

# Lab 8

## User-Defined Methods

### Objectives of this Lab:

1. Introduce you to the basic use of methods.
2. Get experience with defining and implementing methods

### Test Review

Your TAs will begin today by going over the test you took last week. They will answer your questions.

### Eclipse

You will work with your TAs on this first Lab and submit to the area in GitHub:

<https://classroom.github.com/a/iAsPIppX>

### Getting Started

1. Create a new project in Eclipse called `ReverseCase`, and a new class called `ReverseCase`.
2. You should have a main method, for now, don't put any code in it.
3. The TA will show you how to create and test the method below.
4. Show the results of the test to your TA and submit to GitHub via the link above.

Write a method to reverse the case of a string

1. Add a new method called `revCase` with the following format:
  - It is a `public` method, so "anyone" can call it.
  - It is `static`, which means that it doesn't need an object to be called
  - It returns a `String` value to the calling function.
  - It takes one parameter of type `String`.
2. Precondition:
  - The `String` parameter is not equal to null.
3. Post condition:
  - The method returns the same `String`, but uppercase letters have been made lowercase and vice versa
  - Digits and special characters should not be changed.
4. You may want to use the `Character` wrapper class, which has methods such as `isUpperCase()`, `isLowerCase()`, `toUpperCase()`, and `toLowerCase()`.
5. You must use a `for` or `while` loop to complete this method.
6. Test `revCase` in your main method.

## Testing Methods

Anytime you finish writing a method, you should first test that it works before writing another. We can test `ReverseCase` in main by calling it with any value we choose, and comparing its return value with what we expect.