**3.1 Testing and Selection Sort**

**JUnit Testing**

The org.junit library provides a number of helpful methods and useful capabilities for simplifying the writing of tests.

One of the popular answers for this post explains that the str1.compareTo(str2) method will return a negative number if str1 < str2, 0 if they are equal, and a positive number if str1 > str2.

Arrays.sort(arr)：这个方法会对整型数组 arr 进行原位排序，默认是升序排列。Arrays.sort(arr, Comparator.reverseOrder())：这个例子展示了如何使用 Comparator.reverseOrder() 来实现降序排序。

Collections.sort(list)：这个方法会对集合 list 进行排序，默认是升序排列。

We first add the import statement import org.junit.Test; to the top of our file. After doing this, we can replace all instances of @org.junit.Test with simply @Test.

We then add our second import statement import static org.junit.Assert.\*. After doing this, anywhere we can omit anywhere we had org.junit.Assert.. For example, we can replace org.junit.Assert.assertEquals(expected2, actual2); with simply assertEquals(expected2, actual2);

**Lab 3: Unit Testing with JUnit, Debugging**

What is JUnit?  
[JUnit](http://junit.org/) is a Unit Testing Framework for Java.

What is Unit Testing?  
Unit Testing is a great way to rigorously test each method of your code and ultimately ensure that you have a working project.

需要导入的库：

import static org.junit.Assert.\*;  
import org.junit.Test;

\*\* All tests must be non-static.