

## JUnit Guide

版本	作者	时间	描述
v1.0	Paolo	2014-03-01	Initial version
v1.1	Paolo	2014-03-05	1> update JUnit 4.0 download location 2> generate comment for test case class.

<a href="#">下载JUnit</a>	1
<a href="#">将JUnit配置入eclipse</a>	2
<a href="#">@ 导入JUnit</a>	2
<a href="#">@ 配置JUnit源码(可选)</a>	4
<a href="#">@ 另一种导入JUnit并配置其源码的方法 (即从workspace中导入和配置)</a>	6
<a href="#">创建JUnit 测试类 (Test Case类)</a>	12
<a href="#">运行JUnit测试类</a>	17
<a href="#">@ 测试整个测试类</a>	17
<a href="#">@ 测试JUnit测试类内的一个方法</a>	19

### 下载JUnit

# 下载JUnit包, 如junit3.8.1

<http://nchc.sourceforge.net/project/junit/junit/3.8.1/junit3.8.1.zip>

解压缩后如下:

Name	Size	Type
doc		File folder
javadoc		File folder
junit		File folder
cpl-v10.html	15 KB	HTML Document
junit.jar	119 KB	JAR File
README.html	22 KB	HTML Document
src.jar	57 KB	JAR File

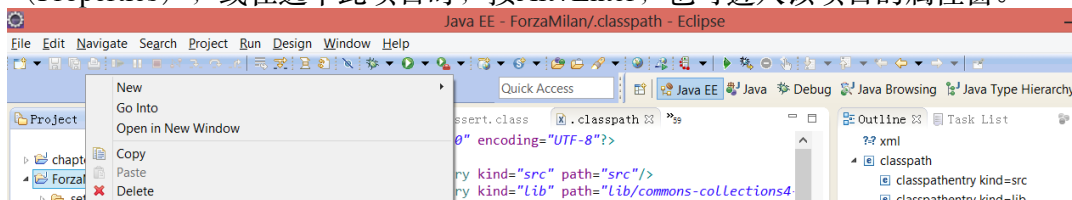
JUnit4.x下载路径为: <https://github.com/junit-team/junit/downloads>

### 将JUnit配置入eclipse

#### @ 导入JUnit

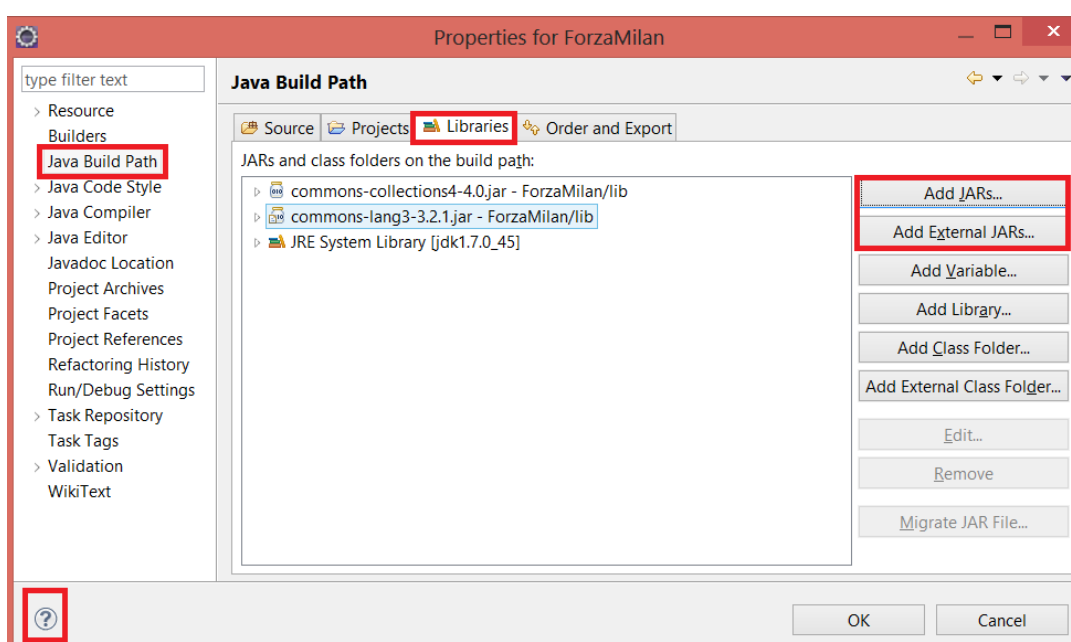
# 运行eclipse java SE或EE版, 选择workspace后即可进入eclipse工作界面

# 鼠标移到某个项目 (project) 上点右键, 在弹出菜单中选择该项目的属性 (Properties), 或在选中此项目时, 按Alt+Enter, 也可进入该项目的属性窗。

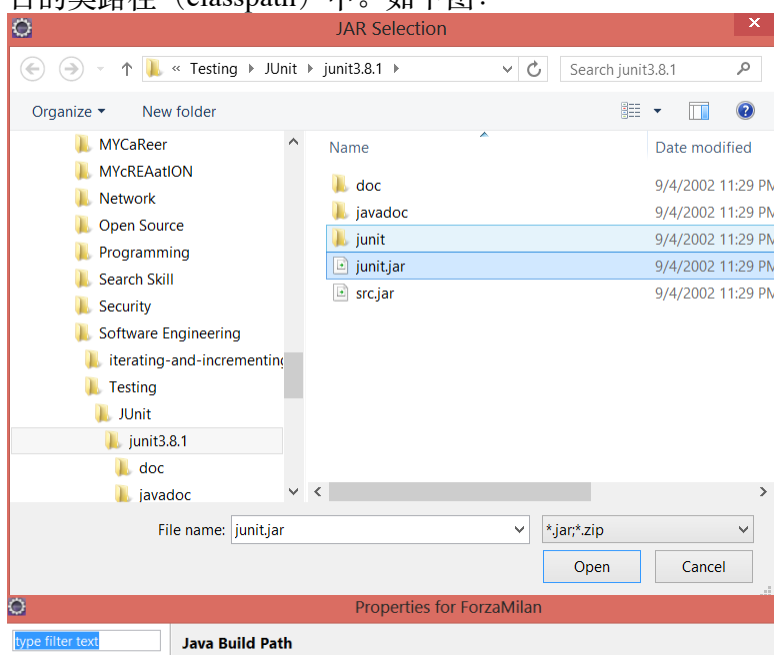


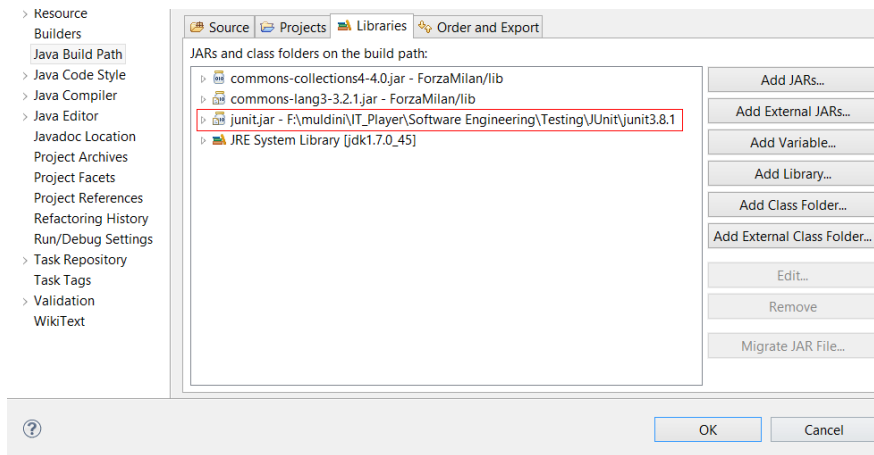


# 在弹出的属性面板内，选择左列的Java Build Path，再选Libraries，若JUnit包所在路径是当前workspace，则可点击Add JARs，否则点击Add External JARs，<欲知Java Build Path的使用说明详情，可点击面板左下角的问号，在弹出窗口中搜索“Java Build Path”>。



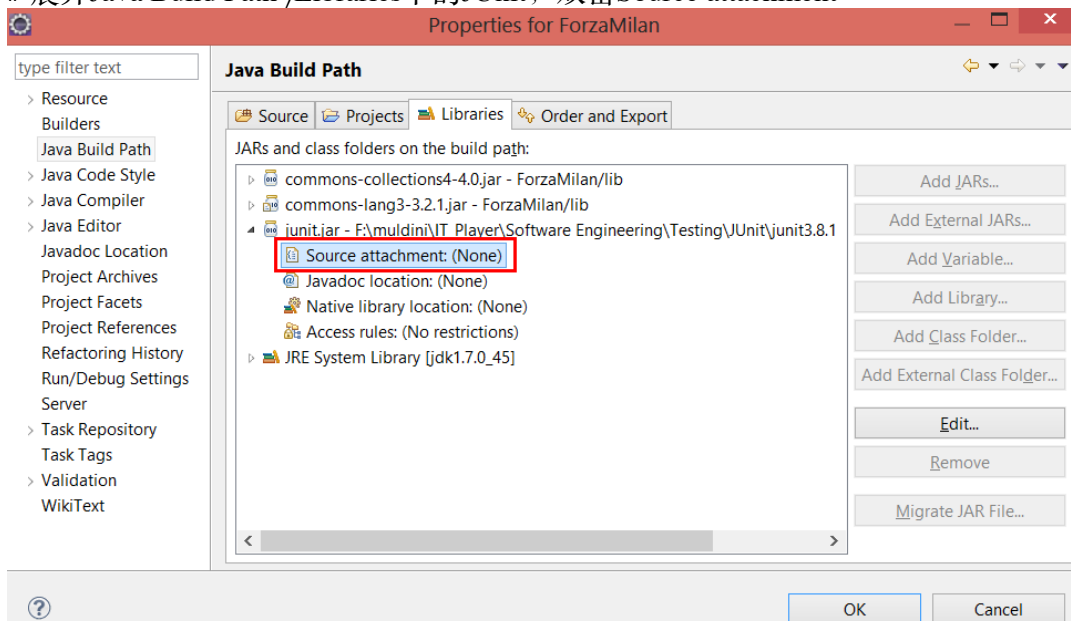
# 在点击Add External JARs的弹出窗中，选择junit.jar，确定即可将junit.jar配置到项目的类路径（classpath）中。如下图：



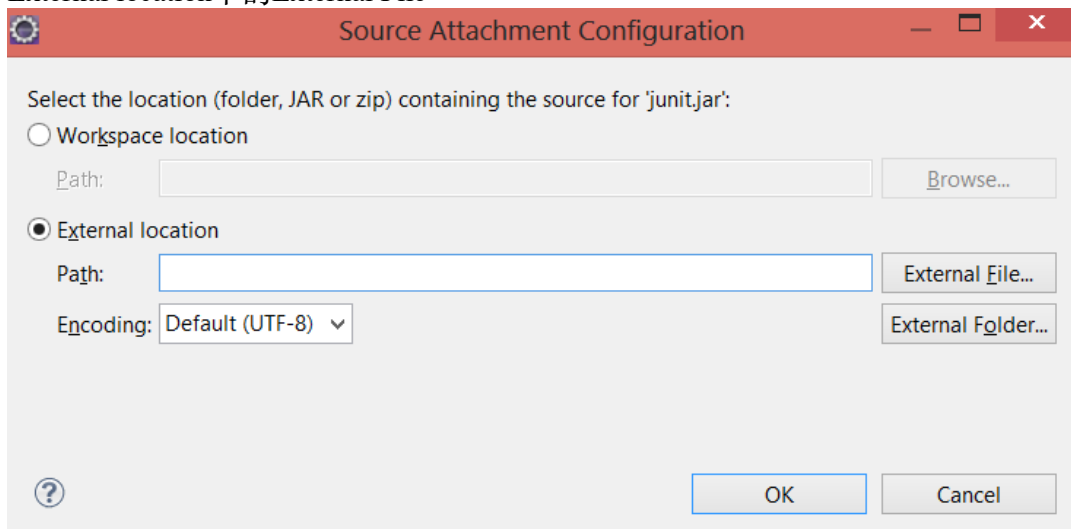


## @ 配置JUnit源码 (可选)

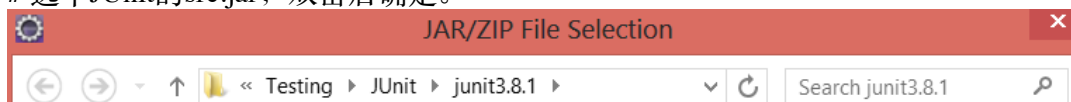
# 展开Java Build Path \Libraries下的JUnit， 双击Source attachment

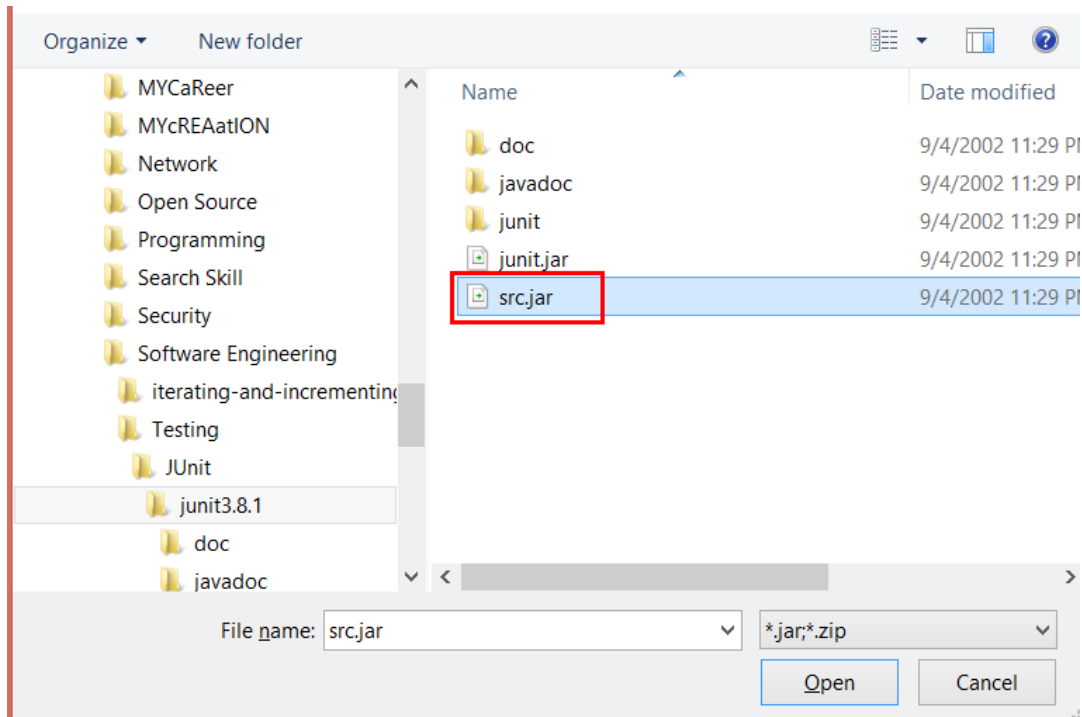


# 若JUnit包所在路径是当前workspace，则可点击Workspace location， 否则点击External location下的External File

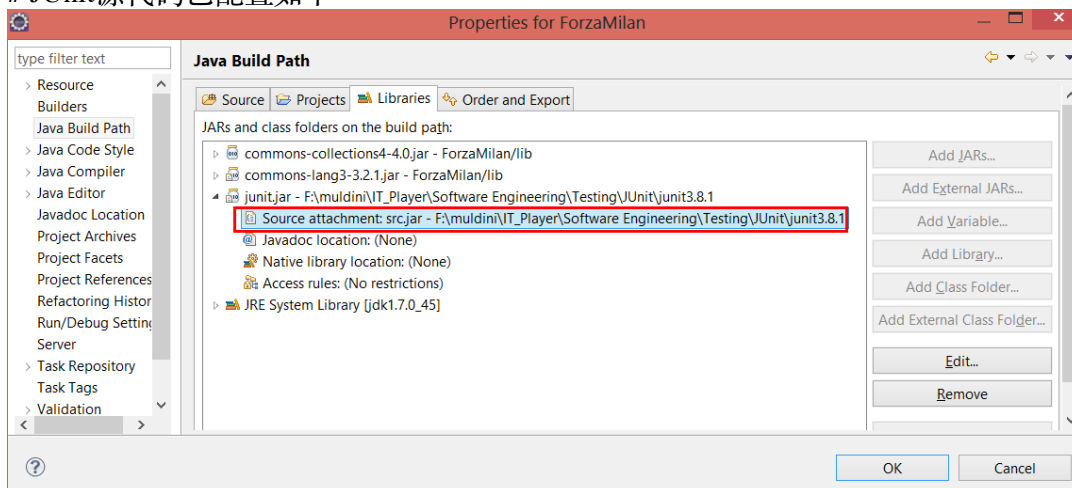


# 选中JUnit的src.jar， 双击后确定。



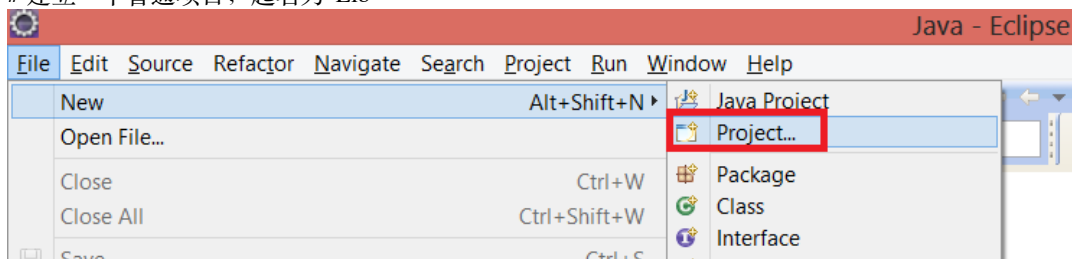


# JUnit源代码已配置如下

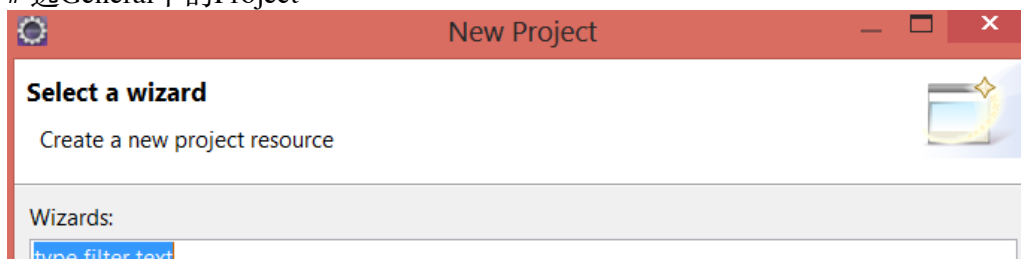


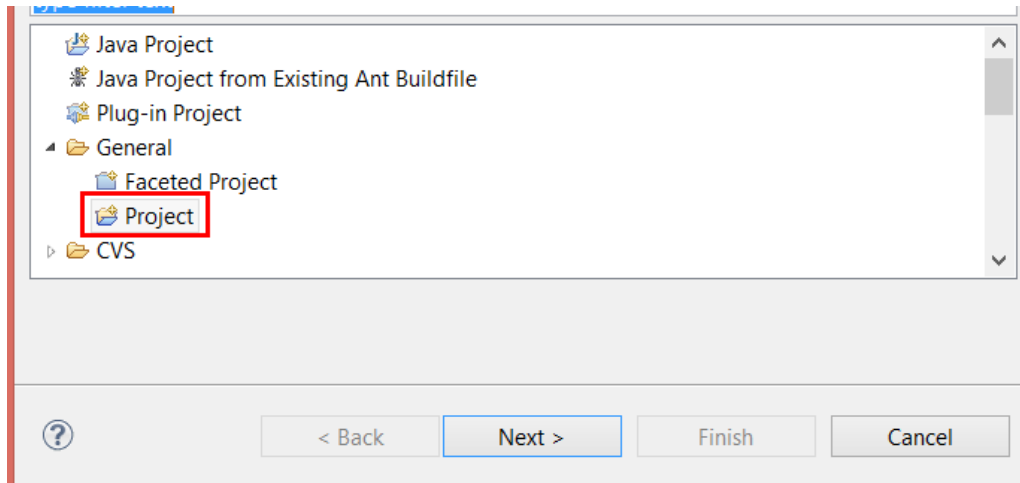
@ 另一种导入JUnit并配置其源码的方法（即从workspace中导入和配置）

# 建立一个普通项目，起名为“Lib”

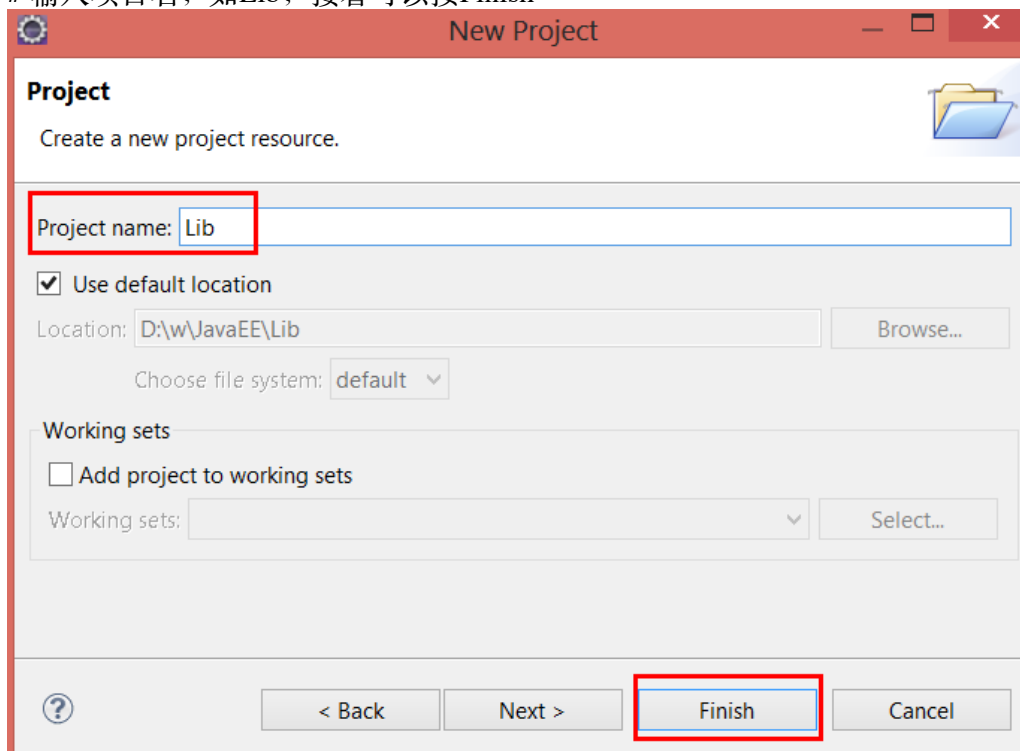


# 选General下的Project

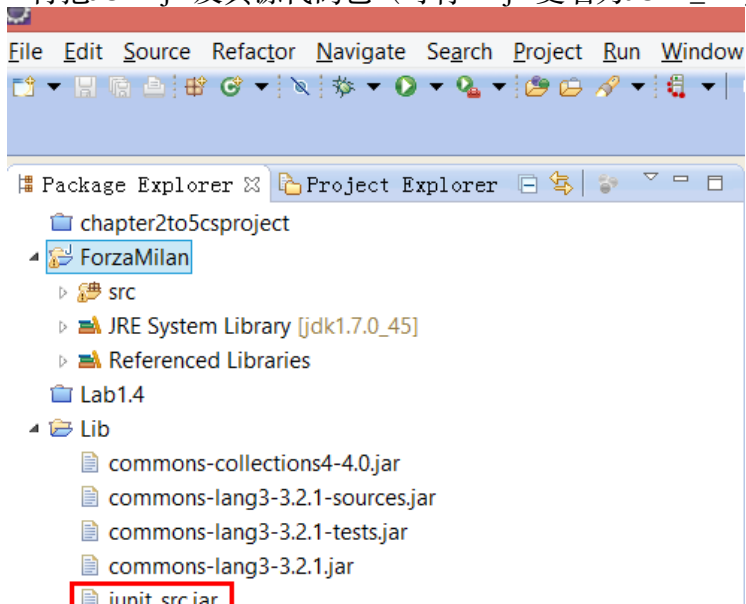


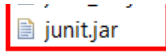


# 输入项目名，如Lib，接着可以按Finish

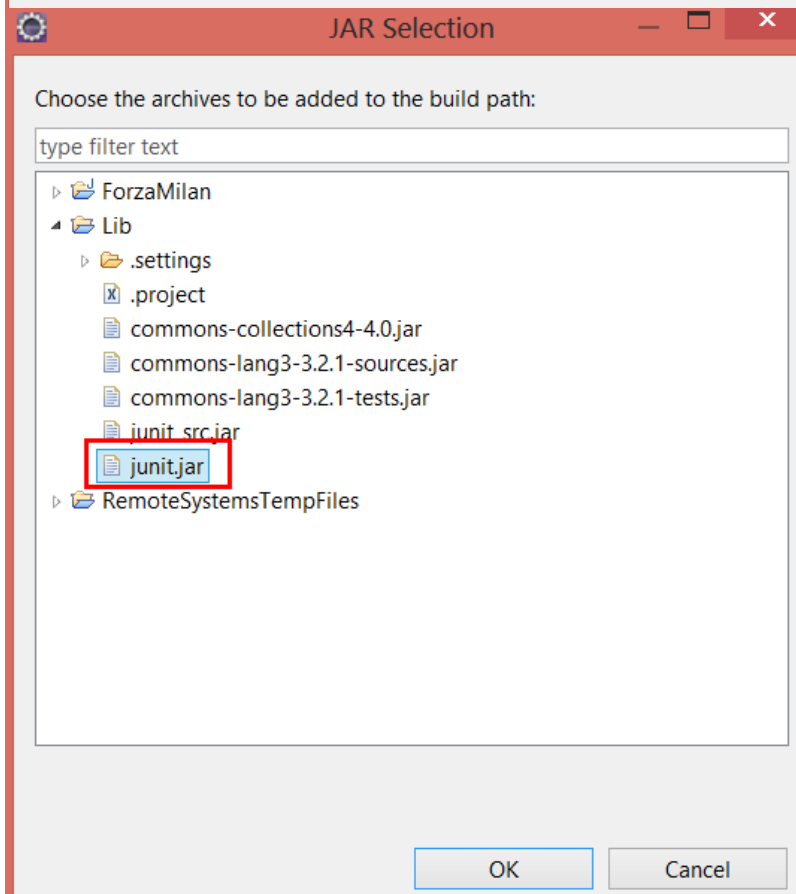
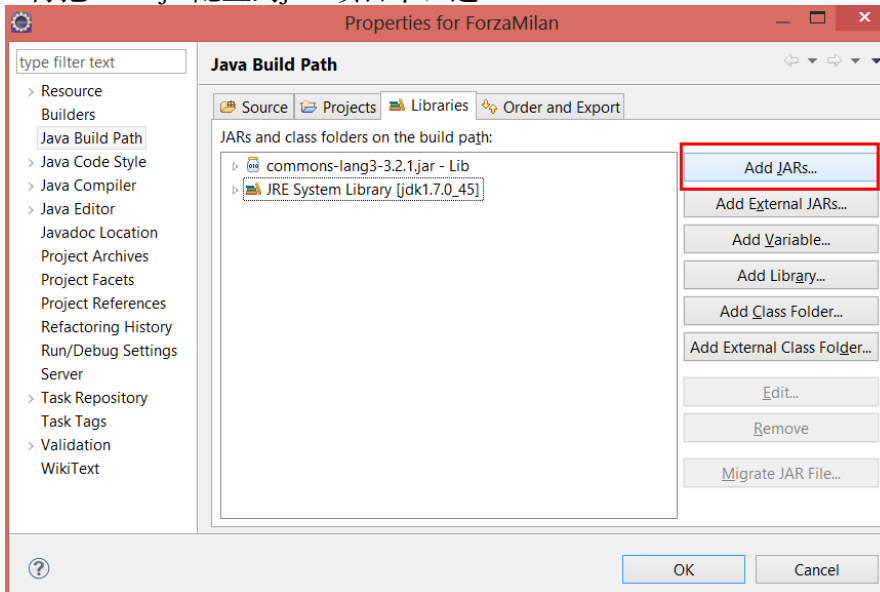


# 再把JUnit.jar及其源代码包（可将src.jar更名为JUnit\_src.jar）拷贝到Lib，如下：

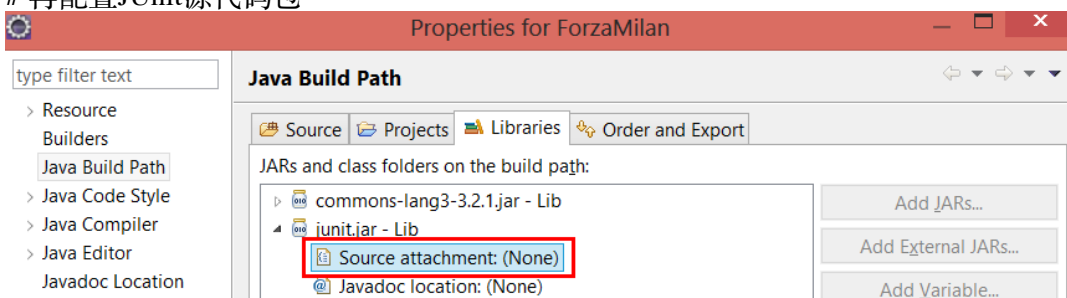


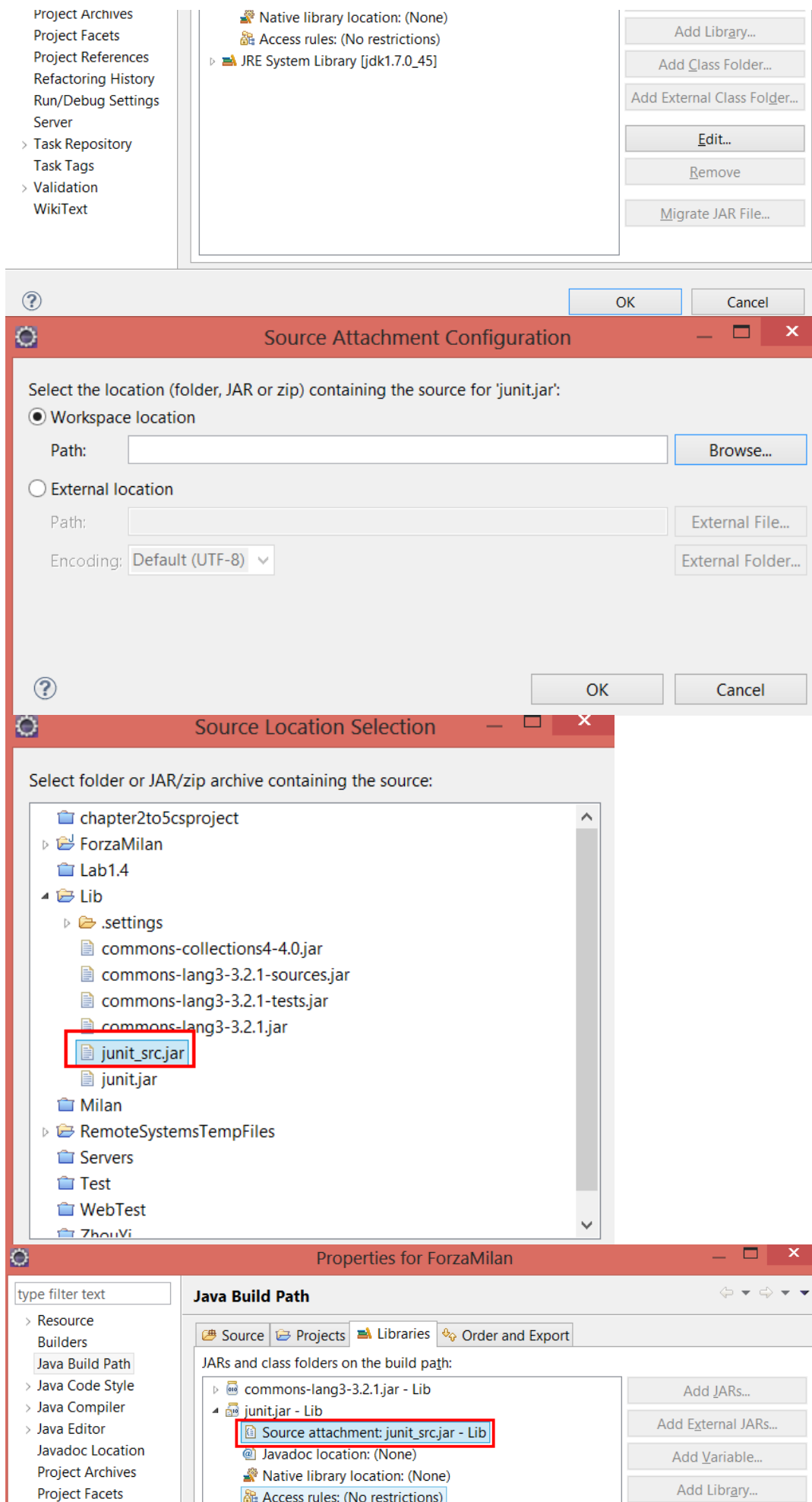


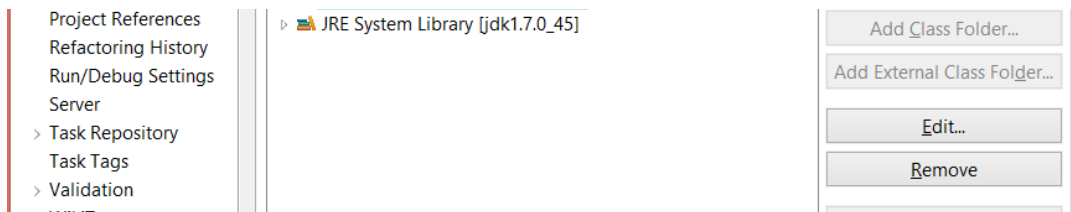
# 再把JUnit.jar配置到java项目中，选Add JARs



# 再配置JUnit源代码包

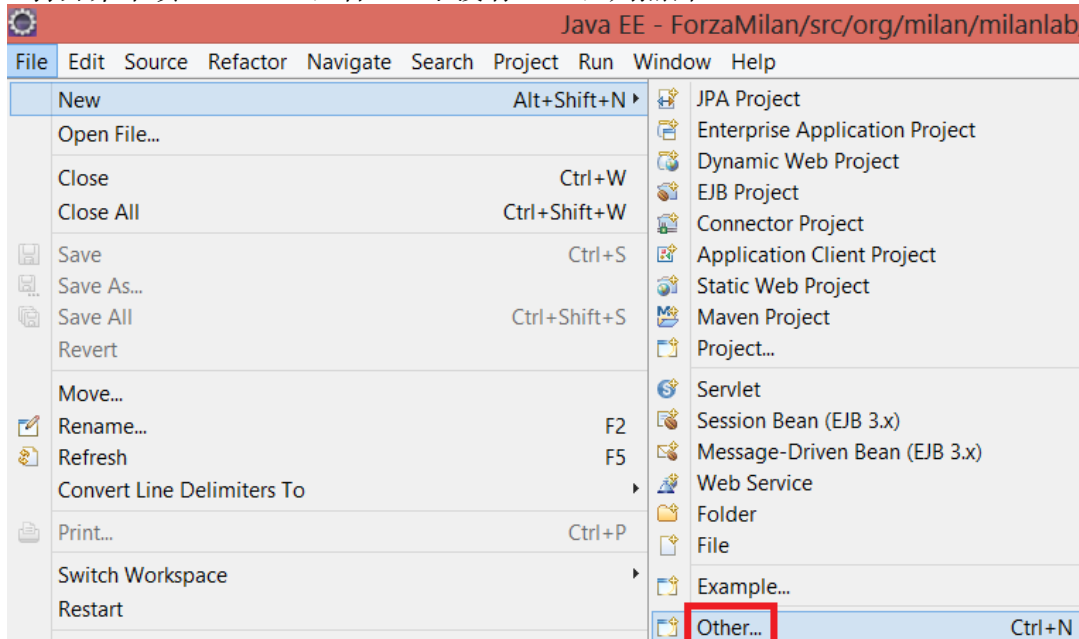




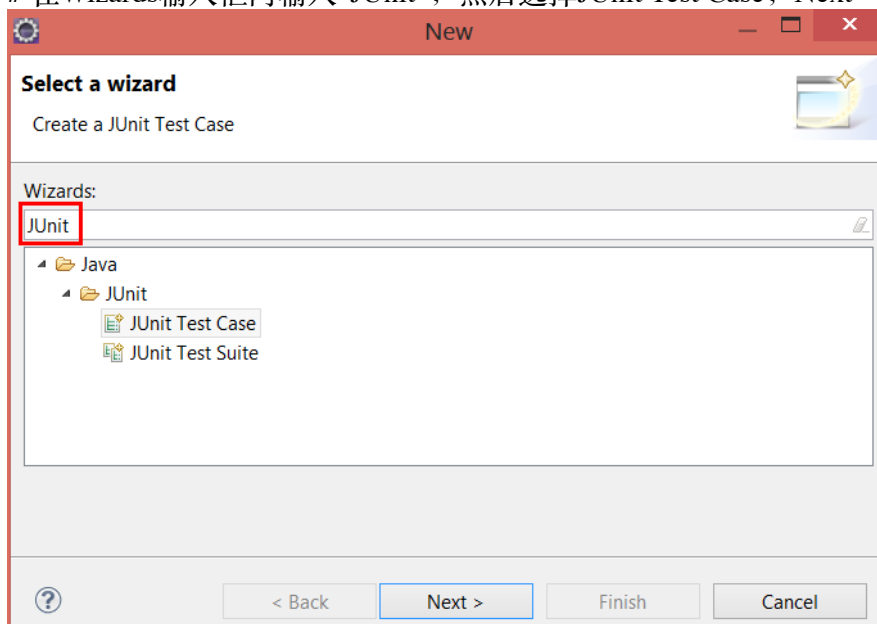


## 创建JUnit 测试类 (Test Case类)

# 打开菜单项File->New，若New下没有JUnit，则点击Other



# 在Wizards输入框内输入“JUnit”，然后选择JUnit Test Case，Next



# 确定Test Case属性，然后，若要指定待测类中的待测方法，点击Next

1>因为导入的JUnit包是3.8.1，所以应选择New JUnit 3 Test

2>通常是测试类 (Test Case) 和被测试类不在一个包 (package) 内，所以创建一个“test”包

3>通常测试类的命名-被测试类的名+“Test”



3> 选中测试类名称，即右面板测试类名称 Test

4> JUnit3需要测试类继承junit.framework.TestCase

5> 选择被测试类 class under test: 比如java.lang.String

**New JUnit Test Case**

Select the name of the new JUnit test case. You have the options to specify the class under test and on the next page, to select methods to be tested.

☒ New JUnit 3 test ☐ New JUnit 4 test

Source folder: ForzaMilan/src Browse...

Package: org.milan.milanlab.test Browse...

Name: StringTest

Superclass: junit.framework.TestCase Browse...

Which method stubs would you like to create?

☐ setUpBeforeClass() ☐ tearDownAfterClass()  
☐ setUp() ☐ tearDown()  
☐ constructor

Do you want to add comments? (Configure templates and default value [here](#))

☒ Generate comments

Class under test: java.lang.String Browse...

? < Back Next > Finish Cancel

# 选择待测的方法，接着Finish

**Test Methods**

Select methods for which test method stubs should be created.

Available methods:

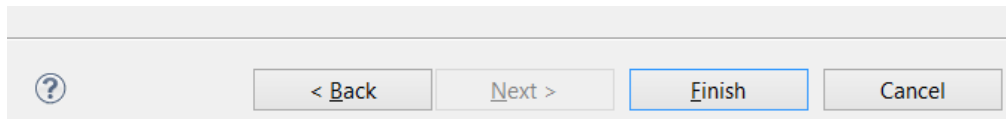
<input type="checkbox"/>	lastIndexOf(String)
<input type="checkbox"/>	lastIndexOf(String, int)
<input type="checkbox"/>	lastIndexOf(char[], int, int, char[], int, int, int)
<input checked="" type="checkbox"/>	substring(int)
<input type="checkbox"/>	substring(int, int)
<input type="checkbox"/>	subSequence(int, int)
<input type="checkbox"/>	concat(String)
<input type="checkbox"/>	replace(char, char)
<input type="checkbox"/>	matches(String)
<input type="checkbox"/>	contains(CharSequence)
<input type="checkbox"/>	replaceFirst(String, String)
<input type="checkbox"/>	replaceAll(String, String)
<input type="checkbox"/>	replace(CharSequence, CharSequence)
<input type="checkbox"/>	split(String, int)
<input type="checkbox"/>	split(String)

Select All Deselect All

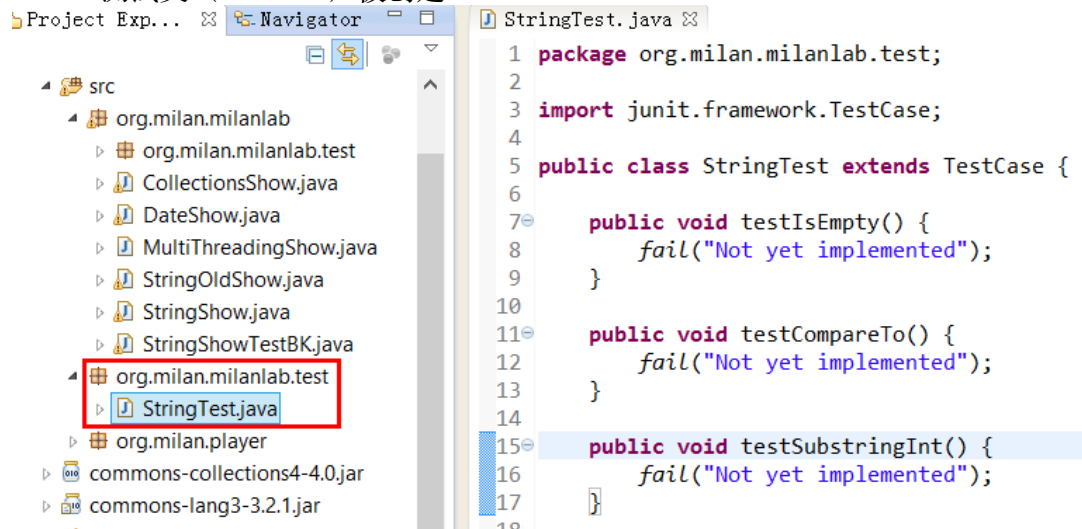
3 methods selected.

☐ Create final method stubs

☐ Create tasks for generated test methods



## # JUnit测试类 (TestCase) 被创建



## # 编写JUnit测试类

下例为JUnit3.x版

```
/*
```

```
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```

```
+AMENDMENT HISTORY AS BELOW++++++
```

```
VERSION:
```

```
AUTHOR:
```

```
DATE:
```

```
DESCRIPTION:
```

```
*/
```

```
package org.milan.milanlab.test;
```

```
import junit.framework.TestCase;
```

```
/**
```

```
 * Test java.lang.String
```

```
 *
```

```
 * @author Paolo Weng
```

```
 * @version 1.0
```

```
 * @date Mar 5, 2014
```

```
 */
```

```
public class StringTest extends TestCase {
```

```
    /**
```

```
     * Test method for {@link java.lang.String#isEmpty()}.
```

```
     */
```

```
    public void testIsEmpty() {
```

```
        String singer = "";
```

```
        boolean result = singer.isEmpty();
```

```
        assertTrue(result);
```

```
    }
```

```
    /**
```

```
     * Test method for {@link java.lang.String#compareTo(java.lang.String)}.
```

```
     */
```

```
    public void testCompareTo() {
```

```

String singer1 = "GEM";
String singer2 = "ZhangJie";
boolean result = singer1.compareTo(singer2) >= 0;
assertTrue("GEM should be prior to ZhangJie.", result);
}

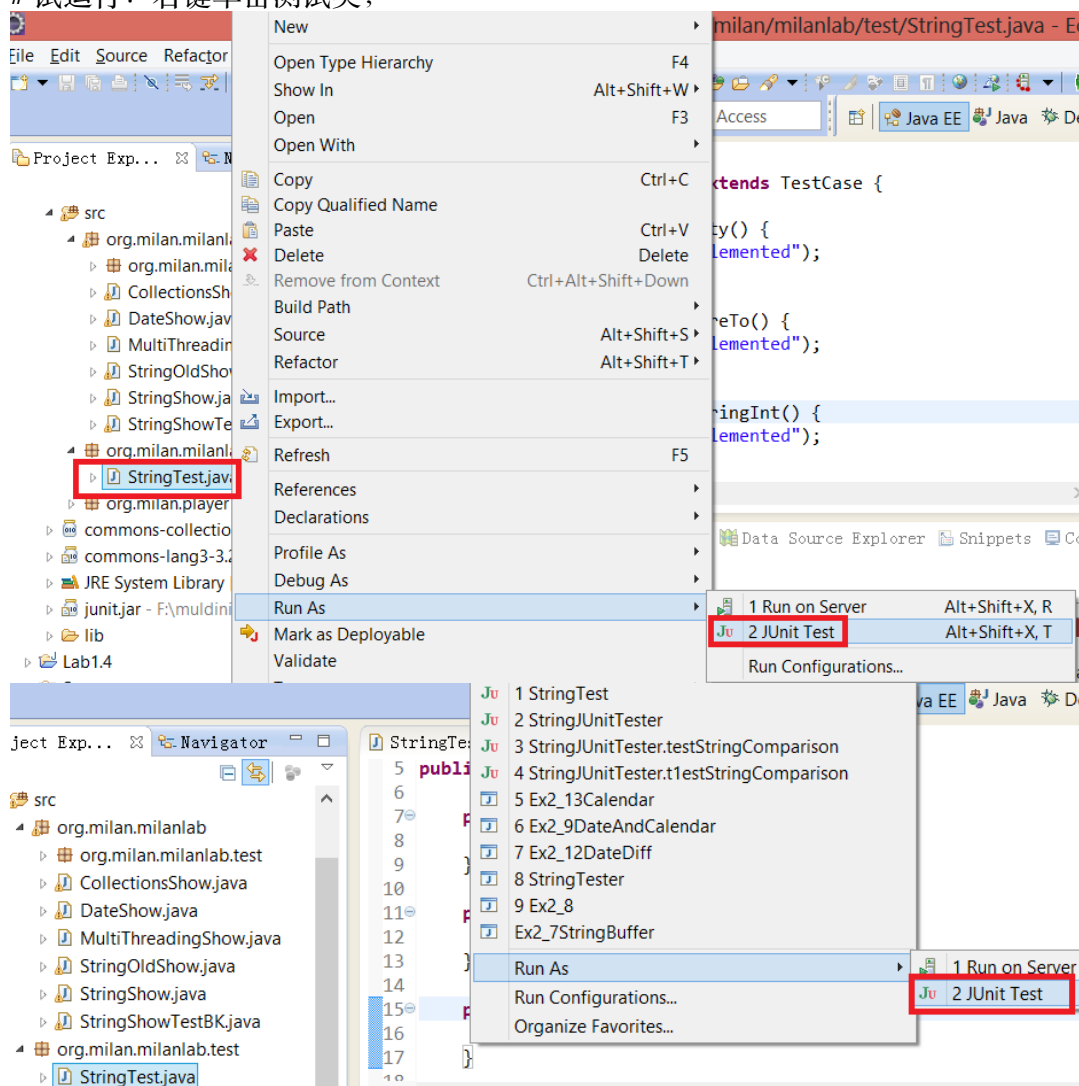
/**
 * Test method for {@link java.lang.String#substring(int)}.
 */
public void testSubstringInt() {
    String singer = "I am a singer";
    String result = singer.substring(7);
    assertEquals("singer", result);
}
}

```

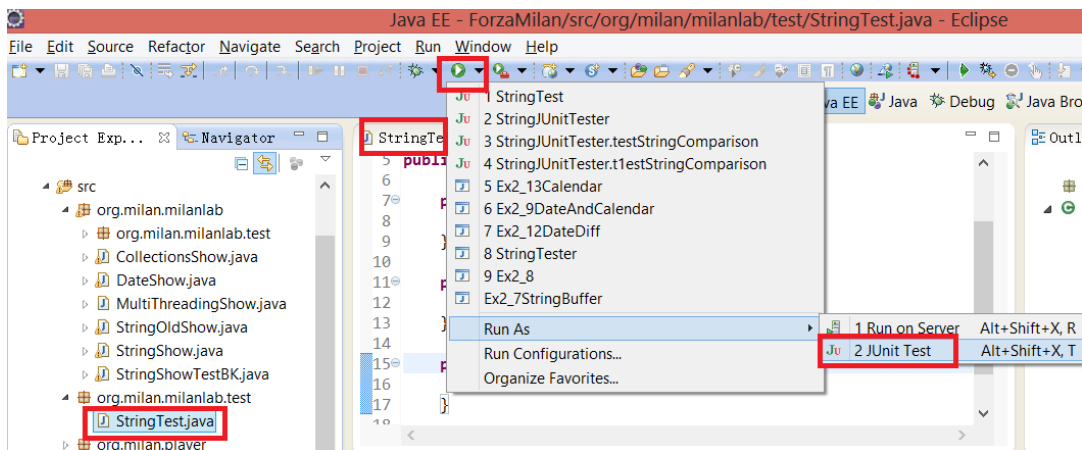
## 运行JUnit测试类

@ 测试整个测试类

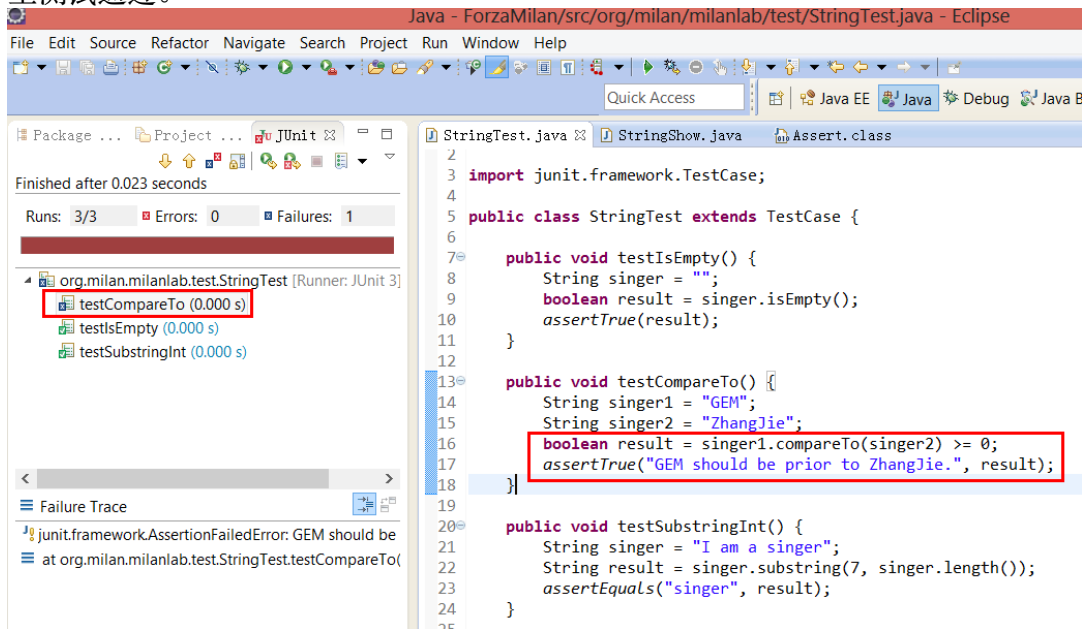
# 试运行：右键单击测试类，



或者，在当前打开文件是StringTest.java的状态下，点击如下图所示的Run快捷符号，选择Run As > JUnit Test

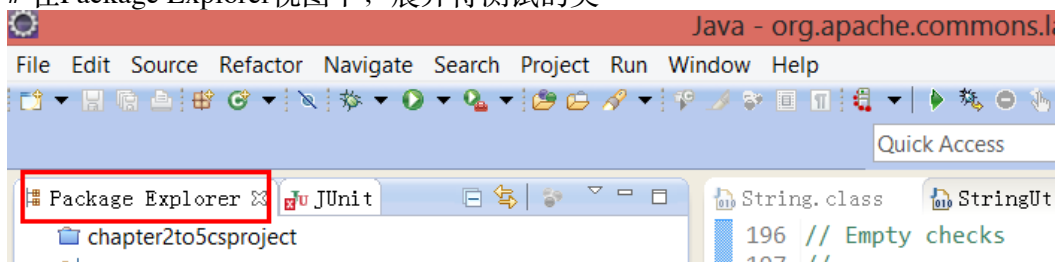


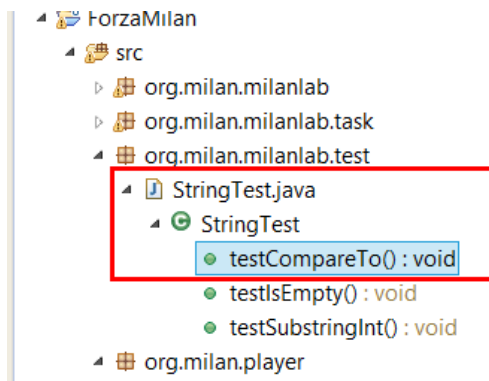
结果应该如下，JUnit视图会被自动打开，显示第2个测试方法失败，则修改它，直至测试通过。



## @ 测试JUnit测试类内的一个方法

# 在Package Explorer视图下，展开待测试的类



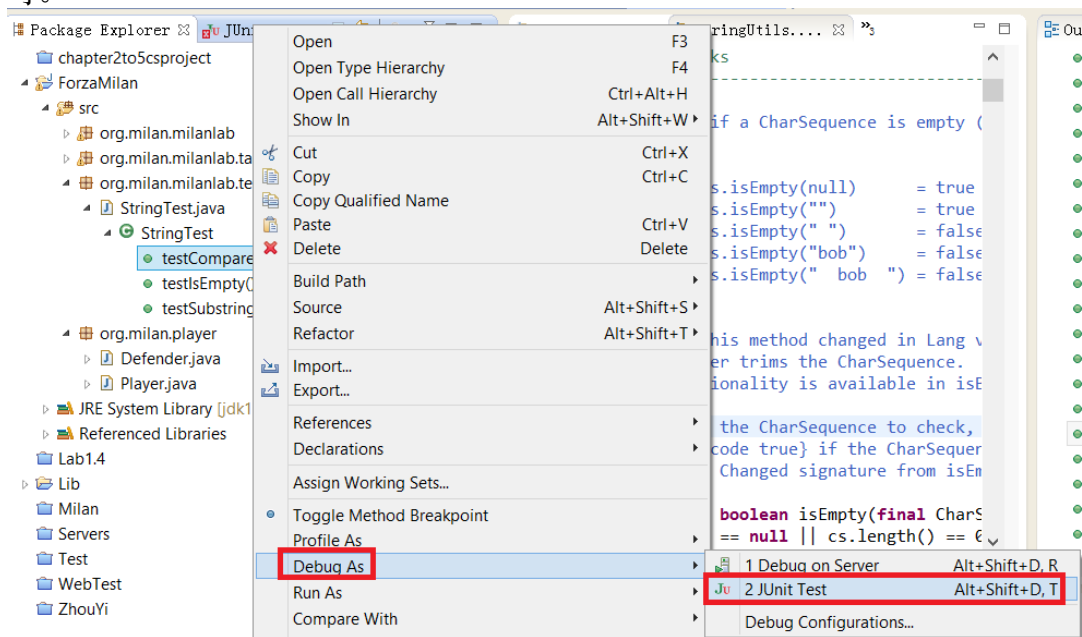


```

197 //
198 /**
199  * <p>Checks if a C
200  *
201  * <pre>
202  * StringUtils.isEm
203  * StringUtils.isEm
204  * StringUtils.isEm
205  * StringUtils.isEm
206  * StringUtils.isEm
207  * </pre>
208  *
209  * <p>NOTE: This me

```

# 鼠标在待测试类的待测试方法上单击右键，然后选择Debug as JUnit Test，即可。



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