

JUNIT5 AND MOCKITO (WEEK 3)

Exercise 1: Setting Up Junit

Pom.xml

```
> <dependencies>
>   <dependency>
>     <groupId>junit</groupId>
>     <artifactId>junit</artifactId>
>     <version>4.13.1</version>
>   </dependency>
>   <dependency>
>     <groupId>commons-io</groupId>
>     <artifactId>commons-io</artifactId>
>     <version>1.3.2</version>
>   </dependency>
>   <dependency>
>     <groupId>org.seleniumhq.selenium</groupId>
>     <artifactId>selenium-java</artifactId>
>     <version>4.1.0</version>
>   </dependency>
>   <dependency>
>     <groupId>com.googlecode.json-simple</groupId>
>     <artifactId>json-simple</artifactId>
>     <version>1.1.1</version>
>   </dependency>
>   <dependency>
>     <groupId>com.browserstack</groupId>
>     <artifactId>browserstack-java-sdk</artifactId>
>     <version>LATEST</version>
>     <scope>compile</scope>
>   </dependency>
> </dependencies>
```

Com.example

```
public class Calculator {

    public int add(int a , int b) {
        return a+b;
    }

}
```

Test class

```
package com.example;
import org.junit.Test;

public class CalculatorTest {
    @Test
    public void testAdd() {
        Calculator calc=new Calculator();
        int result=calc.add(2, 3);
        assertEquals(5,result);
    }
}
```

Output:

```
[INFO] ----- \Com.example.junitdemo \-----
[INFO] Building junit-browserstack 0.0.1-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- dependency:3.3.0:properties (getClasspathFileNames) @ junitdemo ---
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ junitdemo ---
[INFO] skip non existing resourceDirectory C:\JAVA\junitdemo\src\main\resources
[INFO]
[INFO] --- compiler:3.11.0:compile (default-compile) @ junitdemo ---
[INFO] No sources to compile
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ junitdemo ---
[INFO] skip non existing resourceDirectory C:\JAVA\junitdemo\src\test\resources
[INFO]
[INFO] --- compiler:3.11.0:testCompile (default-testCompile) @ junitdemo ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- surefire:3.0.0-M5:test (default-test) @ junitdemo ---
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 19.121 s
[INFO] Finished at: 2025-07-08T15:03:47+05:30
[INFO] -----
```

Exercise 3: Assertions in Junit

```
. package com.example;
?@import org.junit.Test;
} import static org.junit.Assert.*;
! public class AssertionTest {
?@     @Test
5     public void testAssertions()
7     {
}         assertEquals(5,2+3);
9         assertTrue(5>3);
)         assertFalse(5<3);
.         assertNull(null);
2         assertNotNull(new Object());
}     }
! }
```

Output:

```
[INFO] Building junit-browserstack 0.0.1-SNAPSHOT
[INFO] from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- dependency:3.3.0:properties (getClasspathFileNames) @ junitdemo ---
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ junitdemo ---
[INFO] skip non existing resourceDirectory C:\JAVA\junitdemo\src\main\resources
[INFO]
[INFO] --- compiler:3.11.0:compile (default-compile) @ junitdemo ---
[INFO] No <terminated> C:\Users\stuti\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full\win32\x86_64_21.0.1.v20231028
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ junitdemo ---
[INFO] skip non existing resourceDirectory C:\JAVA\junitdemo\src\test\resources
[INFO]
[INFO] --- compiler:3.11.0:testCompile (default-testCompile) @ junitdemo ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- surefire:3.0.0-M5:test (default-test) @ junitdemo ---
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.155 s
[INFO] Finished at: 2025-07-08T15:13:36+05:30
[INFO] -----
```