**Simplilearn-\_Phase\_-2\_-project-\_FSJD-\_ Learner’s Academy**

**Source code**

Project Name: Learner’s Academy

Note -For proper source code kindly refer gitlink

**Project Version: 1.0**

**GitHub repository link:**

[**https://github.com/ankitsinghpawar2022/Simplilearn-\_Phase\_-2\_-project-\_FSJD-\_-Learner-s-Academy**](https://github.com/ankitsinghpawar2022/Simplilearn-_Phase_-2_-project-_FSJD-_-Learner-s-Academy)

**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("/Administrative-Portal/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;**

**}**

**}**

**package com.simplilearn.admin;**

**import java.sql.Connection;**

**import java.sql.ResultSet;**

**import java.sql.Statement;**

**import java.util.ArrayList;**

**import java.util.List;**

**import javax.sql.DataSource;**

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

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

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

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

**public class DbRetrieve {**

**private DataSource dataSource;**

**public DbRetrieve(DataSource dataSource) {**

**this.dataSource = dataSource;**

**}**

**public List<Student> getStudents() {**

**List<Student> students = new ArrayList<>();**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM students";**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

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

**String lastName = myRs.getString("lname");**

**int age = myRs.getInt("age");**

**int aclass = myRs.getInt("class");**

**// create new student object**

**Student tempStudent = new Student(id, firstName, lastName, age, aclass);**

**// add it to the list of students**

**students.add(tempStudent);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return students;**

**}**

**public List<Teacher> getTeachers() {**

**List<Teacher> teachers = new ArrayList<>();**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM teachers";**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

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

**String lastName = myRs.getString("lname");**

**int age = myRs.getInt("age");**

**// create new student object**

**Teacher temp = new Teacher(id, firstName, lastName, age);**

**// add it to the list of students**

**teachers.add(temp);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return teachers;**

**}**

**public List<Subject> getSubjects() {**

**List<Subject> subjects = new ArrayList<>();**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM subjects";**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

**String name = myRs.getString("name");**

**String shortcut = myRs.getString("shortcut");**

**// create new student object**

**Subject temp = new Subject(id, name,shortcut);**

**// add it to the list of students**

**subjects.add(temp);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return subjects;**

**}**

**public List<Class> getClasses() {**

**List<Class> classes = new ArrayList<>();**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM classes";**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

**int section = myRs.getInt("section");**

**int subject = myRs.getInt("subject");**

**int teacher = myRs.getInt("teacher");**

**String time = myRs.getString("time");**

**Teacher tempTeacher = loadTeacher(teacher);**

**Subject tempSubject = loadSubject(subject);**

**String teacher\_name = tempTeacher.getFname() + " " + tempTeacher.getLname();**

**// create new student object**

**Class temp = new Class(id, section, teacher\_name, tempSubject.getName(), time);**

**// add it to the list of students**

**classes.add(temp);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return classes;**

**}**

**public Teacher loadTeacher(int teacherId) {**

**Teacher theTeacher = null;**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM teachers WHERE id = " + teacherId;**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

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

**String lname = myRs.getString("lname");**

**int age = myRs.getInt("age");**

**theTeacher = new Teacher(id, fname, lname, age);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return theTeacher;**

**}**

**public Subject loadSubject(int subjectId) {**

**Subject theSubject = null;**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM subjects WHERE id = " + subjectId;**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

**String name = myRs.getString("name");**

**String shortcut = myRs.getString("shortcut");**

**theSubject = new Subject(id, name,shortcut);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return theSubject;**

**}**

**public Class loadClass(int classId) {**

**Class theClass = null;**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM clasess WHERE id = " + classId;**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

**int section = myRs.getInt("section");**

**int subject = myRs.getInt("subject");**

**int teacher = myRs.getInt("teacher");**

**String time = myRs.getString("time");**

**Teacher tempTeacher = loadTeacher(teacher);**

**Subject tempSubject = loadSubject(subject);**

**String teacher\_name = tempTeacher.getFname() + " " + tempTeacher.getLname();**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return theClass;**

**}**

**public List<Student> loadClassStudents(int classId) {**

**List<Student> students = new ArrayList<>();**

**Connection myConn = null;**

**Statement myStmt = null;**

**ResultSet myRs = null;**

**try {**

**// get a connection**

**myConn = dataSource.getConnection();**

**// create sql stmt**

**String sql = "SELECT \* FROM students WHERE class = " + classId;**

**myStmt = myConn.createStatement();**

**// execute query**

**myRs = myStmt.executeQuery(sql);**

**// process result**

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

**// retrieve data from result set row**

**int id = myRs.getInt("id");**

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

**String lastName = myRs.getString("lname");**

**int age = myRs.getInt("age");**

**int aclass = myRs.getInt("class");**

**// create new student object**

**Student tempStudent = new Student(id, firstName, lastName, age, aclass);**

**students.add(tempStudent);**

**}**

**} catch (Exception e) {**

**// TODO: handle exception**

**} finally {**

**// close JDBC objects**

**close(myConn, myStmt, myRs);**

**}**

**return students;**

**}**

**private void close(Connection myConn, Statement myStmt, ResultSet myRs) {**

**try {**

**if (myRs != null) {**

**myRs.close();**

**}**

**if (myStmt != null) {**

**myStmt.close();**

**}**

**if (myConn != null) {**

**myConn.close();**

**}**

**} catch (Exception e) {**

**e.printStackTrace();**

**}**

**}**

**}**

**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();**

**}**

**}**

**}**

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

<!DOCTYPE html>

<html>

<head>

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

<title>Login</title>

 <link type="text/css" rel="stylesheet" href="css/login.css">

</head>

<body style="background-image: url('css/background.jpg');">

  <center> <h1> Admin Login </h1> </center>

    <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>

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

<!DOCTYPE html>

<html>

<head>

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

<title>List of Students</title>

<link type="text/css" rel="stylesheet" href="css/style.css">

</head>

<body style="background-image: url('css/background.jpg');">

<div id="page" >

    <jsp:include page="left-list.jsp" />

        <div id="wrapper">

            <div id="header">

                <h3>Students</h3>

            </div>

        </div>

        <div id="container">

            <div id="content">

                <table>

                    <tr>

                        <th>First Name</th>

                        <th>Last Name</th>

                        <th>age</th>

                    </tr>

                    <c:forEach var="tempStudent" items="${STUDENT\_LIST }">

                        <tr>

                            <td>${tempStudent.fname}</td>

                            <td>${tempStudent.lname}</td>

                            <td>${tempStudent.age}</td>

                        </tr>

                    </c:forEach>

                </table>

            </div>

        </div>

    </div>

</body>

</html>