**PHASE2-FINALPROJECT SORCE CODE**

**Class.java**

**package** com.simplilearn.models;

**public** **class** Class {

**private** **int** id;

**private** **int** section;

**private** String teacher;

**private** String subject;

**private** String time;

**public** Class(**int** id, **int** section, String teacher, String subject, String time) {

**super**();

**this**.id = id;

**this**.section = section;

**this**.teacher = teacher;

**this**.subject = subject;

**this**.time = time;

}

**public** **int** getId() {

**return** id;

}

**public** **void** setId(**int** id) {

**this**.id = id;

}

**public** **int** getSection() {

**return** section;

}

**public** **void** setSection(**int** section) {

**this**.section = section;

}

**public** String getTeacher() {

**return** teacher;

}

**public** **void** setTeacher(String teacher) {

**this**.teacher = teacher;

}

**public** String getSubject() {

**return** subject;

}

**public** **void** setSubject(String subject) {

**this**.subject = subject;

}

**public** String getTime() {

**return** time;

}

**public** **void** setTime(String time) {

**this**.time = time;

}

}

**Subject.java**

**package** com.simplilearn.models;

**public** **class** Subject {

**private** **int** id;

**private** String name;

**private** String shortcut;

**public** Subject(**int** id, String name, String shortcut ) {

**super**();

**this**.id = id;

**this**.name = name;

**this**.shortcut = shortcut;

}

**public** **int** getId() {

**return** id;

}

**public** **void** setId(**int** id) {

**this**.id = id;

}

**public** String getShortcut() {

**return** shortcut;

}

**public** **void** setShortcut(String shortcut) {

**this**.shortcut = shortcut;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

}

**Teacher.java**

**public** **class** Teacher {

**private** **int** id;

**private** String fname;

**private** String lname;

**private** **int** age;

**public** Teacher(**int** id, String fname, String lname, **int** age) {

**super**();

**this**.id = id;

**this**.fname = fname;

**this**.lname = lname;

**this**.age = age;

}

**public** **int** getId() {

**return** id;

}

**public** **void** setId(**int** id) {

**this**.id = id;

}

**public** String getFname() {

**return** fname;

}

**public** **void** setFname(String fname) {

**this**.fname = fname;

}

**public** String getLname() {

**return** lname;

}

**public** **void** setLname(String lname) {

**this**.lname = lname;

}

**public** **int** getAge() {

**return** age;

}

**public** **void** setAge(**int** age) {

**this**.age = age;

}

}

**AdminControllerServlet:**

**package** com.simplilearn.admin;

**import** java.io.IOException;

**import** java.util.List;

**import** javax.annotation.Resource;

**import** javax.servlet.RequestDispatcher;

**import** javax.servlet.ServletException;

**import** javax.servlet.annotation.WebServlet;

**import** javax.servlet.http.Cookie;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**import** javax.sql.DataSource;

**import** com.simplilearn.models.Student;

**import** com.simplilearn.models.Subject;

**import** com.simplilearn.models.Teacher;

**import** com.simplilearn.models.Class;

/\*\*

\* Servlet implementation class AdminControllerServlet

\*/

@WebServlet("/AdminControllerServlet")

**public** **class** AdminControllerServlet **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

**private** DbRetrieve dbRetrieve;

@Resource(name = "jdbc\_database")

**private** DataSource datasource;

@Override

**public** **void** init() **throws** ServletException {

**super**.init();

// create instance of db util, to pass in conn pool object

**try** {

dbRetrieve = **new** DbRetrieve(datasource);

} **catch** (Exception e) {

**throw** **new** ServletException(e);

}

}

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** AdminControllerServlet() {

**super**();

// **TODO** Auto-generated constructor stub

}

@Override

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

doGet(req, resp);

}

/\*\*

\* **@see** HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

**protected** **void** doGet(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

// **TODO** Auto-generated method stub

**try** {

// read the "command" parameter

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

**if** (command == **null**) {

command = "CLASSES";

}

// if no cookeies

**if** (!getCookies(request, response) && (!command.equals("LOGIN"))) {

response.sendRedirect("/PHASE2-FINAL-PROJECT/login.jsp");

}

**else** {

// if there is no command, how to handle

// route the data to the appropriate method

**switch** (command) {

**case** "STUDENTS":

studentsList(request, response);

**break**;

**case** "TEACHERS":

teachersList(request, response);

**break**;

**case** "SUBJECTS":

subjectList(request, response);

**break**;

**case** "CLASSES":

classestList(request, response);

**break**;

**case** "ST\_LIST":

classStudentsList(request, response);

**break**;

**case** "LOGIN":

login(request, response);

**break**;

**default**:

classestList(request, response);

}

}

} **catch** (Exception e) {

**throw** **new** ServletException(e);

}

// response.getWriter().append("Served at: ").append(request.getContextPath());

}

**private** **void** studentsList(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

// get students from db util

List<Student> students = dbRetrieve.getStudents();

// add students to the request

request.setAttribute("STUDENT\_LIST", students);

// send it to the jsp view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/list-students.jsp");

dispatcher.forward(request, response);

}

**private** **void** teachersList(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

// get students from db util

List<Teacher> teachers = dbRetrieve.getTeachers();

// add students to the request

request.setAttribute("TEACHERS\_LIST", teachers);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/teachers-list.jsp");

dispatcher.forward(request, response);

}

**private** **void** subjectList(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

// get subjects from db util

List<Subject> subjects = dbRetrieve.getSubjects();

// add subjects to the request

request.setAttribute("SUBJECTS\_LIST", subjects);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/subjects-list.jsp");

dispatcher.forward(request, response);

}

**private** **void** classestList(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

// get subjects from db util

List<Class> classes = dbRetrieve.getClasses();

// add subjects to the request

request.setAttribute("CLASSES\_LIST", classes);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/classes-list.jsp");

dispatcher.forward(request, response);

}

**private** **void** login(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

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

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

**if** (username.toLowerCase().equals("admin") && password.toLowerCase().equals("admin")) {

Cookie cookie = **new** Cookie(username, password);

// Setting the maximum age to 1 day

cookie.setMaxAge(86400); // 86400 seconds in a day

// Send the cookie to the client

response.addCookie(cookie);

classestList(request, response);

} **else** {

RequestDispatcher dispatcher = request.getRequestDispatcher("/login.jsp");

dispatcher.forward(request, response);

}

}

**private** **void** classStudentsList(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

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

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

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

// get subjects from db util

List<Student> students = dbRetrieve.loadClassStudents(classId);

// add subjects to the request

request.setAttribute("STUDENTS\_LIST", students);

request.setAttribute("SECTION", section);

request.setAttribute("SUBJECT", subject);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/class-students.jsp");

dispatcher.forward(request, response);

}

**private** **boolean** getCookies(HttpServletRequest request, HttpServletResponse response) **throws** Exception {

**boolean** check = **false**;

Cookie[] cookies = request.getCookies();

// Find the cookie of interest in arrays of cookies

**for** (Cookie cookie : cookies) {

**if** (cookie.getName().equals("admin") && cookie.getValue().equals("admin")) {

check = **true**;

**break**;

}

}

**return** check;

}

}

**TestServlet:**

**package** com.simplilearn.admin;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** java.sql.Connection;

**import** java.sql.ResultSet;

**import** java.sql.Statement;

**import** javax.annotation.Resource;

**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.sql.DataSource;

/\*\*

\* Servlet implementation class TestServlet

\*/

@WebServlet("/TestServlet")

**public** **class** TestServlet **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

//Define datasource/connection pool for reference

@Resource(name="jdbc\_database")

**private** DataSource dataSource;

/\*\*

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

\*/

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

// Set the printwriter

PrintWriter out = response.getWriter();

response.setContentType("text/plain");

// establish connection to the DB

Connection myConn = **null**;

Statement myStmt = **null**;

ResultSet myRs = **null**;

**try** {

myConn = dataSource.getConnection();

//create a sql statement

String sql = "select \* from students";

myStmt = myConn.createStatement();

//execute the sql statement

myRs = myStmt.executeQuery(sql);

//process the resultset

**while**(myRs.next()) {

String fname = myRs.getString("fname");

out.println(fname);

}

}

**catch**(Exception e) {

e.printStackTrace();

}

}

}

**login.jsp**

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

pageEncoding=*"UTF-8"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>Login</title>

</head>

<body>

<div>

<h3>Developer Name: Posi Papa Rohini Eli</h3>

<h3>Developer Email: mailtorohini@gmail.com</h3>

<h3>SimpliLearn Full Stack Development Course Phase 2</h3>

</div>

<form action=*"AdminControllerServlet"* method=*"POST"*>

<div class=*"container"*>

<input type=*"hidden"* name=*"command"* value=*"LOGIN"* />

<label>Username : </label>

<br/>

<input type=*"text"* placeholder=*"Enter Username"* name=*"username"* required>

<br/>

<label>Password : </label>

<br/>

<input type=*"password"* placeholder=*"Enter Password"* name=*"password"* required>

<br/>

<button type=*"submit"*>Login</button>

<br/>

<input type=*"checkbox"* checked=*"checked"*> Remember me

</div>

</form>

</body>

</html>

**web.xml**

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

<web-app xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xmlns=*"http://java.sun.com/xml/ns/javaee"* xsi:schemaLocation=*"http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd"* id=*"WebApp\_ID"* version=*"2.5"*>

<display-name>PHASE2-FINAL-PROJECT1</display-name>

<welcome-file-list>

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

<description></description>

<display-name>AdminControllerServlet</display-name>

<servlet-name>AdminControllerServlet</servlet-name>

<servlet-class>com.simplilearn.admin.AdminControllerServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>AdminControllerServlet</servlet-name>

<url-pattern>/AdminControllerServlet</url-pattern>

</servlet-mapping>

<servlet>

<description></description>

<display-name>TestServlet</display-name>

<servlet-name>TestServlet</servlet-name>

<servlet-class>com.simplilearn.admin.TestServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>TestServlet</servlet-name>

<url-pattern>/TestServlet</url-pattern>

</servlet-mapping>

</web-app>