EXERCISE 7 –Strings

In this assignment, you will create a program that prompts user for a String and then calls a a number of methods to process the text entered by the user to later inform about the result through the screen:

Method 1 – parseString

1. If the input has less tan 5 characters, between 5 and 15 characters or more tan 15 characters.
2. If the input starts with 'a'

For instance, if the input is:
  Enter a string: "vereda"

The output should be:
  "- The input has between 5 and 15 characters and it does not begin with an 'a'"

Method 2 – reverseString

Prints the reverse of the String. The output shall look like

For instance, if the input is:
  Enter a string: "vereda"

The output should be:
  "- The reverse of the string 'vereda' is 'aderev'"

Method 3 – checkVowels

Counts the number of vowels (a, e, i, o, u, A, E, I, O, U) contained in the string, and prints the count.

For instance, if the input is:
  Enter a string: "lorem ipsum 45"

The output should be:
  "The input has 4 vowels"

- You could use toLowerCase() to convert the input String to lowercase to reduce the number of cases to consider.

Method 4 – checkDigits

Counts the number of digits (0-9) contained in the string, and prints the count.

For instance, if the input is:
  Enter a string: "lorem ipsum 45"

The output should be:
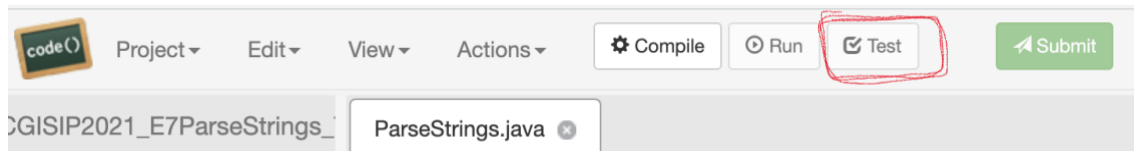 "The input has 2 digits"

- To check if a char c is a digit, you can use boolean expression (c >= '0' && c <= '9'); or use built-in boolean function Character.isDigit(c).

Submission Instructions

Once you have finished submit your solution using the Submit button of Codeboard

Testing Instructions

Once you think you have reached a solution, you could try if it works properly without submitting. To that end, click the *Test* button shown in the next figure..

As a result, your program will be run with a different number of test inputs, and the system will inform about the result of those executions, as the following figures illustrate.

First message states that 0 out of the 6 tests run have passed, i.e. the solution has been tried with different inputs and it has not worked properly. More specifically, if we go through the rest of the information on the screen dump we can see that errors have been raised when running the checkDigits() method (2 times), the checkVowels method (2 times) and the reverseString() method (2 times).

Finally, a new summary states again that 6 tests were run and all of them failed. All this given, you should check your code before submission to fix existing problems since, apparently, the solutions you have provided are not working properly.

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Number of passing tests: 0
Number of failing tests: 6


--- Details ---


JUnit version 4.11
.E.E.E.E.E.E
Time: 0.017
There were 6 failures:
1) testCheckDigits2(ParseTest)
java.lang.AssertionError: ERROR EN checkDigits
        at org.junit.Assert.fail(Assert.java:88)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at ParseTest.testCheckDigits2(ParseTest.java:104)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:497)
        at org.junit.runners.model.FrameworkMethod$1.runReflectiveCall(FrameworkMethod.java:47)
        at org.junit.internal.runners.model.ReflectiveCallable.run(ReflectiveCallable.java:12)
        at org.junit.runners.model.FrameworkMethod.invokeExplosively(FrameworkMethod.java:44)
        at org.junit.internal.runners.statements.InvokeMethod.evaluate(InvokeMethod.java:17)
        at org.junit.runner.JUnitCore.run(JUnitCore.java:117)
        at org.junit.runner.JUnitCore.runMain(JUnitCore.java:96)
        at org.junit.runner.JUnitCore.runMainAndExit(JUnitCore.java:47)
        at org.junit.runner.JUnitCore.main(JUnitCore.java:40)
 2) testCheckDigits(ParseTest)
java.lang.AssertionError: ERROR EN checkDigits()
        at org.junit.Assert.fail(Assert.java:88)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at ParseTest.testCheckDigits(ParseTest.java:81)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:497)
        at org.junit.runner.JUnitCore.main(JUnitCore.java:40)
 3) testCheckVowels(ParseTest)
java.lang.AssertionError: ERROR en checkVowels
        at org.junit.Assert.fail(Assert.java:88)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at ParseTest.testCheckVowels(ParseTest.java:128)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:497)
        at org.junit.runners.model.FrameworkMethod$1.runReflectiveCall(FrameworkMethod.java:47)
        at org.junit.internal.runners.model.ReflectiveCallable.run(ReflectiveCallable.java:12)
        at org.junit.runners.model.FrameworkMethod.invokeExplosively(FrameworkMethod.java:44)
        at org.junit.internal.runners.statements.InvokeMethod.evaluate(InvokeMethod.java:17)
        at org.junit.runners.ParentRunner.runLeaf(ParentRunner.java:271)

 4) testReverse2(ParseTest)
java.lang.AssertionError: ERROR EN reverseString()
        at org.junit.Assert.fail(Assert.java:88)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at ParseTest.testReverse2(ParseTest.java:56)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)

 5) testReverse(ParseTest)
java.lang.AssertionError: ERROR EN reverseString()
        at org.junit.Assert.fail(Assert.java:88)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at ParseTest.testReverse(ParseTest.java:34)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
        at java.lang.reflect.Method.invoke(Method.java:497)

 6) testCheckVowels2(ParseTest)
java.lang.AssertionError: ERROR en checkVowels
        at org.junit.Assert.fail(Assert.java:88)
        at org.junit.Assert.assertTrue(Assert.java:41)
        at ParseTest.testCheckVowels2(ParseTest.java:152)
        at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
        at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
        at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

        at org.junit.runner.JUnitCore.runMain(JUnitCore.java:96)
        at org.junit.runner.JUnitCore.runMainAndExit(JUnitCore.java:47)
        at org.junit.runner.JUnitCore.main(JUnitCore.java:40)

FAILURES!!!
Tests run: 6,  Failures: 6
```