Date 19/5/2023

CSM3023

WEB BASED APPLICATION DEVELOPMENT

DR FAIZAH BINTI APLOP

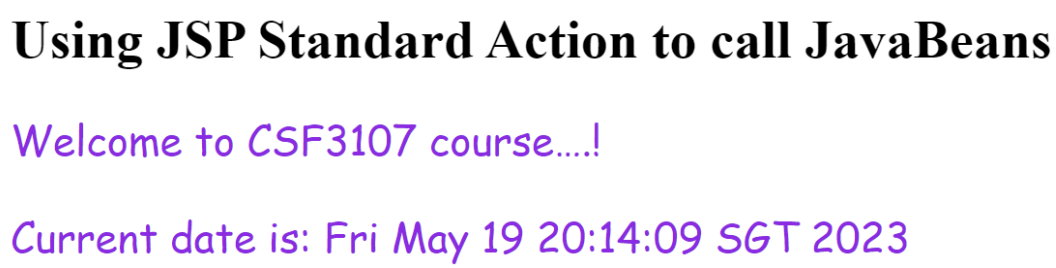
OMAR ISMAIL ABDJALEEL ALOMORY

LAB 5(MP2)

Task 1: Using Scriplet to Access a Simple JavaBeans:

Compiled successfully.

Output



Reflection:

1. What you have learnt from this exercise?

I have learnt how to use JSP page directive include to add page info and other properties such as language and importing libraries (Date, even JavaBeans classes) to be used in the JSP page. Then we call these objects from JavaBeans to perform some tasks, and the Date object to display the date and time.

2. Explain the differences when calling JavaBeans using JSP Standard Action and Java Scriptlet?

- JSP Standard Actions: Standard Actions are XML-like tags that are used to perform specific actions in JSP.

```
<jsp:useBean id="myBean" class="com.example.MyBean" scope="request" />
<jsp:setProperty name="myBean" property="myProperty" value="someValue" />
```

- Java Scriptlets: Scriptlets allow you to embed Java code directly within your JSP file using <% %> tags.

```
<% com.example.MyBean myBean = new com.example.MyBean();
myBean.setMyProperty("someValue"); %>
```

Task 2: Problem Solving using JavaBeans:

Compiled successfully (Register.jsp).

```
ant -f "C:\\Users\\komar\\OneDrive - umt.edu.my\\Semester 4\\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\\Lab solution\\Lab5" -Dnb.internal.action.name=compile.single -Dfo
compile-single-jsp:
init:
deps-module-jar:
deps-ear-jar:
deps-jar:
library-inclusion-in-archive:
library-inclusion-in-manifest:
compile:
Compiling 1 source file to C:\Users\komar\OneDrive - umt.edu.my\Semester 4\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\Lab solution\Lab5\build\generated\classes
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

Reflection:

1. What you have learnt from this exercise?

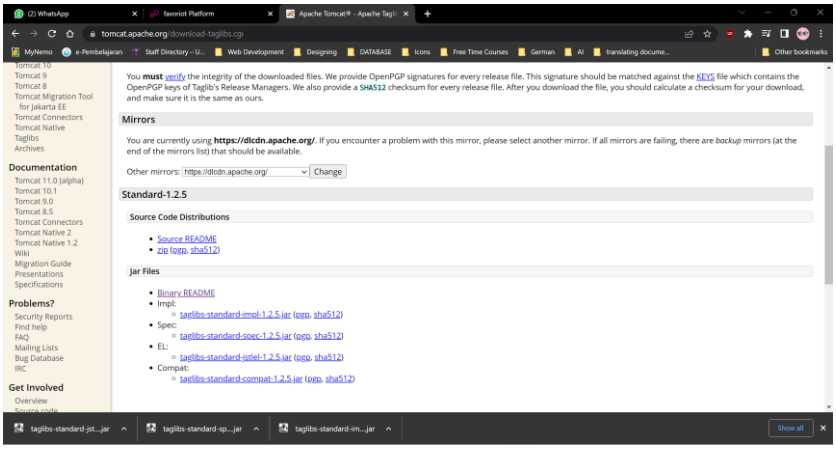
I have learnt how to use JavaBeans to process the client logic such as the amount; the amount is processed in the JavaBeans, check the type of trying no then sets the proper price for it, after that checks if he/she is a student, if he/she a student then discount will be applied, otherwise no discount will be applied. The other variables will be set as well such as IC No, Name, etc.

2. Describe the steps how you construct Register JavaBeans?

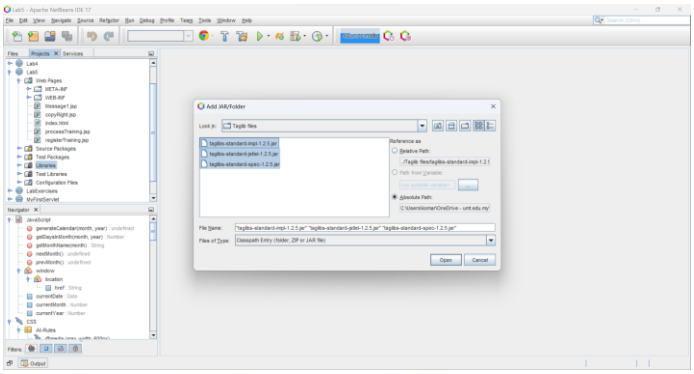
- Create a new Java class named Register.
- Declare the private member variables (**`icNo, name, traningType, noOfPax, stuCheck, amount`**) with appropriate data types to represent the attributes of the registration form.
- Generate the getters and setters for each member variable to provide access to their values.
- Implement the getters and setters for each member variable using the appropriate naming conventions. These methods will allow you to get and set the values of the corresponding attributes.
- Implement the logic in the **`setTraningType`** method to set the **`traningType`** attribute based on the provided **`switchCode`**. Inside the method, use a switch statement to assign the appropriate training type and set the corresponding amount.
- Implement the **`setStuCheck`** method to set the **`stuCheck`** attribute based on the provided value. If the **`stuCheck`** is equal to "1", set it to "Yes"; otherwise, set it to "No".
- Implement the **`setAmount`** method to calculate the amount based on the conditions specified. If the **`isStuCheck()`** method does not contain "No", calculate the discounted amount by multiplying the base amount with the number of participants and subtracting 10% from it. Otherwise, set the amount to

Task 3: Installing JSTL Taglibs:

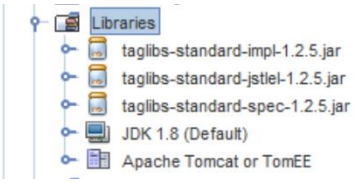
Downloaded successfully.



Uploaded to NetBeans:



Added successfully.



Reflection:

What have you learnt from this exercise?

I learned how to download the JSTL Taglibs, then I uploaded it to my IDE.

Task 4: Using Java Standard Tag Library (JSTL)

Task 4.1

Compiled successfully.

```
ant -f "C:\\Users\\komar\\OneDrive - umt.edu.my\\Semester 4\\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\\Lab solution\\Lab5" -Dnb.internal.action.name=compile.single -Dfo
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deps-jar:
library-inclusion-in-archive:
library-inclusion-in-manifest:
compile:
Compiling 1 source file to C:\Users\komar\OneDrive - umt.edu.my\Semester 4\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\Lab solution\Lab5\build\generated\classes
BUILD SUCCESSFUL (total time: 5 seconds)
```

Output

Use JSTL's features

Welcome to CSF3107 – Web Programming courses..!

Task 4.2

Compiled successfully.

```
ant -f "C:\\Users\\komar\\OneDrive - umt.edu.my\\Semester 4\\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\\Lab solution\\Lab5" -Dnb.internal.action.name=compile.single -Dfo
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library-inclusion-in-archive:
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BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

User Details

Name	Mohamad Nor
Surname	Hassan
Password	••••••••
Gender	◉ Male ○ Female
Type of User	Advanced
Prefer Language	☑ Malay ☐ English ☐ Mandarin ☐ Tamil

Submit Cancel

Retrieve info using :c param & display it using c:out

First Name : Mohamad Nor

Surname : Hassan

Gender : Male

Type of User : Advanced

Prefer Language : Malay

User Details

Name	Mohamad Nor
Surname	Hassan
Password	••••••••••
Gender	◉ Male ○ Female
Type of User	Advanced
Prefer Language	☑ Malay ☑ English ☑ Mandarin ☐ Tamil

Submit Cancel

Retrieve info using :c param & display it using c:out

First Name : Mohamad Nor

Surname : Hassan

Gender : Male

Type of User : Advanced

Prefer Language :

- Malay
- English
- Mandarin

Task 4.3

Compiled successfully.

```
ant -f "C:\\Users\\komar\\OneDrive - umt.edu.my\\Semester 4\\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\\Lab solution\\Lab5" -Dnb.internal.action.name=compile.single -Dfor
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deps-ear-jar:
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library-inclusion-in-archive:
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BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

Using JSTL formatting for formatting

Number to be formatted is 2880.4638

Formatting number as currency with currency code : MYR2,880.46

Formatting number to the nearest 2 integer digit : 80.464

Formatting number by grouping : 2,880.464

Formatting number to the nearest 3 decimal places : 2,880.464

Formatting number with percentage symbol : 288,046%

Reflection:

1. What the purpose of using JSTL's tag library?

JSTL is a collection of useful JSP tags which encapsulates core functionality common to many JSP applications. The purpose of it is to present the appearance of information in JSP's page.

2. List FIVE(5) categories of JSTL library.

Core Tags, Formatting Tags, SQL Tags, JSTL Function Tags, XML Tags.

Task 5: Using JSP Standard Tag Library

Task 5.1 Using JSTL's fmt to format Date

Compiled successfully.

```
ant -f "C:\\Users\\komar\\OneDrive - umt.edu.my\\Semester 4\\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\\Lab solution\\Lab5" -Dnb.internal.action.name=compile.single -Dfor
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BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

Use fmt:formatDate features

Time (fmt:formatDate type="time"): **2:21:25 AM**

Date (fmt:formatDate type="date"): **May 21, 2023**

Date, Time (fmt:formatDate type="both"): **May 21, 2023 2:21:25 AM**

Date, Time Short (fmt:formatDate type="both" dateStyle="short"): **5/21/23 2:21 AM**

Date, Time Medium (fmt:formatDate type="both" dateStyle="medium" timeStyle="medium"): **May 21, 2023 2:21:25 AM**

Date, Time Long (fmt:formatDate type="both" dateStyle="long" timeStyle="long"): **May 21, 2023 2:21:25 AM SGT**

Date, Time (dd-MM-yyyy HH:mm:ss): **21-05-2023 02:21:25**

Now String (dd-MM-yyyy HH:mm): **21-05-2023 02:21**

Task 5.2 Using JSTL's fmt to Parse Date

Compiled successfully.

```
ant -f "C:\\Users\\komar\\OneDrive - umt.edu.my\\Semester 4\\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\\Lab solution\\Lab5" -Dnb.internal.action.name=compile.single -Dfor
compile-single-jsp:
init:
deps-module-jar:
deps-ear-jar:
deps-jar:
library-inclusion-in-archive:
library-inclusion-in-manifest:
compile:
Compiling 1 source file to C:\Users\komar\OneDrive - umt.edu.my\Semester 4\CSM3023 WEB BASED APPLICATION DEVELOPMENT by FAIZAH BINTI APLOP APLOP\Lab solution\Lab5\build\generated\classes
BUILD SUCCESSFUL (total time: 0 seconds)
```

Output

fmt: parseDate example

dateTimeString: 17-11-2015 11:49

the date time after parsing: Tue Nov 17 11:49:00 SGT 2015

Date only (dd/MM/yyy): 17/11/2015

Reflection:

1. What you have learnt from this exercise?

I have learnt how to use JSTL to modify and adjust the data entered from user such as Date (parsing and different type of display format), numeric, and string with the association of JSTL's taglib.

Exercises

1. Write a JSP's form that asks the user to key-in the radius of circle. The program should calculate the area of circle and the perimeter of circle. Finally, use JSTL library to format your result into 3 decimal places.

Output

Circle Calculation

Enter the radius of the circle: 7

Calculate

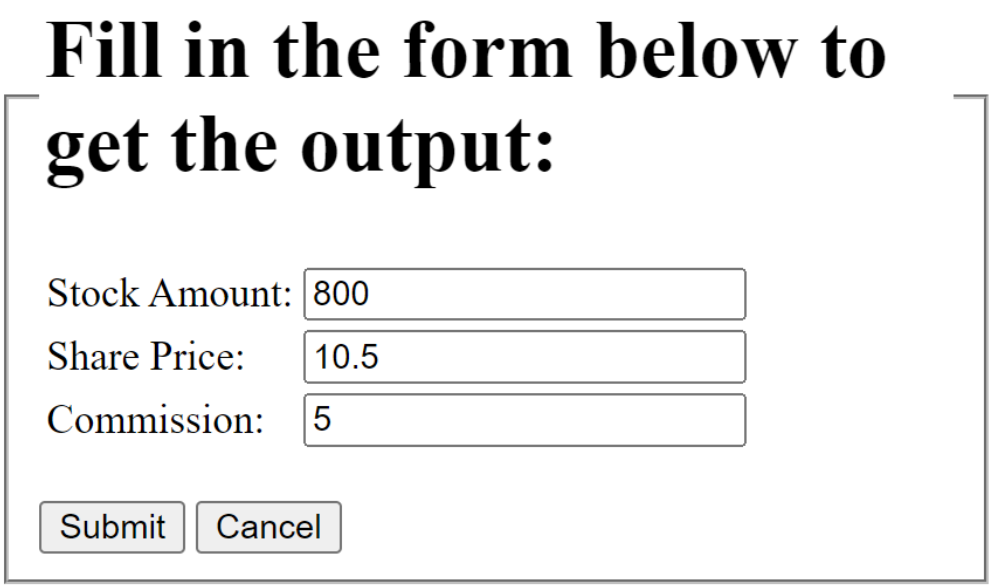
Circle Calculation Result

Result	
Radius:	7
Area:	153.938
Perimeter:	43.982

2. Rahim bought 800 shares of stock at a price of RM10.50 per share. He must pay her stock broker a 5 percent commission for the transaction. Write a web based program that calculates and displays the following:
   - The amount paid for the stock alone without the commission.
   - The amount of the commission.
   - The total amount paid (for the stock plus the commission).

   You should use JavaBeans to implement business logic and JSTL for display purposes.

Output



Amount need to be payed

Record Entered by User:

The share of Stock: 800

The price per Share: 10.5

The Stock broker Commission: 5%

Output:

The amount paid for the stock alone without the commission: 8,400.00

The amount of the commission : 420.00 (5%)

Total + 5% :8,820.00
