BITP 3123 Distribute Application Development

Sem 1 2020/2021

Solution and Test Result Document

for Lab 11

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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 |
| 1. **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) |
| 1. **index.jsp** is successfully put in **WebContent**. | Pass |
| 1. Other jsp files are put into the **jsp** folder. | Pass |
| 1. All Java classes are put into a package named **demo.hogwarts**. | Pass |

# Exercise 3: Testing the Lab 11 Setup

## Test Result

Graphical user interface, text, application, email

Description automatically generated

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

Graphical user interface, text, application

Description automatically generated

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

Graphical user interface, text, application

Description automatically generated

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

Table

Description automatically generated

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 |
| 1. To display menu as footer in houses.jsp | Menu from **footerMenu.html** is displayed | Pass |
| 1. 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

Graphical user interface, text, application, email

Description automatically generated

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

Graphical user interface, text, application, email

Description automatically generated

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** fiqa  \*  \*/  **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** |