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BCS3323 – Software Testing and Maintenance

Component testing Lab tutorial

Editors

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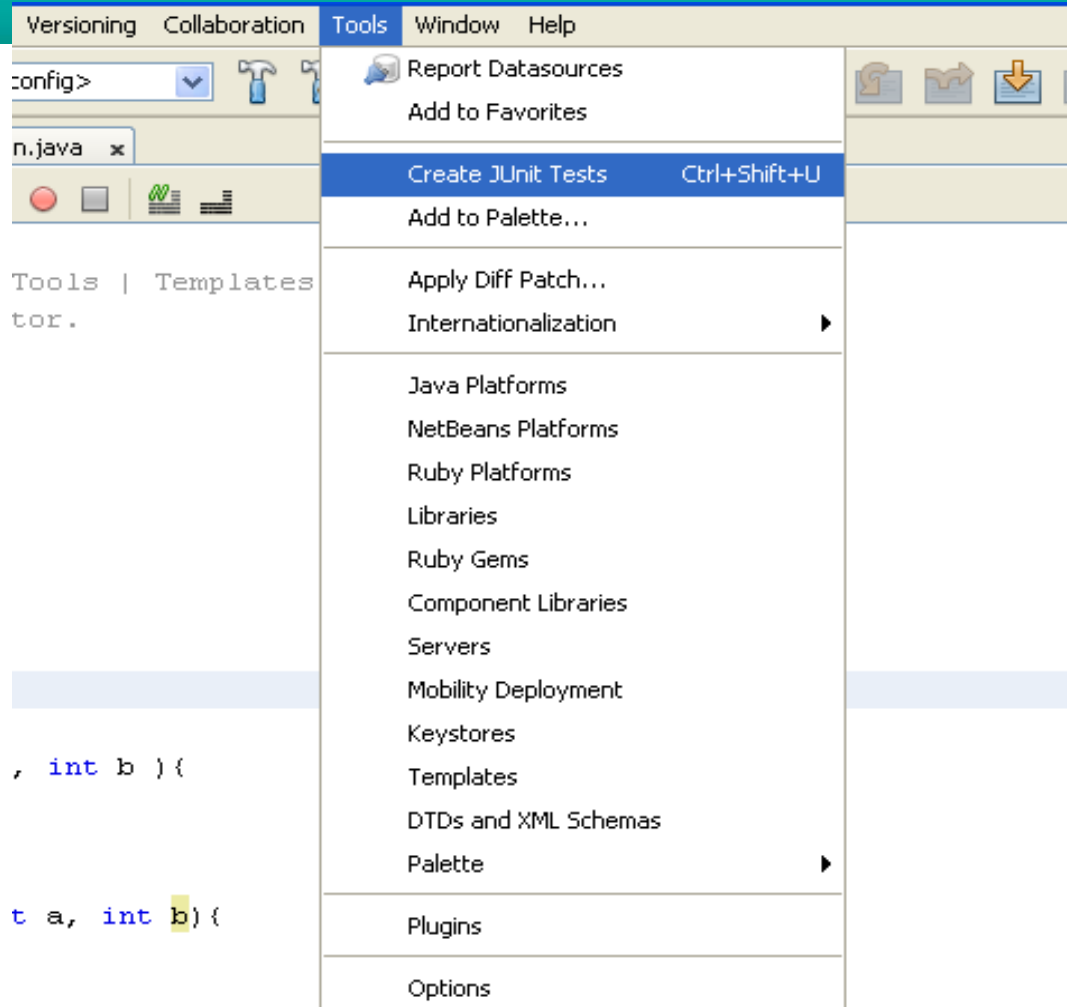
SimpleMath.java

```
11  /*
10  * @author Kiki
11  */
12  public class SimpleMath {
13
14
15  [-]     public int doAddition(int a, int b ){
16
17         return a + b ;
18     }
19  [-]     public int doSubtraction(int a, int b){
20
21         return a / b;
22     }
23
24  [-]     public void printAddition(int a, int b){
25
26         System.out.println("var1 = "+a" , var2 = "+b" " +
27             "hasilnya adalah = "+doAddition(a, b));
28
29     }
30 }
```

Create Unit Test

- Choose this menu in netbeans
 - Tools > Create Junit Test
- Or just simply press Ctrl + Shift + U.
- A window dialogue will appear, choose suitable options.
- Or you can leave it as is. Like I usually do 😊.
- Test case will automatically build inside the test package folder.

Unit Test Menu



Unit Test Window

Create Tests

Class to Test: org.kiki.testlearning.SimpleMath

Class Name:

Location:

Code Generation

Method Access Levels	Generated Code
<input checked="" type="checkbox"/> Public	<input checked="" type="checkbox"/> Test Initializer
<input checked="" type="checkbox"/> Protected	<input checked="" type="checkbox"/> Test Finalizer
<input checked="" type="checkbox"/> Package Private	<input checked="" type="checkbox"/> Default Method Bodies

Generated Comments

- Javadoc Comments
- Source Code Hints

OK Cancel Help

SimpleMathTest.java

```
41 |     * Test of doAddition method, of class SimpleMath.
42 |     */
43 |     @Test
44 |     public void testDoAddition() {
45 |         System.out.println("doAddition");
46 |         int a = 2;
47 |         int b = 2;
48 |         SimpleMath instance = new SimpleMath();
49 |         int expectedResult = 4;
50 |         int result = instance.doAddition(a, b);
51 |         assertEquals(expResult, result);
52 |         // TODO review the generated test code and remove the default call to fail.
53 |
54 |     }
55 |
56 |     /**
57 |     * Test of doSubtraction method, of class SimpleMath.
58 |     */
59 |     @Test
60 |     public void testDoSubtraction() {
61 |         System.out.println("doSubtraction");
62 |         int a = 3;
63 |         int b = 1;
64 |         SimpleMath instance = new SimpleMath();
65 |         int expectedResult = 3;
66 |         int result = instance.doSubtraction(a, b);
67 |         assertEquals(expResult, result);
68 |         // TODO review the generated test code and remove the default call to fail.
69 |
70 |     }
```

Test Result

JUnit Test Results

All 3 tests passed.

- org.kiki.testlearning.SimpleMathTest **passed**
 - testDoAddition **passed** (0.015 s)
 - testDoSubtraction **passed** (0.0 s)
 - testPrintAddition **passed** (0.0 s)

```
doAddition
doSubtraction
printAddition
var1 = 3 , var2 = 3 hasilnya adalah
|
```

HTTP Monitor Output JUnit Test Results