Learner's Academy. Source Code

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 = "administretive_portal")
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;
}
}
DBReterive.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("Iname");
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("Iname");
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 the Teacher = 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 Iname = myRs.getString("Iname");
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 the Teacher;
}
public Subject loadSubject(int subjectId) {
Subject the Subject = 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 the Subject;
}
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("Iname");
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();
}
}
}
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 Iname;
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 Iname;
```

```
}
public void setLname(String Iname) {
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 + ", Iname=" + Iname + ", 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;
}
}
Teachers.java
package com.simplilearn.models;
public class Teacher {
private int id;
private String fname;
private String Iname;
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 Iname;
}
public void setLname(String Iname) {
this.lname = lname;
}
public int getAge() {
return age;
}
```

```
public void setAge(int age) {
this.age = age;
}
Login.css
Body {
font-family: Calibri, Helvetica, sans-serif;
 background-color: pink;
}
button {
justify-content: center;
    background-color: rgb(128, 128, 255);
    width: 100%;
    color: white;
    padding: 15px;
    margin: 10px 0px;
    border: none;
    cursor: pointer;
    }
form {
    border: 1.4px solid black;
width: 45%;
margin: 0 auto;
  }
input[type=text], input[type=password] {
```

```
justify-content: center;
    width: 100%;
    margin: 8px 0;
    padding: 12px 20px;
    display: inline-block;
    border: 2px solid rgb(0, 255, 0);
    box-sizing: border-box;
  }
button:hover {
    opacity: 0.7;
  }
.container {
 justify-content: center;
    padding: 15px;
    background-color: #FFF8DC;
  }
}
Style.css
html, body{
padding:0px;
font-family: Verdana, Arial, Helvetica, sans-serif;
margin-left: 103px; /* Same as the width of the sidenav */
}
```

```
table {
border-collapse:collapse;
border:1px solid gray;
font-family: Tahoma, Verdana, Segoe, sans-serif;
width:72%;
}
th {
border-bottom:1px solid gray;
background:none repeat scroll 0 0 rgb(128, 128, 128);
padding:10px;
color: #FFFFFF;
}
tr {
border-top:1px solid gray;
text-align:center;
}
tr:nth-child(even) {background: #FFFFFF}
tr:nth-child(odd) {background: #BBBBBB}
#wrapper {width: 100%; text-align: center; }
#header {width: 72%; background: rgb(128, 128, 128); margin-top: 0px; padding:5px 0px
15px 0px;}
#header h3 {width: 100%; margin:auto; color: #FFFFFF;}
#container {width: 100%; margin:auto}
#container h3 {color: #000;}
#container #content {margin-top: 20px;}
```

```
.add-student-button {
border: 1px solid #666;
border-radius: 5px;
padding: 4px;
font-size: 12px;
font-weight: bold;
width: 120px;
padding: 5px 10px;
margin-bottom: 15px;
background: #ccccc;
}
.sidenav {
 height: 100%;
 width: 200px;
 border-color: #FFFFF;
 position: fixed;
 z-index: 1;
 top: 0;
 left: 0;
 background-color: #000080;
 overflow-x: hidden;
 padding-top: 20px;
}
```

```
.sidenav a {
 padding: 6px 6px 6px 32px;
 text-decoration: none;
 font-size: 25px;
 color: white;
 display: block;
}
.sidenav a:hover {
 color: blue;
}
@media screen and (max-height: 450px) {
 .sidenav {padding-top: 15px;}
.sidenav a {font-size: 18px;}
}
#page{
 height: 100%;
}
#logo{
font-family: 'Trebuchet MS', sans-serif;
text-align: center;
color: white;
```

```
}
.bar-item{
border-color: #FFFFF;
border-width: 3px;
border-bottom: .5px solid rgba(255, 255, 255, 0.247);
}
Classeclist.jsp
html, body{
padding:0px;
font-family: Verdana, Arial, Helvetica, sans-serif;
margin-left: 103px; /* Same as the width of the sidenav */
}
table {
border-collapse:collapse;
border:1px solid gray;
font-family: Tahoma, Verdana, Segoe, sans-serif;
width:72%;
}
th {
border-bottom:1px solid gray;
```

```
background:none repeat scroll 0 0 rgb(128, 128, 128);
padding:10px;
color: #FFFFFF;
}
tr {
border-top:1px solid gray;
text-align:center;
}
tr:nth-child(even) {background: #FFFFFF}
tr:nth-child(odd) {background: #BBBBBB}
#wrapper {width: 100%; text-align: center; }
#header {width: 72%; background: rgb(128, 128, 128); margin-top: 0px; padding:5px 0px
15px 0px;}
#header h3 {width: 100%; margin:auto; color: #FFFFFF;}
#container {width: 100%; margin:auto}
#container h3 {color: #000;}
#container #content {margin-top: 20px;}
.add-student-button {
border: 1px solid #666;
border-radius: 5px;
padding: 4px;
font-size: 12px;
font-weight: bold;
width: 120px;
padding: 5px 10px;
```

```
margin-bottom: 15px;
background: #ccccc;
}
.sidenav {
height: 100%;
 width: 200px;
 border-color: #FFFFF;
 position: fixed;
 z-index: 1;
 top: 0;
 left: 0;
 background-color: #000080;
 overflow-x: hidden;
 padding-top: 20px;
}
.sidenav a {
 padding: 6px 6px 6px 32px;
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font-size: 25px;
 color: white;
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}
.sidenav a:hover {
 color: blue;
```

```
}
@media screen and (max-height: 450px) {
 .sidenav {padding-top: 15px;}
 .sidenav a {font-size: 18px;}
}
#page{
 height: 100%;
}
#logo{
font-family: 'Trebuchet MS', sans-serif;
text-align: center;
color: white;
}
.bar-item{
border-color: #FFFFF;
border-width: 3px;
border-bottom: .5px solid rgba(255, 255, 255, 0.247);
```

```
}
Class-student.jsp
html, body{
padding:0px;
font-family: Verdana, Arial, Helvetica, sans-serif;
margin-left: 103px; /* Same as the width of the sidenav */
}
table {
border-collapse:collapse;
border:1px solid gray;
font-family: Tahoma, Verdana, Segoe, sans-serif;
width:72%;
}
th {
border-bottom:1px solid gray;
background:none repeat scroll 0 0 rgb(128, 128, 128);
padding:10px;
color: #FFFFF;
}
tr {
border-top:1px solid gray;
text-align:center;
}
```

```
tr:nth-child(even) {background: #FFFFFF}
tr:nth-child(odd) {background: #BBBBBB}
#wrapper {width: 100%; text-align: center; }
#header {width: 72%; background: rgb(128, 128, 128); margin-top: 0px; padding:5px 0px
15px 0px;}
#header h3 {width: 100%; margin:auto; color: #FFFFFF;}
#container {width: 100%; margin:auto}
#container h3 {color: #000;}
#container #content {margin-top: 20px;}
.add-student-button {
border: 1px solid #666;
border-radius: 5px;
padding: 4px;
font-size: 12px;
font-weight: bold;
width: 120px;
padding: 5px 10px;
margin-bottom: 15px;
background: #ccccc;
}
.sidenav {
 height: 100%;
 width: 200px;
 border-color: #FFFFF;
```

```
position: fixed;
 z-index: 1;
 top: 0;
 left: 0;
 background-color: #000080;
 overflow-x: hidden;
padding-top: 20px;
}
.sidenav a {
 padding: 6px 6px 6px 32px;
 text-decoration: none;
 font-size: 25px;
 color: white;
 display: block;
}
.sidenav a:hover {
 color: blue;
}
@media screen and (max-height: 450px) {
 .sidenav {padding-top: 15px;}
 .sidenav a {font-size: 18px;}
}
#page{
 height: 100%;
```

```
}
#logo{
font-family: 'Trebuchet MS', sans-serif;
text-align: center;
color: white;
}
.bar-item{
border-color: #FFFFF;
border-width: 3px;
border-bottom: .5px solid rgba(255, 255, 255, 0.247);
}
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
```

```
<title>Login</title>
k 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 Teachers</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>Subjects</h3>
</div>
</div>
<div id="container">
<div id="content">
```

```
Name
Shortcut
<c:forEach var="tempSubject" items="${SUBJECTS_LIST }">
${tempSubject.name}
${tempSubject.shortcut}
</c:forEach>
</div>
</div>
</div>
</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 Teachers</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>Teachers</h3>
</div>
</div>
<div id="container">
<div id="content">
First Name
```

```
Last Name
age
<c:forEach var="tempStudent" items="${TEACHERS_LIST}">
${tempStudent.fname}
${tempStudent.lname}
${tempStudent.age}
</c:forEach>
</div>
</div>
</div>
</body>
</html>
```