

First Day Programming Exercise

In this exercise, you'll be completing the two methods below in a file called `starter.java`. You may use either the command line or the IDE of your choice, as well as the JavaDocs (<https://docs.oracle.com/javase/8/docs/api/>) to write these methods. After you complete a method, notify your instructor to confirm that the code is working properly. Submit your code to the First Day dropbox by the end of class.

Method 1

Write a method called `stringReverse` that takes a `String` object as an argument and returns a `String` object that is the reverse of the argument `String`. Call the `stringReverse` method from the main method. You should print out the original `String`, "This is a string", prior to calling the `stringReverse` method and then print out the reversed `String` that was returned by the method.

You may NOT use `StringBuilder` or `StringBuffer` (or any Java other class containing a reverse method) to solve this problem.

Method 2

Write a method called `patternFinder` that takes two `String` arguments; the first is a sequence of characters and the second is a pattern that you want to find the first occurrence of in the sequence. The main method contains a hardcoded `String` called `sequence`, consisting of a series of characters A, C, G, and T, along with a hardcoded `String` called `pattern`, which is set to "GTT". The purpose of the `patternFinder` method is to find the first location where the pattern "GTT" occurs in the sequence `String`. If the method finds the pattern in the sequence, it should return the **index** of the **starting point of the pattern**. For example, GTT first occurs at index 6 of the sequence `String`. If the method does not find the pattern in the sequence, return a -1. Print out the location where the pattern occurs in the sequence in the main method.