**Admin for Learner’s Academy**

**SourceCode**

**Java:**

**AdminControllerServlet.java**

**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.equals("Admin") && password.equals("123")) {**

**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;**

**}**

**}**

**DbRetrieve.java**

**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();**

**}**

**}**

**}**

**TestServlet.java**

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();

}

}

}

**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;

}

}

**Student.java**

**package** com.simplilearn.models;

**public** **class** Student {

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

**private** String fname;

**private** String lname;

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

**private** **int** aclass;

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

**super**();

**this**.id = id;

**this**.fname = fname;

**this**.lname = lname;

**this**.age = age;

**this**.aclass = aclass;

}

**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;

}

**public** **int** getAclass() {

**return** aclass;

}

**public** **void** setAclass(**int** aclass) {

**this**.aclass = aclass;

}

@Override

**public** String toString() {

**return** "Student [id=" + id + ", fname=" + fname + ", lname=" + lname + ", age=" + age + ", aclass=" + aclass

+ "]";

}

}

**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**

**package** com.simplilearn.models;

**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;

}

}

**WEB**

**Login.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>Login</title>

</head>

<body >

<h1> ADMIN LOGIN</h1>

<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>

**Classes-list.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>List of Classes</title>

</head>

<body>

<div id=*"page"*>

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

<div id=*"wrapper"*>

<div id=*"header"*>

<h3>Classes</h3>

</div>

</div>

<div id=*"container"*>

<div id=*"content"*>

<table border=*'1'*>

<tr>

<th>Section</th>

<th>Subject</th>

<th>Teacher</th>

<th>Time</th>

<th>List of Students</th>

</tr>

<c:forEach var=*"tempClass"* items=*"*${CLASSES\_LIST }*"*>

<tr>

<c:url var=*"tempLink"* value=*"AdminControllerServlet"*>

<c:param name=*"command"* value=*"ST\_LIST"* />

<c:param name=*"classId"* value=*"*${tempClass.id }*"* />

<c:param name=*"section"* value=*"*${tempClass.section }*"* />

<c:param name=*"subject"* value=*"*${tempClass.subject }*"* />

</c:url>

<td>${tempClass.section}</td>

<td>${tempClass.subject}</td>

<td>${tempClass.teacher}</td>

<td>${tempClass.time}</td>

<td><a href=*"*${tempLink }*"*>List</a></td>

</tr>

</c:forEach>

</table>

</div>

</div>

</div>

</body>

</html>

**class-students.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>Students of a Class</title>

</head>

<body>

<div id=*"page"* >

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

<div id=*"wrapper"*>

<div id=*"header"*>

<h3>Students of ${SUBJECT} class section ${SECTION} </h3>

</div>

</div>

<div id=*"container"*>

<div id=*"content"*>

<table border=*'1'*>

<tr>

<th>First Name</th>

<th>Last Name</th>

<th>age</th>

</tr>

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

<tr>

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

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

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

</tr>

</c:forEach>

</table>

</div>

</div>

</div>

</body>

</html>

**Left-list.jsp**

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

<h3>

ADMINISTRATIVE ACADEMY PORTAL

</h3>

<c:url var=*"classesLink"* value=*"AdminControllerServlet"*>

<c:param name=*"command"* value=*"CLASSES"* />

</c:url>

<c:url var=*"subjectsLink"* value=*"AdminControllerServlet"*>

<c:param name=*"command"* value=*"SUBJECTS"* />

</c:url>

<c:url var=*"teachersLink"* value=*"AdminControllerServlet"*>

<c:param name=*"command"* value=*"TEACHERS"* />

</c:url>

<c:url var=*"studentsLink"* value=*"AdminControllerServlet"*>

<c:param name=*"command"* value=*"STUDENTS"* />

</c:url>

<a class=*"bar-item"* href=*"*${classesLink}*"*>Classes</a>

<a class=*"bar-item"* href=*"*${subjectsLink}*"*>Subjects</a>

<a class=*"bar-item"* href=*"*${teachersLink}*"*>Teachers</a>

<a class=*"bar-item"* href=*"*${studentsLink}*"*>Students</a>

<a class=*"bar-item"* href=*"login.jsp"*>Log out</a>

**list-students.jsp**

<%@ 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>

</head>

<body>

<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 border=*'1'*>

<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>

**subjects-list.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>List of Teachers</title>

</head>

<body>

<div id=*"page"*>

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

<div id=*"wrapper"*>

<div id=*"header"*>

<h3>Subjects</h3>

</div>

</div>

<div id=*"container"*>

<div id=*"content"*>

<table border=*'1'*>

<tr>

<th>Name</th>

<th>Shortcut</th>

</tr>

<c:forEach var=*"tempSubject"* items=*"*${SUBJECTS\_LIST }*"*>

<tr>

<td>${tempSubject.name}</td>

<td>${tempSubject.shortcut}</td>

</tr>

</c:forEach>

</table>

</div>

</div>

</div>

</body>

</html>

**Teachers-list.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>List of Teachers</title>

</head>

<body>

<div id=*"page"*>

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

<div id=*"wrapper"*>

<div id=*"header"*>

<h3>Teachers</h3>

</div>

</div>

<div id=*"container"*>

<div id=*"content"*>

<table border=*'1'*>

<tr>

<th>First Name</th>

<th>Last Name</th>

<th>age</th>

</tr>

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

<tr>

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

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

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

</tr>

</c:forEach>

</table>

</div>

</div>

</div>

</body>

</html>