend that is in SQL database

/////////////////////////////////////////////////////////////////////////////////////

We have completed ADD Flight process now.

Step 3:Delete Flight process. Follow below steps:

* Right click on com.admin->New->Servlet->give name as FlightsServ.java->next->next->check doPost box only and click finish. Paste below code in FlightsServ.java

/////////////////////////////////////////////////////////////////////////////////////////

package com.admin;

import java.io.IOException;

import java.sql.SQLException;

import java.util.List;

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 FlightsServ

\*/

@WebServlet("/FlightsServ")

public class FlightsServ extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public FlightsServ() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

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

\*/

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

try {

List<Flights> flightlist=FlightsDB.getFlightsList();

request.setAttribute("flightlist", flightlist);

} catch (ClassNotFoundException | SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

RequestDispatcher dispatcher=request.getRequestDispatcher("show-flights.jsp");

dispatcher.forward(request, response);

}

}

Note:Above code will collect all data about the flights from database and forward it to show-flights.jsp. There it will ask the flight number to delete and it will delete it if you click delete.

Above code will give error as we have not created Flights class to track it.

////////////////////////////////////////////////////////////////////////////////

* Right click on com.admin->New->Class->give name as Flights.java.Paste the below code in Flights.java.

/////////////////////////////////////////////////////////////////////////////////

package com.admin;

public class Flights {

private int flightNumber;

private String source;

private String destination;

private String time;

private int duration;

private int price;

public int getFlightNumber() {

return flightNumber;

}

public void setFlightNumber(int flightNumber) {

this.flightNumber = flightNumber;

}

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 getTime() {

return time;

}

public void setTime(String time) {

this.time = time;

}

public int getDuration() {

return duration;

}

public void setDuration(int duration) {

this.duration = duration;

}

public int getPrice() {

return price;

}

public void setPrice(int price) {

this.price = price;

}

public Flights(int flightNumber, String source, String destination, String time, int duration, int price) {

this.flightNumber = flightNumber;

this.source = source;

this.destination = destination;

this.time = time;

this.duration = duration;

this.price = price;

}

}

//////////////////////////////////////////////////////////////////////////////////

* Right click on com.admin->New->Class->Give name as FlightsDB.java.Paste the below code in FlightsDB.java

////////////////////////////////////////////////////////////////////////////////

package com.admin;

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.List;

public class FlightsDB {

public static List<Flights> getFlightsList() throws ClassNotFoundException, SQLException{

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

String userName="root";

String password="Atharv1812";

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

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

Connection con=DriverManager.getConnection(url,userName,password);

Statement stmt=con.createStatement();

ResultSet rs=stmt.executeQuery("select \* from flights");

while(rs.next()) {

int flightnumber=rs.getInt(1);

String source=rs.getString(2);

String destination=rs.getString(3);

String time=rs.getString(4);

int duration=rs.getInt(5);

int price=rs.getInt(6);

Flights f=new Flights(flightnumber,source,destination,time,duration,price);

flights.add(f);

}

return flights;

}

}

Note:The error for FlightsServ.java will go now.

/////////////////////////////////////////////////////////////////////////////////////

* Now we will code for show-flights.jsp
* Right click on webapp->New->JSP file->give name as show-flights.jsp. Paste the below code in show-flights.jsp

////////////////////////////////////////////////////////////////////////////////////

<%@**taglib** prefix=*"c"* uri=*"http://java.sun.com/jsp/jstl/core"* %>

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

pageEncoding=*"UTF-8"*%>

<!**DOCTYPE** html>

<**html**>

<**head**>

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

<**title**>Flights List</**title**>

</**head**>

<**body**>

<**h3** align=*"right"*><**a** href=*"1.html"*>Back</**a**></**h3**>

<**h1** align=*"center"*>Available Flights</**h1**>

<**table** border=*"1"* cellpadding=*"30%"* align=*"center"* bgcolor=*"skyblue"*>

<**tr**>

<**th**>FlightNumber</**th**>

<**th**>Source</**th**>

<**th**>Destination</**th**>

<**th**>Time</**th**>

<**th**>Duration</**th**>

<**th**>Price</**th**>

</**tr**>

<**c:forEach** var=*"items"* items=*"*${flightlist}*"*>

<**tr**>

<**td**>${items.flightNumber}</**td**>

<**td**>${items.source}</**td**>

<**td**>${items.destination}</**td**>

<**td**>${items.time}</**td**>

<**td**>${items.duration}</**td**>

<**td**>${items.price}</**td**>

</**tr**>

</**c:forEach**>

</**table**>

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

<**h2** align=*"center"*>Please enter the flight you want to delete</**h2**>

<**h2**><**form** action=*"Delete"* method=*"post"* align=*"center"*>

Flight Number:<**input** type=*"number"* name=*"flightnos"*><**br**><**br**>

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

</**form**></**h2**>

</**body**>

</**html**>

Note:Above code will collect the flightnumber to delete and it will delete it with help of Delete.java

////////////////////////////////////////////////////////////////////////////////////////////

Now we will code for Delete.java

* Right click on com.admin->New->Servlet->give name as Delete.java. Paste the below code in Delete.java

////////////////////////////////////////////////////////////////////////////////

package com.admin;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

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 Delete

\*/

@WebServlet("/Delete")

public class Delete extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public Delete() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

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

\*/

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

PrintWriter pw=response.getWriter();

try{

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

String user="root";

String password="Atharv1812";

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

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

PreparedStatement ps=con.prepareStatement("delete from flights where flightnumber=?");

ps.setString(1, request.getParameter("flightnos"));

ps.executeUpdate();

ps.close();

request.getRequestDispatcher("show-flights.jsp").include(request, response);

pw.println("<center><SPAN style='color:green'>Flight Deleted Successfully or entered Flight Number doesn't exist</SPAN></center>");

}

catch (Exception e) {

pw.print(e);

}

}

}

Note:This code will delete the flight for you in database.