BITP 3123 Distribute Application Development

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# Solution and Test Result Document for Lab 11

*prepared by*

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# Exercise 1: Setting Lab 11

Record the outcome of Exercise 1 in the following table.

| Expected Outcome | Result (Pass/Fail) |
|---|---|
| 1. **jspdemo** is successfully created. | Pass |
| 2. **jsp** folder is successfully created in **WebContent**. | Pass |

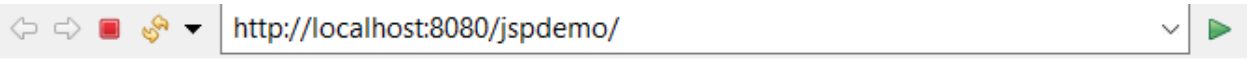
# Exercise 2: Importing File to Project

Record the outcome of Exercise 1 in the following table.

| Expected Outcome | Result (Pass/Fail) |
|---|---|
| 3. **index.jsp** is successfully put in **WebContent**. | Pass |
| 4. Other jsp files are put into the **jsp** folder. | Pass |
| 5. All Java classes are put into a package named **demo.hogwarts**. | Pass |

# Exercise 3: Testing the Lab 11 Setup

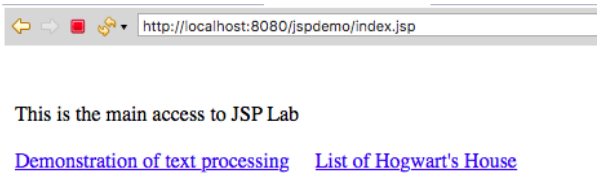
## Test Result




This is the main access to JSP Lab

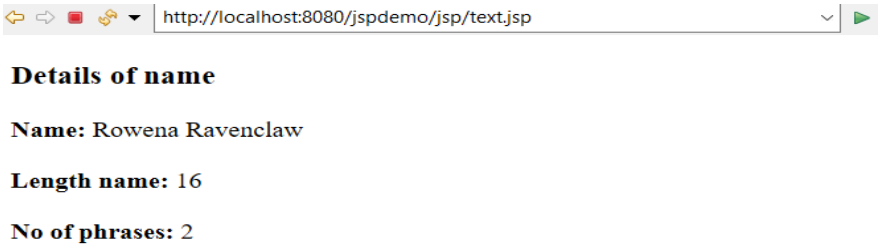
Demonstration of text processing  List of Hogwart's House

Record the result from Exercise 3 in the following table.

| Test Case | Expected Outcome | Result (Pass/Fail) |
|---|---|---|
| 1. **jspdemo** is up and running. |   | Pass |

# Exercise 4: Amend JSP Code

## Solution

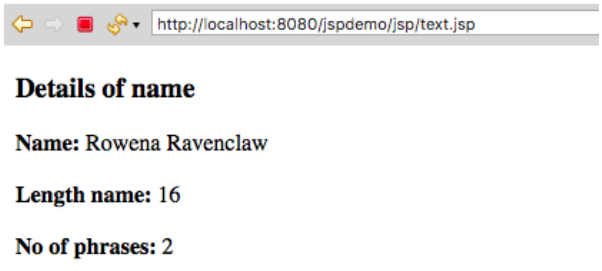



Put your solution for **text.jsp** below.

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Demonstration of Text Processing</title>
</head>
<%

	// Define a string to represent a name
	String name = "Rowena Ravenclaw";

	// Get length of the name
	// insert your code here
	int nameLength = name.length();


	// Get number of phrases in the name
	// insert your code here. Use split to count the phrases in the name
	int length = name.split(" ").length;

%>

<body>

<h3>Details of name</h3>

<b>Name:</b> <%= name %><br><br>
<b>Length name:</b> <%= nameLength %><br><br>
<b>No of phrases:</b> <%= length %><br><br>


</body>

</html>
```

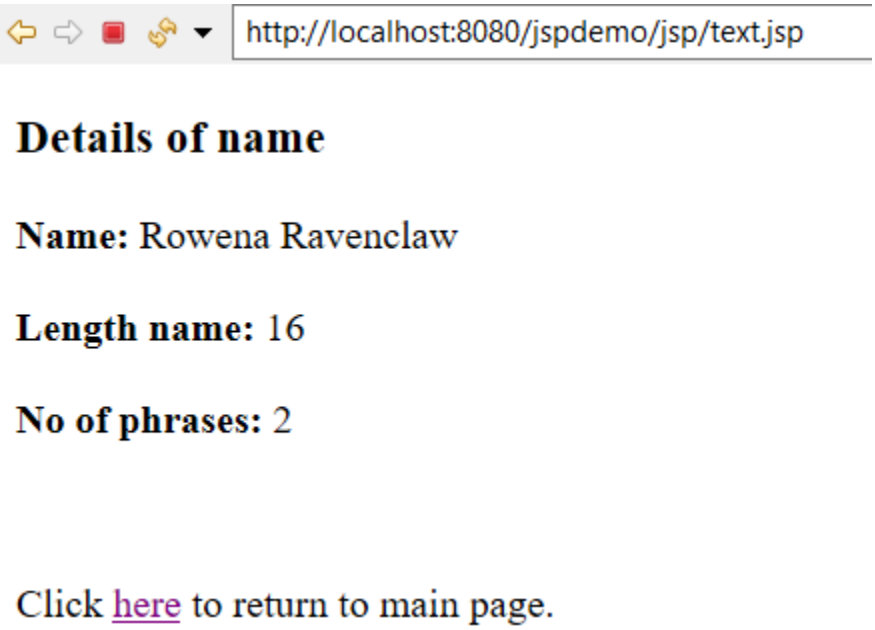
## Test Result

Record the result from Exercise 4 in the following table.

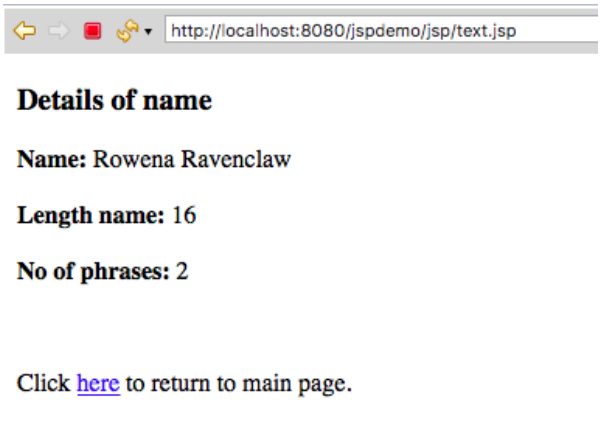
| Test Case | Expected Outcome | Result (Pass/Fail) |
|---|---|---|
| 1. To display name, length and number of phrases in the name. |  | **Pass** |

# Exercise 5: Including a Footer Menu

Test Result

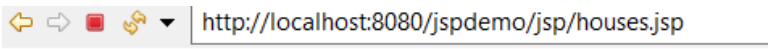



Record the result from Exercise 5 in the following table.

| Test Case | Expected Outcome | Result (Pass/Fail) |
|---|---|---|
| 1. To display menu at the page's footer |   | **Pass** |

# Exercise 6: Amend More JSP Codes

## Solution




**List of Hogwarts Houses**

| House Name | Founder | View Details |
|---|---|---|
| Gryffidor | Godric Gryffidor | View |
| Slyterin | Salazar Slyterin | View |
| Hufflepuff | Helga Hufflepuff | View |
| Ravenclaw | Rowena Ravenclaw | View |

Total records : 4 houses

Click here to return to main page.

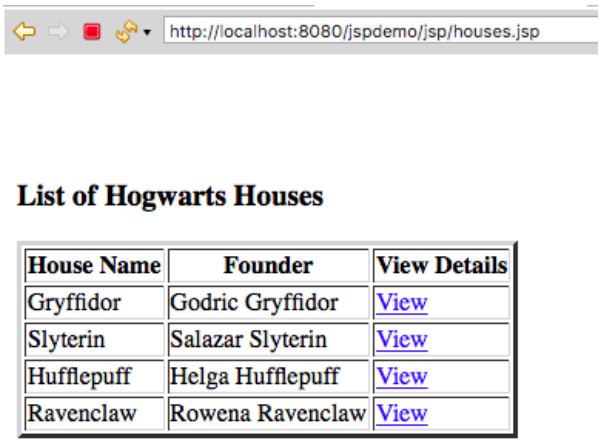
Put your solution for **houses.jsp** in below.

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


<%@ page import="java.util.List" %>

<%@ page import="demo.hogwarts.House" %>
<%@ page import="demo.hogwarts.HouseFacade" %>


<%--This page shall display a list of houses in Hogwarts --%>

<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>List of Hogwarts Houses</title>
```

```
</head>

<%

	// Get a list of house for HouseFacade, store in List<House>
	HouseFacade houseFacade = new HouseFacade();
	List<House> houses = houseFacade.getHouses();

%>

<body>

<br><br><br>
<h3>List of Hogwarts Houses</h3>

<table border="3">
	<tr>
		<th>House Name</th>
		<th>Founder</th>
		<th>View Details</th>
	</tr>
<%

	// Display the houses using for loop
	for ( House house:houses ){
%>
	<tr>
		<td><%= house.getName() %></td>
		<td><%= house.getFounder() %></td>
		<td><a href="details.jsp?id=<%= house.getHouseId() %>">View</a></td>
	</tr>
<%

	}
%>
</table>

<br>
Total records : <%= houses.size() %> houses
<br>

<!--  Include a tooter menu -->
<jsp:include page="footerMenu.html" />

</body>
</html>
```

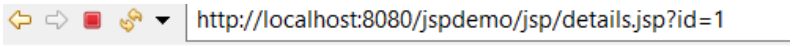
## Test Result

Record the result from Exercise 6 in the following table.

| Test Case | Expected Output | Result (Pass/Fail) |
|---|---|---|
| 1. To display a list of houses in Hogwarts |  | Pass |
| 2. To display menu as footer in houses.jsp | Menu from **footerMenu.html** is displayed | Pass |
| 3. To display a total number of houses in Hogwarts. | The number of houses in Hogwarts is 4. | Pass |

# Exercise 7: Displaying a Selected Record

## Solution




**Details Information of**

**Name:** Gryffidor

**Founder:** Godric Gryffidor

Click here to return to list of Hogwart's Houses

Click here to return to main page.

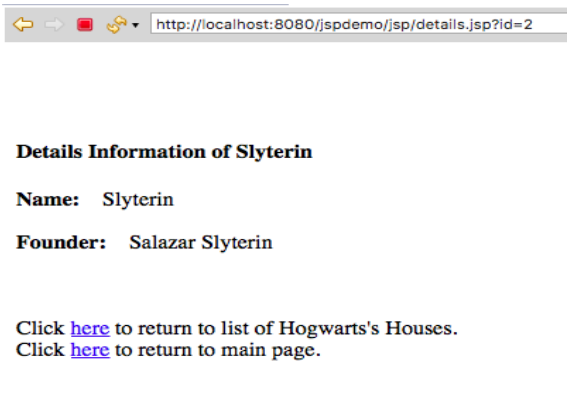
Put your solution for **details.jsp** below.

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

<%-- Import all the necessary classes --%>

<%@ page import="demo.hogwarts.House" %>
<%@ page import="demo.hogwarts.HouseFacade" %>

<%

      // Get parameter value from link
      // Use request.getParameter( ).
      //It is similar practice from the Servlet.
      int houseId = Integer.parseInt(request.getParameter("id"));

      // Wrap into House
      House house = new House();
      house.setHouseId(houseId);

      // Get house. Use house Facade
```

```
        HouseFacade houseFacade = new HouseFacade();
        house = houseFacade.getHouse(house);

%>


<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<!-- The title bar should display the house name -->
<title>Details Information of </title>
</head>
<body>

<br><br><br>
<!-- The heading should display the house name -->
<h4>Details Information of </h4>

<b>Name:</b> <%= house.getName() %><br><br>
<b>Founder:</b> <%= house.getFounder() %><br><br>

Click <a href="houses.jsp">here</a> to return to list of Hogwart's Houses
<!--  Include a footer menu  -->
<jsp:include page="footerMenu.html" />


</body>
</html>
```

## Test Result

Record the result from Exercise 7 in the following table.

| Test Case | Expected Output | Result (Pass/Fail) |
|---|---|---|
| 1. To display the details of the selected house. |  | **Pass** |

# Exercise 8: Applying Changes to Hogwart's Houses

Solution

**Details Information of**

**Name:** Gryffidor

**Founder:** Godric Gryffidor

**Color:** Scarlet-gold

**Mascot:** Lion

Click here to return to list of Hogwart's Houses

Click here to return to main page.

Put your solution for **House.java** below. Highlight the added attribute, getters and setters.

```
package demo.hogwarts;

/**
 * This class represent a house in Hogwarts
 *
 * @author figa
 *
 */
public class House {

	private int houseId;
	private String name;
	private String founder;
	private String color;
	private String mascot;

	public int getHouseId() {
		return houseId;
	}
	public void setHouseId(int houseId) {
		this.houseId = houseId;
	}
	public String getName() {
		return name;
	}
	public void setName(String name) {
		this.name = name;
	}
	public String getFounder() {
		return founder;
	}
	public void setFounder(String founder) {
		this.founder = founder;
	}
	public String  getColor() {
		return color;
	}
	public void setColor(String color) {
	this.color = color;
	}
	public String getMascot() {
	return mascot;
	}
	public void setMascot(String mascot) {
	this.mascot = mascot;
	}



}
```

Put your solution for **loadedHouses( )** below. Highlight your amendments.

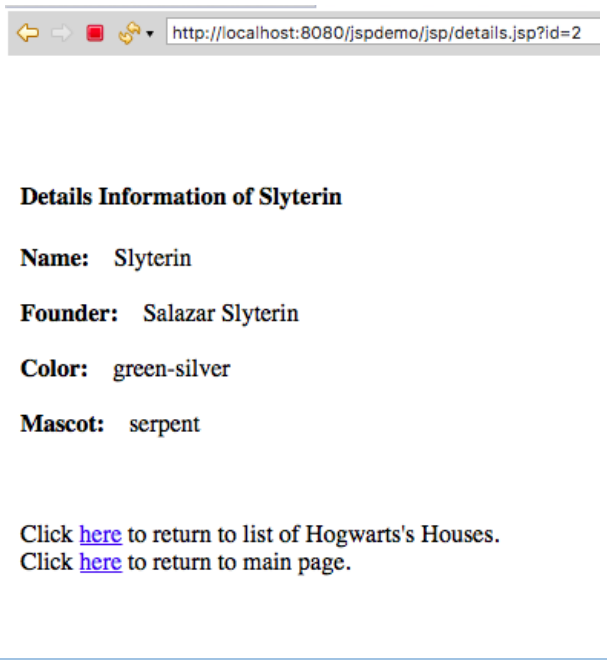
```
/**
        * This method loads data into list
        * @return
        */
       private List<House> loadHouses() {

              // Declaration of sample data
              String houseNames[] = {"Gryffidor", "Slyterin", "Hufflepuff",
"Ravenclaw"};
              String firstNames[] = {"Godric", "Salazar", "Helga", "Rowena"};
              String colors[] = {"Scarlet-gold", "Green-silver", "Yellow-black",
"blue-bronze"};
              String mascots[] = {"Lion", "Serpent", "Badger", "Eagle"};

              // Load data into list
              houses = new ArrayList<House>();
              for (int index=0; index < houseNames.length; index++) {

                     // Wrap data into object
                     House house = new House();
                     house.setHouseId(index+1);
                     house.setName(houseNames[index]);
                     house.setFounder(firstNames[index] + " " + houseNames[index]);
                     house.setColor(colors[index]);
                     house.setMascot(mascots[index]);

                     // Add into list
                     houses.add(house);
              }

              return houses;


       }
```

Put your solution for **details.jsp** below. Highlight the amendments.

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

<%-- Import all the necessary classes --%>

<%@ page import="demo.hogwarts.House" %>
<%@ page import="demo.hogwarts.HouseFacade" %>

<%
      // Get parameter value from link
      // Use request.getParameter( ).
      //It is similar practice from the Servlet.
      int houseId = Integer.parseInt(request.getParameter("id"));

      // Wrap into House
      House house = new House();
      house.setHouseId(houseId);

      // Get house. Use house Facade
      HouseFacade houseFacade = new HouseFacade();
      house = houseFacade.getHouse(house);
%>


<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<!-- The title bar should display the house name -->
<title>Details Information of </title>
</head>
<body>

<br><br><br>
<!-- The heading should display the house name -->
<h4>Details Information of </h4>

<b>Name:</b> <%= house.getName() %><br><br>
<b>Founder:</b> <%= house.getFounder() %><br><br>
<b>Color:</b> <%= house.getColor() %><br><br>
<b>Mascot:</b> <%= house.getMascot() %><br><br>

<br>
<br>
Click <a href="houses.jsp">here</a> to return to list of Hogwart's Houses
<!--  Include a footer menu  -->
<jsp:include page="footerMenu.html" />


</body>
</html>
```

## Test Result

Record the result from Exercise 8 in the following table.

| Test Case | Expected Output | Result (Pass/Fail) |
|---|---|---|
| 1. To display the details of the selected house. |  | **Pass** |