```java
package com.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 org.simplilearn.workshop.util.StringUtil;


public class Dao {
  public Connection con=null;
  public Statement st=null;

  public Dao() throws ClassNotFoundException, SQLException{
     Class.forName("com.mysql.cj.jdbc.Driver");

con=DriverManager.getConnection("jdbc:mysql://localhost:3306/flyaway","root","u
sha");
     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');";
  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;
}
}
```

```
package com.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.database.Dao;



@WebServlet("/AdminLogin")
public class AdminLogin 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 {
        Dao dao=new Dao();

        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();
```

```
    }

  }

}
```

```
package com.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.database.Dao;

@WebServlet("/FlightList")
public class FlightList 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 {
       Dao dao = new Dao();
       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");
  }
}
```

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import java.io.IOException;
import java.sql.SQLException;

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.database.Dao;
@WebServlet("/ForgotPassword")
public class ForgotPassword 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 {
        Dao dao=new Dao();
        HttpSession session=request.getSession();
        if(dao.changeAdminPassword(email,password)) {
           session.setAttribute("message", "Password Changed Successfully");
        }
        else {
           session.setAttribute("message", "Invalid Details");
        }
     } catch (ClassNotFoundException | SQLException e) {
        // TODO Auto-generated catch block
        e.printStackTrace();
     }
     response.sendRedirect("AdminPage.jsp");

  }

}
```

```java
package com.servlets;

import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import java.io.IOException;
import java.sql.SQLException;
```

```java
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.database.Dao;


@WebServlet("/InsertFlight")
public class InsertFlight 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 {
       Dao dao=new Dao();
       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");

  }
```

```
}
```

```
package com.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");
  }

}
```

```
package com.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.database.Dao;
@WebServlet("/UserLogin")
public class UserLogin 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 {
       Dao dao=new Dao();
       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();
    }

}
}
```

```
package com.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.database.Dao;

@WebServlet("/UserRegistration")
public class UserRegistration 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 {
       Dao dao=new Dao();
       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");
  }

}
```

```
package org.simplilearn.workshop.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(" ");
        else
           encodedTag.append(c);
     }
     return encodedTag.toString();
  }
}
```