**Project objective**

As a Full Stack Developer, design and develop an airline booking portal named as FlyAway. Use the GitHub repository to manage the project artifacts.

**Problem Statement**

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

**Source Code**

Model – HibernateUtil

package com.org.model;

import org.hibernate.SessionFactory;

import org.hibernate.boot.Metadata;

import org.hibernate.boot.MetadataSources;

import org.hibernate.boot.registry.StandardServiceRegistry;

import org.hibernate.boot.registry.StandardServiceRegistryBuilder;

public class HibernateUtil {

private static SessionFactory sessionFactory;

static {

try {

StandardServiceRegistry registery=

new StandardServiceRegistryBuilder().configure("hibernate.cfg.xml").build();

Metadata metadata= new MetadataSources(registery).getMetadataBuilder().build();

sessionFactory= metadata.getSessionFactoryBuilder().build();

} catch (Exception e) {

e.printStackTrace();

}

}

public static SessionFactory getSessionFactory() {

return sessionFactory;

}

}

Entity – Admin

package com.org.entity;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name="AdminDetails")

public class Admin {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name="AdminID")

private int aid;

private String Username;

private String Password;

public Admin() {

}

public Admin(int aid, String username, String password) {

super();

this.aid = aid;

this.Username = username;

this.Password = password;

}

public int getAid() {

return aid;

}

public void setAid(int aid) {

this.aid = aid;

}

public String getUsername() {

return Username;

}

public void setUsername(String username) {

this.Username = username;

}

public String getPassword() {

return Password;

}

public void setPassword(String password) {

this.Password = password;

}

@Override

public String toString() {

return "Admin [aid=" + aid + ", Username=" + Username + ", Password=" + Password + "]";

}

}

Entity – Flight

package com.org.entity;

import java.math.BigDecimal;

import java.util.Date;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name="FlightDetails")

public class Flight {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name="FlightID")

private int fid;

private String AirlineName;

@Column(name="DateOpert")

private Date date;

private String Source;

private String Destination;

private BigDecimal T\_Price;

public Flight() {

}

public Flight(int fid, String aname, Date date, String src, String dest, BigDecimal price) {

super();

this.fid = fid;

this.AirlineName = aname;

this.date = date;

this.Source = src;

this.Destination = dest;

this.T\_Price = price;

}

public int getFid() {

return fid;

}

public void setFid(int fid) {

this.fid = fid;

}

public String getAname() {

return AirlineName;

}

public void setAname(String aname) {

this.AirlineName = aname;

}

public Date getDate() {

return date;

}

public void setDate(Date date) {

this.date = date;

}

public String getSrc() {

return Source;

}

public void setSrc(String src) {

this.Source = src;

}

public String getDest() {

return Destination;

}

public void setDest(String dest) {

this.Destination = dest;

}

public BigDecimal getPrice() {

return T\_Price;

}

public void setPrice(BigDecimal price) {

this.T\_Price = price;

}

@Override

public String toString() {

return "Product [id=" +fid + ", name=" + AirlineName + ", Date=" + date + ", source=" + Source + ", destination=" + Destination + ", price=" + T\_Price + "]";

}

}

Entity – Customer

package com.org.entity;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name="CustomerDetails")

public class Customer {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name="CustomerID")

private int cid;

private String Username;

private String Password;

private int Age;

private String CityofResidence;

public Customer() {

}

public Customer(int cid, String username, String password, int age, String cityofResidence) {

super();

this.cid = cid;

this.Username = username;

this.Password = password;

this.Age = age;

this.CityofResidence = cityofResidence;

}

public int getCid() {

return cid;

}

public void setCid(int cid) {

this.cid = cid;

}

public String getUsername() {

return Username;

}

public void setUsername(String username) {

this.Username = username;

}

public String getPassword() {

return Password;

}

public void setPassword(String password) {

this.Password = password;

}

public int getAge() {

return Age;

}

public void setAge(int age) {

this.Age = age;

}

public String getCityofResidence() {

return CityofResidence;

}

public void setCityofResidence(String cityofResidence) {

this.CityofResidence = cityofResidence;

}

@Override

public String toString() {

return "Customer [cid=" + cid + ", Username=" + Username + ", Password=" + Password + ", Age=" + Age

+ ", CityofResidence=" + CityofResidence + "]";

}

}

Entity - Order

package com.org.entity;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.JoinColumn;

import javax.persistence.ManyToMany;

import javax.persistence.ManyToOne;

import javax.persistence.OneToOne;

import javax.persistence.Table;

@Entity

@Table(name="OrderDetails")

public class Order {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

@Column(name="OrderID")

private int oid;

@OneToOne

@JoinColumn(name = "FlightID")

private Flight fid;

@ManyToOne

@JoinColumn(name = "CustomerID")

private Customer cid;

public Order() {

}

public Order(int oid, Flight fid, Customer cid) {

super();

this.oid = oid;

this.fid = fid;

this.cid = cid;

}

public int getOid() {

return oid;

}

public void setOid(int oid) {

this.oid = oid;

}

public Flight getFid() {

return fid;

}

public void setFid(Flight fid) {

this.fid = fid;

}

public Customer getCid() {

return cid;

}

public void setCid(Customer cid) {

this.cid = cid;

}

@Override

public String toString() {

return "Order [oid=" + oid + ", fid=" + fid + ", cid=" + cid + "]";

}

}

Admin Controller – AdminList

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Admin;

import com.org.model.HibernateUtil;

@WebServlet("/alist")

public class AdminList extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

List<Admin> list = session.createQuery("from Admin").list();

PrintWriter out = response.getWriter();

out.print("<h1>Admin List</h1><hr>");

out.println("<table>");

out.println("<tr><th>AdminId</th><th>Username</th><th>Password</th><tr>");

for (Admin a : list) {

out.print("<tr>");

out.print("<td>" + a.getAid() + "</td>");

out.print("<td>" + a.getUsername() + "</td>");

out.print("<td>" + a.getPassword() + "</td>");

}

out.print("</table>");

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – AdminLogin

package com.org.admincontroller;

import java.io.IOException;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Admin;

import com.org.model.HibernateUtil;

@WebServlet("/alogin")

public class AdminLogin extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

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

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

int flag = 0;

List<Admin> list = session.createQuery("from Admin").list();

for (Admin a : list) {

if (name.equals(a.getUsername()) && password.equals(a.getPassword())) {

flag = 1;

request.getSession().setAttribute("uname", a.getUsername());

response.sendRedirect("admindashboard.jsp");

return;

}

}

if (flag == 0) {

response.sendRedirect("error.jsp");

return;

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – ChangePassword

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.math.BigDecimal;

import java.sql.Connection;

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;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import org.hibernate.query.Query;

import com.org.model.HibernateUtil;

@WebServlet("/pass")

public class ChangePassword extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

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

String npass = request.getParameter("newpass");

try {

session.beginTransaction();

PreparedStatement stmt = conn.prepareStatement("update AdminDetails set Password=? where Username=?");

stmt.setString(1, npass);

stmt.setString(2, uname);

int x = stmt.executeUpdate();

if (x > 0) {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Data Updated Successfully");

out.print("</font>");

out.print("<br> <a href='adminlogin.jsp'><font color='white'>Click here to login again</font></a><br>");

} else {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Error while deleting a data");

out.print("</font>");

}

session.getTransaction().commit();

session.close();

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – CustomerList

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Customer;

import com.org.model.HibernateUtil;

@WebServlet("/clist")

public class CustomerList extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

List<Customer> list = session.createQuery("from Customer").list();

PrintWriter out = response.getWriter();

out.print("<h1>Customer List</h1><hr>");

out.println("<table>");

out.println("<tr><th>CustomerId</th><th>Username</th><th>Age</th><th>CityofResidence</th><tr>");

for (Customer c : list) {

out.print("<tr>");

out.print("<td>" + c.getCid() + "</td>");

out.print("<td>" + c.getUsername() + "</td>");

out.print("<td>" + c.getAge() + "</td>");

out.print("<td>" + c.getCityofResidence() + "</td>");

}

out.print("</table>");

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – DeleteServlet

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/delete")

public class DeleteServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

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

int fid = Integer.parseInt(id);

try {

session.beginTransaction();

PreparedStatement stmt = conn.prepareStatement("delete from FlightDetails where FlightID=?");

stmt.setInt(1, fid);

int x = stmt.executeUpdate();

if (x > 0) {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Data Deleted Successfully");

out.print("</font>");

out.print(

"<br> <a href='list'><font color='white'>Click here to view updated flight details</font></a><br>");

} else {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Error while deleting a data");

out.print("</font>");

}

session.getTransaction().commit();

session.close();

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – ListServlet

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.text.DateFormat;

import java.text.SimpleDateFormat;

import java.util.Date;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Flight;

import com.org.model.HibernateUtil;

@WebServlet("/list")

public class ListServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

List<Flight> list = session.createQuery("from Flight").list();

PrintWriter out = response.getWriter();

out.print("<br> <a href='admindashboard.jsp'>Click here to go back to Dashboard</a> <br>");

out.print("<h1>Flight List</h1><hr>");

out.println("<table>");

out.println(

"<tr><th>FlightId</th><th>AirlineName</th><th>DateOperating</th><th>Source</th><th>Destination</th><th>TicketPrice</th><th>"

+ " " + "</th><tr>");

for (Flight f : list) {

out.print("<tr>");

out.print("<td>" + f.getFid() + "</td>");

out.print("<td>" + f.getAname() + "</td>");

out.print("<td>" + f.getDate() + "</td>");

out.print("<td>" + f.getSrc() + "</td>");

out.print("<td>" + f.getDest() + "</td>");

out.print("<td>" + f.getPrice() + "</td>");

out.print("<td>" + " <a href='delete?id=" + f.getFid() + "'>Delete</a> | <a href='updatefdetails.jsp?id="

+ f.getFid() + "'>Update</a>" + "</td>");

}

out.print("</table>");

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – LogoutServlet

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

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("/logout")

public class LogoutServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

response.sendRedirect("index.jsp");

return;

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – OrderList

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/olist")

public class OrderList extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

try {

PreparedStatement stmt;

stmt = conn.prepareStatement("select OrderDetails.OrderID,"

+ "CustomerDetails.CustomerID,CustomerDetails.Username,CustomerDetails.Age,"

+ "CustomerDetails.CityofResidence,FlightDetails.FlightID,FlightDetails.AirlineName,"

+ "FlightDetails.DateOpert,FlightDetails.Source,FlightDetails.Destination,"

+ "FlightDetails.T\_Price from ((OrderDetails "

+ "inner join FlightDetails on OrderDetails.FlightID=FlightDetails.FlightID)"

+ "inner join CustomerDetails on OrderDetails.CustomerID=CustomerDetails.CustomerID)");

ResultSet result = stmt.executeQuery();

out.print("<h1>Order Details</h1><hr>");

out.println("<table>");

out.println("<tr><th>OrderId</th><th>CustomerID</th><th>CustomerUsername</th>"

+ "<th>CustomerAge</th><th>CustomerCityofResidence</th><th>FlightID</th>"

+ "<th>AirlineName</th><th>DateOperating</th><th>Source</th>"

+ "<th>Destination</th><th>TicketPrice</th><tr>");

while (result.next()) {

out.print("<tr>");

out.print("<td>" + result.getInt(1) + "</td>");

out.print("<td>" + result.getInt(2) + "</td>");

out.print("<td>" + result.getString(3) + "</td>");

out.print("<td>" + result.getInt(4) + "</td>");

out.print("<td>" + result.getString(5) + "</td>");

out.print("<td>" + result.getInt(6) + "</td>");

out.print("<td>" + result.getString(7) + "</td>");

out.print("<td>" + result.getDate(8) + "</td>");

out.print("<td>" + result.getString(9) + "</td>");

out.print("<td>" + result.getString(10) + "</td>");

out.print("<td>" + result.getInt(11) + "</td>");

}

out.print("</table>");

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – SaveServlet

package com.org.admincontroller;

import java.io.IOException;

import java.math.BigDecimal;

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import java.util.Locale;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Flight;

import com.org.model.HibernateUtil;

@WebServlet("/save")

public class SaveServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

session.beginTransaction();

String airlinename = request.getParameter("aname");

String date1 = request.getParameter("date");

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

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

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

try {

SimpleDateFormat formatter = new SimpleDateFormat("yyyy-MM-dd", Locale.ENGLISH);

Date dateob = formatter.parse(date1);

Flight f = new Flight();

f.setAname(airlinename);

f.setDate(dateob);

f.setSrc(source);

f.setDest(destination);

f.setPrice(new BigDecimal(price));

session.save(f);

session.getTransaction().commit();

session.close();

response.sendRedirect("flightsuccess.jsp");

} catch (Exception e) {

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Admin Controller – UpdateServlet

package com.org.admincontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.math.BigDecimal;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.text.SimpleDateFormat;

import java.util.Date;

import java.util.Locale;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/update")

public class UpdateServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

String id = (String) request.getSession().getAttribute("fid");

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

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

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

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

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

try {

session.beginTransaction();

PreparedStatement stmt = conn.prepareStatement("update FlightDetails set AirlineName=? , "

+ "DateOpert=? , Source=? , Destination=? , T\_Price=? where FlightID=?");

stmt.setString(1, name);

stmt.setString(2, d);

stmt.setString(3, source);

stmt.setString(4, destination);

stmt.setBigDecimal(5, new BigDecimal(price));

stmt.setInt(6, Integer.parseInt(id));

int x = stmt.executeUpdate();

if (x > 0) {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Data Updated Successfully");

out.print("</font>");

out.print(

"<br> <a href='list'><font color='white'>Click here to view updated flight details</font></a><br>");

} else {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Error while updating a data");

out.print("</font>");

}

session.getTransaction().commit();

session.close();

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – BookFlight

package com.org.customercontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/book")

public class BookFlight extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

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

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

String date1 = request.getParameter("date");

try {

PreparedStatement stmt = conn

.prepareStatement("select \* from FlightDetails where Source=? and Destination=? and DateOpert=?");

stmt.setString(1, source);

stmt.setString(2, destination);

stmt.setString(3, date1);

ResultSet result = stmt.executeQuery();

out.print("<h1>Flight Details</h1><hr>");

out.println("<table>");

out.println("<tr><th>FlightID</th><th>AirlineName</th><th>DateOperating</th>"

+ "<th>Source</th><th>Destination</th><th>TicketPrice</th><tr>");

while (result.next()) {

int id = result.getInt(1);

out.print("<tr>");

out.print("<td>" + id + "</td>");

out.print("<td>" + result.getString(2) + "</td>");

out.print("<td>" + result.getDate(3) + "</td>");

out.print("<td>" + result.getString(4) + "</td>");

out.print("<td>" + result.getString(5) + "</td>");

out.print("<td>" + result.getBigDecimal(6) + "</td>");

out.print("<td>" + "<a href='orderd?id=" + id + "'>Book Now</a>");

}

out.print("</table>");

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – BookingDetails

package com.org.customercontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/bdetails")

public class BookingDetails extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

int id = (int) request.getSession().getAttribute("id1");

try {

PreparedStatement stmt;

stmt = conn.prepareStatement("select " + "CustomerDetails.Username,FlightDetails.FlightID,"

+ "FlightDetails.AirlineName,FlightDetails.Source,FlightDetails.Destination,"

+ "FlightDetails.DateOpert,FlightDetails.T\_Price from ((OrderDetails "

+ "inner join FlightDetails on OrderDetails.FlightID=FlightDetails.FlightID)"

+ "inner join CustomerDetails on OrderDetails.CustomerID=CustomerDetails.CustomerID) "

+ "where OrderDetails.CustomerID=?");

stmt.setInt(1, id);

ResultSet result = stmt.executeQuery();

out.print("<br> <a href='customerdashboard.jsp'>Click here to go back to Dashboard</a> <br>");

out.print("<h1>Booking Details</h1><hr>");

out.println("<table>");

out.println("<tr><th>Username</th><th>FlightID</th><th>AirlineName</th>"

+ "<th>Source</th><th>Destination</th><th>DateOperating</th><th>TicketPrice</th><tr>");

while (result.next()) {

out.print("<tr>");

out.print("<td>" + result.getString(1) + "</td>");

out.print("<td>" + result.getInt(2) + "</td>");

out.print("<td>" + result.getString(3) + "</td>");

out.print("<td>" + result.getString(4) + "</td>");

out.print("<td>" + result.getString(5) + "</td>");

out.print("<td>" + result.getDate(6) + "</td>");

out.print("<td>" + result.getInt(7) + "</td>");

}

out.print("</table>");

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – ChangePasswordCust

package com.org.customercontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

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;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/cpass")

public class ChangePasswordCust extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

int id = (int) request.getSession().getAttribute("id1");

String npass = request.getParameter("newpass");

try {

session.beginTransaction();

PreparedStatement stmt = conn.prepareStatement("update CustomerDetails set Password=? where CustomerID=?");

stmt.setString(1, npass);

stmt.setInt(2, id);

int x = stmt.executeUpdate();

if (x > 0) {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Password Updated Successfully");

out.print("</font>");

out.print(

"<br> <a href='customerlogin.jsp'><font color='white'>Click here to login again</font></a><br>");

} else {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Error while updating a data");

out.print("</font>");

}

session.getTransaction().commit();

session.close();

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – CLogout

package com.org.customercontroller;

import java.io.IOException;

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("/lout")

public class CLogout extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

response.sendRedirect("index.jsp");

return;

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – CustomerLogin

package com.org.customercontroller;

import java.io.IOException;

import java.io.PrintWriter;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Customer;

import com.org.model.HibernateUtil;

@WebServlet("/clogin")

public class CustomerLogin extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

PrintWriter out = response.getWriter();

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

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

int flag = 0;

List<Customer> list = session.createQuery("from Customer").list();

for (Customer c : list) {

if (name.equals(c.getUsername()) && password.equals(c.getPassword())) {

flag = 1;

request.getSession().setAttribute("id", c.getCid());

request.getSession().setAttribute("uname", c.getUsername());

response.sendRedirect("customerdashboard.jsp");

return;

}

}

if (flag == 0) {

response.sendRedirect("err.jsp");

return;

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – CustomerProfile

package com.org.customercontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

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;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/profile")

public class CustomerProfile extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

int id = (int) request.getSession().getAttribute("id");

try {

PreparedStatement stmt = conn.prepareStatement("select \* from CustomerDetails where CustomerID=?");

stmt.setInt(1, id);

ResultSet result = stmt.executeQuery();

out.print("<br> <a href='customerdashboard.jsp'>Click here to go back to Dashboard</a> <br>");

out.print("<h1>Customer Details</h1><hr>");

out.println("<table>");

out.println("<tr><th>Username</th><th>Password</th><th>Age</th><th>CityofResidence</th><tr>");

while (result.next()) {

out.print("<tr>");

out.print("<td>" + result.getString(2) + "</td>");

out.print("<td>" + result.getString(3) + "</td>");

out.print("<td>" + result.getInt(4) + "</td>");

out.print("<td>" + result.getString(5) + "</td>");

out.print("<td>" + "<a href='cupdatedetails.jsp?id=" + result.getInt(1) + "'>Update</a>");

request.getSession().setAttribute("id1", result.getInt(1));

}

out.print("</table>");

out.print("<br><br> <a href='bdetails'>Click here to view all Booking Details</a>");

out.print("<br><br> <a href='changepasswordcust.jsp'>Click here to change password</a>");

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – CustomerProfileUpdate

package com.org.customercontroller;

import java.io.IOException;

import java.io.PrintWriter;

import java.math.BigDecimal;

import java.sql.Connection;

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;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/cupdate")

public class CustomerProfileUpdate extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

int id = (int) request.getSession().getAttribute("cid");

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

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

String city = request.getParameter("cof");

try {

session.beginTransaction();

PreparedStatement stmt = conn.prepareStatement(

"update CustomerDetails set Username=? , " + "Age=? , CityofResidence=? where CustomerID=?");

stmt.setString(1, name);

stmt.setInt(2, Integer.parseInt(age));

stmt.setString(3, city);

stmt.setInt(4, id);

int x = stmt.executeUpdate();

if (x > 0) {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Data Updated Successfully");

out.print("</font>");

out.print(

"<br> <a href='profile'><font color='white'>Click here to view updated profile</font></a><br>");

} else {

out.print("<body background='https://www.india.com/wp-content/uploads/2020/09/Domestic-Flights.jpg'>");

out.print("<font color='white'>");

out.print("Error while updating a data");

out.print("</font>");

}

session.getTransaction().commit();

session.close();

} catch (Exception e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – CustomerRegister

package com.org.customercontroller;

import java.io.IOException;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Customer;

import com.org.model.HibernateUtil;

@WebServlet("/cregister")

public class CustomerRegister extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

try {

session.beginTransaction();

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

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

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

String city = request.getParameter("cr");

Customer c = new Customer();

c.setUsername(name);

c.setPassword(password);

c.setAge(age);

c.setCityofResidence(city);

session.save(c);

session.getTransaction().commit();

session.close();

response.sendRedirect("registersuccess.jsp");

} catch (Exception e) {

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – OrderDetails

package com.org.customercontroller;

import java.io.IOException;

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 org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.org.entity.Customer;

import com.org.model.HibernateUtil;

@WebServlet("/cregister")

public class CustomerRegister extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

try {

session.beginTransaction();

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

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

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

String city = request.getParameter("cr");

Customer c = new Customer();

c.setUsername(name);

c.setPassword(password);

c.setAge(age);

c.setCityofResidence(city);

session.save(c);

session.getTransaction().commit();

session.close();

response.sendRedirect("registersuccess.jsp");

} catch (Exception e) {

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – PurchaseCalc

package com.org.customercontroller;

import java.io.IOException;

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 javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/purcalc")

public class PurchaseCalc extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

String passengers = request.getParameter("calc");

int id2 = (int) request.getSession().getAttribute("id");

int t = (int) request.getSession().getAttribute("price");

int p = Integer.parseInt(passengers);

int f = t \* p;

try {

PreparedStatement stmt;

stmt = conn.prepareStatement("select " + "CustomerDetails.Username,FlightDetails.FlightID,"

+ "FlightDetails.AirlineName,FlightDetails.DateOpert,FlightDetails.Source,"

+ "FlightDetails.Destination from ((OrderDetails "

+ "inner join FlightDetails on OrderDetails.FlightID=FlightDetails.FlightID)"

+ "inner join CustomerDetails on OrderDetails.CustomerID=CustomerDetails.CustomerID) "

+ "where OrderDetails.CustomerID=?");

stmt.setInt(1, id2);

ResultSet result = stmt.executeQuery();

while (result.next()) {

out.print("<h1>Booking Details</h1><br>");

out.print("Username: " + result.getString(1)+"<br>");

out.print("FlightID: " + result.getInt(2)+"<br>");

out.print("Airline Name: " + result.getString(3)+"<br>");

out.print("Date: " + result.getDate(4)+"<br>");

out.print("Source: " + result.getString(5)+"<br>");

out.print("Destination: " + result.getString(6)+"<br>");

out.print("Total fare: "+f);

out.print("<br> <a href='customerdashboard.jsp'>Click here to go back to Dashboard</a> <br>");

request.getSession().setAttribute("id2", result);

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}

Customer Controller – ViewOrderDetails

package com.org.customercontroller;

import java.io.IOException;

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 javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.internal.SessionImpl;

import com.org.model.HibernateUtil;

@WebServlet("/purcalc")

public class PurchaseCalc extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

SessionImpl sessionImpl = (SessionImpl) session;

Connection conn = sessionImpl.connection();

PrintWriter out = response.getWriter();

String passengers = request.getParameter("calc");

int id2 = (int) request.getSession().getAttribute("id");

int t = (int) request.getSession().getAttribute("price");

int p = Integer.parseInt(passengers);

int f = t \* p;

try {

PreparedStatement stmt;

stmt = conn.prepareStatement("select " + "CustomerDetails.Username,FlightDetails.FlightID,"

+ "FlightDetails.AirlineName,FlightDetails.DateOpert,FlightDetails.Source,"

+ "FlightDetails.Destination from ((OrderDetails "

+ "inner join FlightDetails on OrderDetails.FlightID=FlightDetails.FlightID)"

+ "inner join CustomerDetails on OrderDetails.CustomerID=CustomerDetails.CustomerID) "

+ "where OrderDetails.CustomerID=?");

stmt.setInt(1, id2);

ResultSet result = stmt.executeQuery();

while (result.next()) {

out.print("<h1>Booking Details</h1><br>");

out.print("Username: " + result.getString(1)+"<br>");

out.print("FlightID: " + result.getInt(2)+"<br>");

out.print("Airline Name: " + result.getString(3)+"<br>");

out.print("Date: " + result.getDate(4)+"<br>");

out.print("Source: " + result.getString(5)+"<br>");

out.print("Destination: " + result.getString(6)+"<br>");

out.print("Total fare: "+f);

out.print("<br> <a href='customerdashboard.jsp'>Click here to go back to Dashboard</a> <br>");

request.getSession().setAttribute("id2", result);

}

} catch (SQLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

doGet(request, response);

}

}