

 免費電子書

學習

testng

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1: testng

testng。

testng。 testng。

```
1.0 201767
```

Examples

TestNGJDK 7。

<http://testng.org/doc/download.html>testngtestngmaven pom.xmlgradle build.gradle

Maven

```
<repositories>
  <repository>
    <id>jcenter</id>
    <name>bintray</name>
    <url>http://jcenter.bintray.com</url>
  </repository>
</repositories>

<dependency>
  <groupId>org.testng</groupId>
  <artifactId>testng</artifactId>
  <version>6.9.12</version>
  <scope>test</scope>
</dependency>
```

```
repositories {
  jcenter()
}

dependencies {
  testCompile 'org.testng:testng:6.9.12'
}
```

。

TestNG

```
package example;

import org.testng.annotations.*; // using TestNG annotations

public class Test {
```

```

@BeforeClass
public void setUp() {
    // code that will be invoked when this test is instantiated
}

@Test(groups = { "fast" })
public void aFastTest() {
    System.out.println("Fast test");
}

@Test(groups = { "slow" })
public void aSlowTest() {
    System.out.println("Slow test");
}
}

```

setUp() ◦ aFastTest() aSlowTest() ◦

TestNG Hello World

TestNG3◦

1. - [TestNG](#)
2. - [testng.xmlbuild.xml](#)
3. [TestNG](#) - ANTIDEclipseIntelliJIDEA

RandomNumberGenerator generateFourDigitPin4PINint ◦ 4◦

```

package example.helloworld;

public class RandomNumberGenerator {

    public int generateFourDigitPin(){
        return (int)(Math.random() * 10000);
    }
}

```

TestNG

```

package example.helloworld;

import org.testng.Assert;
import org.testng.annotations.AfterClass;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.Test;

public class TestRandomNumberGenerator {

    RandomNumberGenerator rng = null;

    @BeforeClass
    public void deSetup(){
        rng = new RandomNumberGenerator();
    }
}

```

```

@Test
public void testGenerateFourDigitPin(){
    int randomNumber = rng.generateFourDigitPin();
    Assert.assertEquals(4, String.valueOf(randomNumber).length());
}

@AfterClass
public void doCleanup(){
    //cleanup stuff goes here
}
}

```

The testng.xml

```

<suite name="Hello World">
  <test name="Random Number Generator Test">
    <classes>
      <class name="example.helloworld.TestRandomNumberGenerator" />
    </classes>
  </test>
</suite>

```

GradleTestNG

build.gradle

```

plugin: 'java'

repositories {
    mavenLocal()
    mavenCentral()
    jcenter()
}

dependencies {
    compile "org.testng:testng:6.9.12"
}

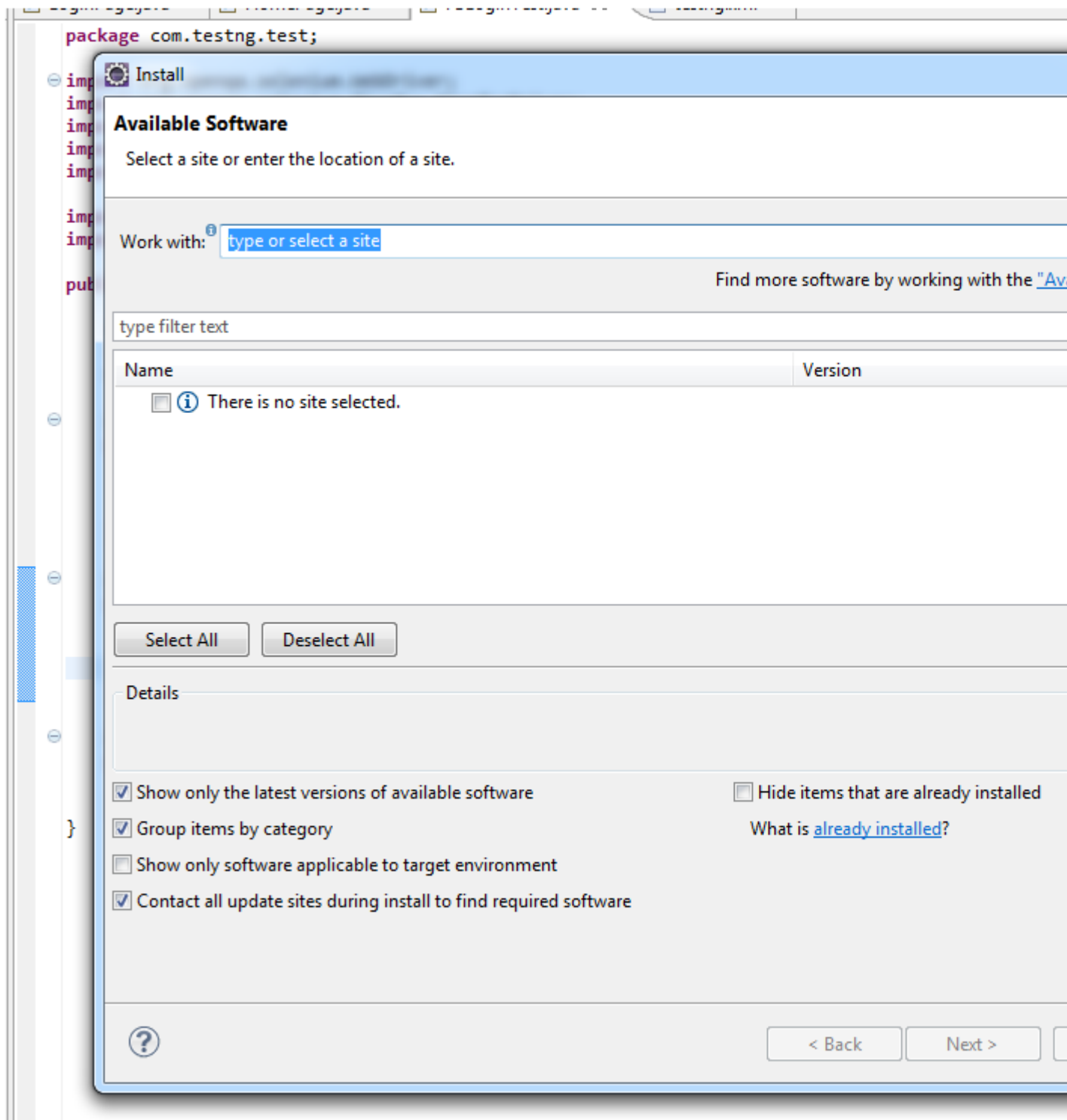
test {
    useTestNG() {
        suiteXmlBuilder().suite(name: 'Sample Suite') {
            test(name: 'Sample Test') {
                classes('') {
                    'class'(name: 'your.sample.TestClass')
                }
            }
        }
    }
}

```

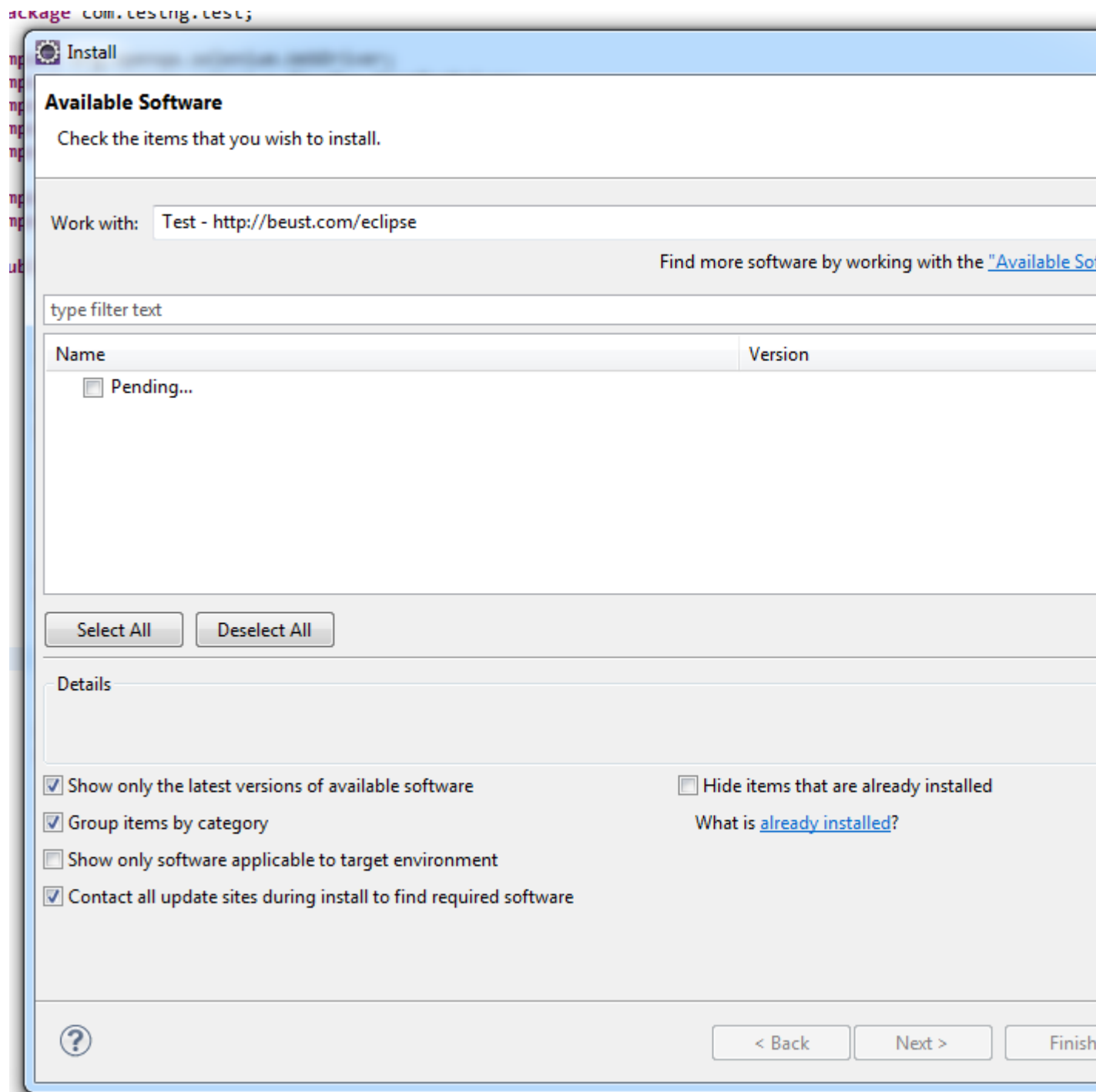
EclipseTestNGxml

eclipseTestNG

- 1.
2. "">""

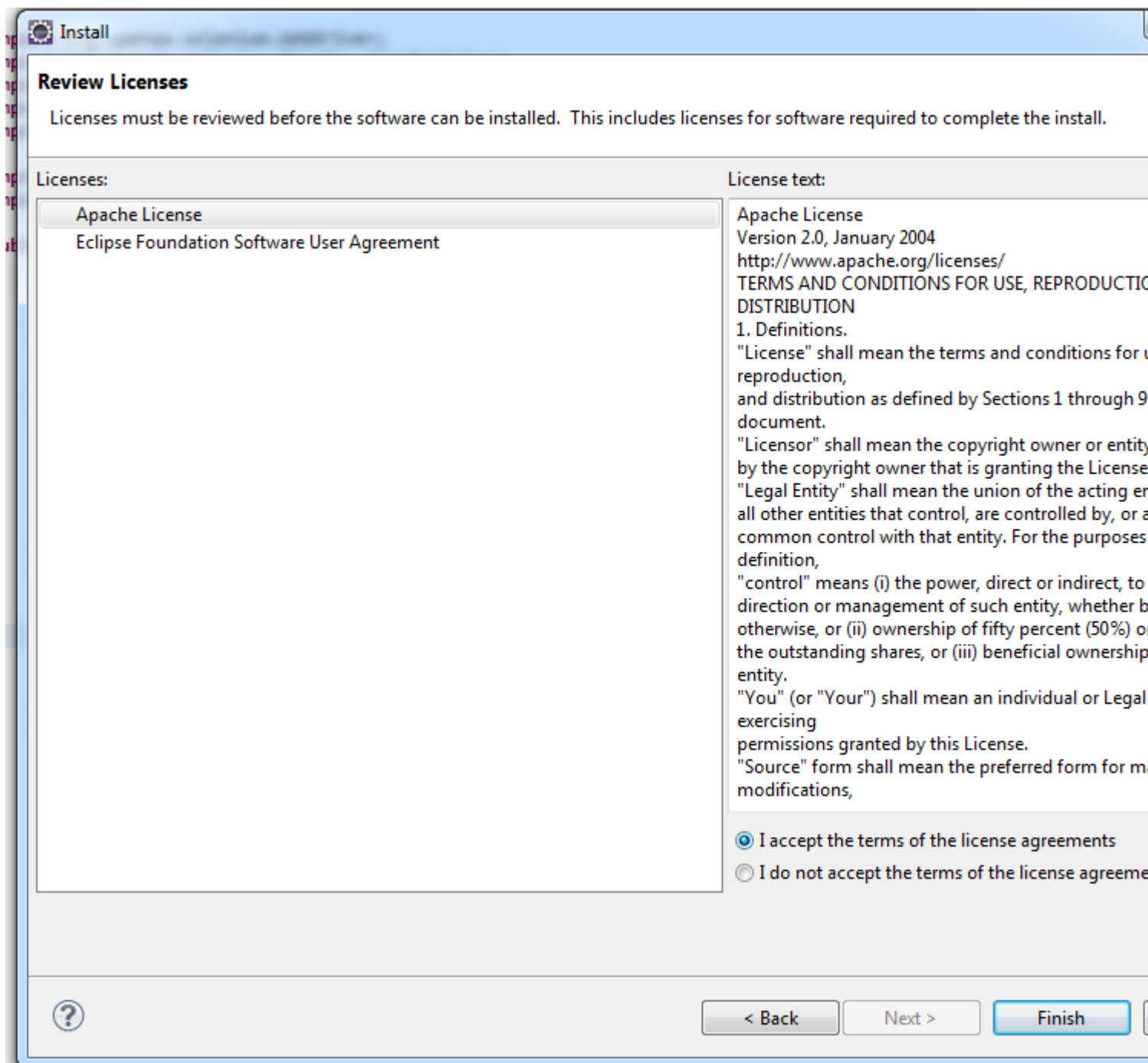


- 3.
4. URL - <http://beust.com/eclipse>



5. TestNG

6.



- 7.
8. TestNG

eclipse.

TestNG

1. >> Java>
2. TestNGClass
3. 1.LoginPage.class
2.HomePage.class

3.FBLoginTest.class

LoginPage

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.support.FindBy;
import org.openqa.selenium.support.PageFactory;

public class LoginPage {

    @FindBy(id = "email")
    private WebElement username;

    @FindBy(id = "pass")
    private WebElement password;

    @FindBy(xpath = "//*[@data-testid='royal_login_button']")
    private WebElement login;

    WebDriver driver;

    public LoginPage(WebDriver driver){
        this.driver = driver;
        PageFactory.initElements(driver, this);
    }
    public void enterUserName(String name){
        username.clear();
        username.sendKeys(name);
    }

    public void enterPassword(String passwr){
        password.clear();
        password.sendKeys(passwr);
    }

    public HomePage clickLoginButton(){
        login.click();
        return new HomePage(driver);
    }
}
```

o

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.support.FindBy;
import org.openqa.selenium.support.PageFactory;

public class HomePage {

    @FindBy(id = "userNavigationLabel")
    private WebElement userDropdown;

    WebDriver driver;

    public HomePage(WebDriver driver){
        this.driver = driver;
    }
}
```

```

        PageFactory.initElements(driver, this);
    }

    public boolean isUserLoggedIn(){
        return userDropdown.isDisplayed();
    }
}

```

FBLoginTest

```

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.testng.Assert;
import org.testng.annotations.Test;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.AfterClass;

import com.testng.pages.HomePage;
import com.testng.pages.LoginPage;

public class FBLoginTest {

    WebDriver driver;
    LoginPage loginPage;
    HomePage homePage;

    @BeforeClass
    public void openFBPage(){
        driver = new FirefoxDriver();
        driver.get("https://www.facebook.com/");
        loginPage = new LoginPage(driver);
    }

    @Test
    public void loginToFB(){
        loginPage.enterUserName("");
        loginPage.enterPassword("");
        homePage = loginPage.clickLoginButton();
        Assert.assertTrue(homePage.isUserLoggedIn());
    }

    @AfterClass
    public void closeBrowser(){
        driver.quit();
    }
}

```

testng.xmlProject.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<suite name="Suite">
  <test name="Test">
    <classes>
      <class name="com.testng.FBLoginTest"/>
    </classes>
  </test> <!-- Test -->
</suite> <!-- Suite -->

```

selenium

seleniumjarProjectBuild。

1. Project> Build path> Configure Build path> Select Libraries> Add external Jars

TestNG xmlxml> Run as> TestNGSuite

:)

testng <https://riptutorial.com/zh-TW/testng/topic/5393/testng>

2: @Test Annotation

- @
- @Test attribute1 = attributeValue attribute2 = attributeValue

alwaysRun	true
	◦
dataProviderClass	◦ ◦ ◦
dependsOnGroups	◦
dependsOnMethods	◦
	◦
	/◦
expectedExceptions	◦ ◦
	/◦
invocationCount	◦
invocationTimeout	◦ invocationCount
	◦ ◦
successPercentage	
	true parallel="methods" ◦ ◦ ◦
	◦
threadPoolSize	◦ invocationCount ◦ invocationCount

Examples

@Test

@Test ◦ ◦

1. @Test -
2. @Test
 - @Test

-
- @Test◦

@Test

```
import org.testng.annotations.Test;

public class TestClass1 {
    public void notTestMethod() {
    }

    @Test
    public void testMethod() {
    }
}
```

@Test

```
import org.testng.annotations.Test;

@Test
public class TestClass2 {
    public void testMethod1() {
    }

    @Test
    public void testMethod2() {
    }
}
```

@Test Annotation <https://riptutorial.com/zh-TW/testng/topic/6716/-test-annotation>

3: TestNG -

Examples

TestNGAPI

```
public class TestngAnnotation {
    // test case 1
    @Test
    public void testCase1() {
        System.out.println("in test case 1");
    }

    // test case 2
    @Test
    public void testCase2() {
        System.out.println("in test case 2");
    }

    @BeforeMethod
    public void beforeMethod() {
        System.out.println("in beforeMethod");
    }

    @AfterMethod
    public void afterMethod() {
        System.out.println("in afterMethod");
    }

    @BeforeClass
    public void beforeClass() {
        System.out.println("in beforeClass");
    }

    @AfterClass
    public void afterClass() {
        System.out.println("in afterClass");
    }

    @BeforeTest
    public void beforeTest() {
        System.out.println("in beforeTest");
    }

    @AfterTest
    public void afterTest() {
        System.out.println("in afterTest");
    }

    @BeforeSuite
    public void beforeSuite() {
        System.out.println("in beforeSuite");
    }

    @AfterSuite
    public void afterSuite() {
        System.out.println("in afterSuite");
    }
}
```

```
}  
  
}
```

C> WORKSPACEtestng.xml。

```
<suite name="Suite1">  
  <test name="test1">  
    <classes>  
      <class name="TestngAnnotation"/>  
    </classes>  
  </test>  
</suite>
```

C\ WORKSPACE> javac TestngAnnotation.java

testng.xmlTest Case。

```
in beforeSuite  
in beforeTest  
in beforeClass  
in beforeMethod  
in test case 1  
in afterMethod  
in beforeMethod  
in test case 2  
in afterMethod  
in afterClass  
in afterTest  
in afterSuite  
  
=====  
Suite  
Total tests run: 2, Failures: 0, Skips: 0  
=====
```

1. **beforeSuite**。
2. **afterSuite**。
3. **beforeTest beforeClass afterClassafterTest**。
4. **beforeMethod**。
5. **afterMethod**。
6. **beforeMethodafterMethod** 。

TestNG - <https://riptutorial.com/zh-TW/testng/topic/7889/testng---->

4: TestNG

- `@Testgroups = {"group1","group.regression"}dependsOnGroups = {"group2","group3"}`

Examples

TestNG

testng.xml Suite/Test ◦ tesng.xml ◦ @Testtestng.xml@Test ◦

Testtestng.xml

```
<suite name="Suite World">
<test name="Test Name">
  <groups>
    <run>
      <include name="functest" />
      <exclude name="regtest" />
    </run>
  </groups>
  <classes>
    <class name="example.group.GroupTest"/>
  </classes>
</test>
</suite>
```

```
package example.group;

import org.testng.annotations.AfterClass;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.Test;

public class GroupTest {

    @BeforeClass
    public void deSetup(){
        //do configuration stuff here
    }

    @Test(groups = { "functest", "regtest" })
    public void testMethod1() {
    }

    @Test(groups = {"functest", "regtest" } )
    public void testMethod2() {
    }

    @Test(groups = { "functest" })
    public void testMethod3() {
    }

    @AfterClass
    public void cleanUp(){
        //do resource release and cleanup stuff here
    }
}
```

```
}
```

```
GroupTest TestNGtestMethod3() ◦
```

- `<include name="functest" /> functest◦`
- `<exclude name="regtest" />regtest◦`
- `testMethod1()testMethod2() regtest◦`
- `testMethod3()regtest◦`

TestNG MetaGroups -

TestNG◦ MetaGroups@Test◦

@Test◦ ◦ MetaGroups◦ **MetaGroup**

1. allstack - liux.jboss.oracleaix.was.db2◦
2. systemtest - allstack regressionacceptance◦

testng.xml

```
<suite name="Groups of Groups">
  <test name="MetaGroups Test">
    <groups>
      <!-- allstack group includes both liux.jboss.oracle and aix.was.db2 groups -->
      <define name="allstack">
        <include name="liux.jboss.oracle" />
        <include name="aix.was.db2" />
      </define>

      <!-- systemtest group includes all groups allstack, regression and acceptance -->
      <define name="systemtest">
        <include name="allstack" />
        <include name="regression" />
        <include name="acceptance" />
      </define>

      <run>
        <include name="systemtest" />
      </run>
    </groups>

    <classes>
      <class name="example.group.MetaGroupsTest" />
    </classes>
  </test>
</suite>
```

MetaGroupsTest

```
package example.group;

import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;
```

```
import org.testng.annotations.Test;

public class MetaGroupsTest {

    @BeforeMethod
    public void beforeMethod(){
        //before method stuffs - setup
    }

    @Test(groups = { "liux.jboss.oracle", "acceptance" })
    public void testOnLinuxJbossOracleStack() {
        //your test logic goes here
    }

    @Test(groups = {"aix.was.db2", "regression" } )
    public void testOnAixWasDb2Stack() {
        //your test logic goes here
    }

    @Test(groups = "acceptance")
    public void testAcceptance() {
        //your test logic goes here
    }

    @Test(groups = "regression")
    public void testRegression(){
        //your test logic goes here
    }

    @AfterMethod
    public void afterMthod(){
        //after method stuffs - cleanup
    }
}
```

TestNG <https://riptutorial.com/zh-TW/testng/topic/5821/testng>

5:

Examples

◦ ◦ Object[][] Iterator<Object[]> @DataProvidername◦

```
import org.testng.annotations.DataProvider;

public class DoublingDataProvider {
    public final static String DOUBLING_DATA_PROVIDER = "doublingDataProvider";

    @DataProvider(name = DOUBLING_DATA_PROVIDER)
    public static Object[][] doubling() {
        return new Object[][]{
            new Object[]{1, 2},
            new Object[]{2, 4},
            new Object[]{3, 6}
        };
    }
}
```

Object[] - ◦

dataProviderdataProvider◦ dataProviderClass◦ - ◦

```
import org.testng.annotations.Test;

import static org.testng.Assert.assertEquals;

public class DoublingTest {

    @Test(dataProvider = DoublingDataProvider.DOUBLING_DATA_PROVIDER, dataProviderClass =
    DoublingDataProvider.class)
    public void testDoubling(int number, int expectedResult) {
        assertEquals(number * 2, expectedResult);
    }
}
```

<https://riptutorial.com/zh-TW/testng/topic/5684/>

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