

Java JUnit for Unit Testing

RUN JUNIT TEST CLASSES

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Run Tests

1. Right Click on Test All; 2. Run Tests Button
-

Right click, you can choose:

1. Test All
2. Test Individual Test



Name Pattern Testing

@Test

```
public void TestGroupName() throws IOException
{
    Scanner input = new Scanner(new File("nameslong.txt"));
    while (input.hasNext()){
        String nn = input.nextLine();
        s1.setName(nn);
        assertTrue("Name "+nn+" does not match required format", s1.getName().matches("\\w*\\s*\\w*"));
    }
    input.close();
}
```

Input file: “nameslong.txt” from chapter 9 of Java Programming AP Edition: AP Computer Science Part 1.
Regular Expression: from chapter 10 of Java Programming AP Edition: AP Computer Science Part 2.



JUnit

Demo Program:

Student.java and StudentTest.java

Go BlueJ!!!



Interpret the Results

The test result windows shows a summary of test runs and can display failure details.

When tests have been executed, the **Test Result** window displays a summary of the testing outcomes. The top pane of that window shows a list of all executed test, tagged with an icon indicating their success or failure. A **green tick** mark indicates a successful test, a **grey cross** indicates a test failure and a **red cross** marks an error. The number of run tests, errors, and failures is also summarized in the middle section of the window.

A test has a failure (**grey cross**) if **one** of its assertions does not hold. For example, the test assertion may specify that a particular method result should not be null, but in this case it was.



Interpret the Results

The test result windows shows a summary of test runs and can display failure details.

A test has an error, if its execution resulted in any other kind of error, such as an **unexpected exception** being thrown.

For any unsuccessful test, details about its failure can be displayed by selecting the test in the list. The lower pane in the window then displays detail information about this failure or error.

The bar in the middle of the test window is the main summary of the test run: if it appears green, all is well - all tests have been successful. If it is red, there is a problem - at least one test has failed.