# Unit Testing Badge One

Every public class/method has to be tested. Without these tests you won’t know if the program will actually run the first time you use it or it may give you unexpected results. It is an easier method to find out what isn’t working right then just plugging it into a UI and trying to run it. Unit testing is to be used for checking classes to and fixing if it doesn’t work before checking them into a team. This of course would be assuming that the team was using test-driven development. I’ve been told before that unit testing shouldn’t be used for debugging, but it finds the problems before it is put into use so why wouldn’t you want to use it for some debugging at the beginning? It all comes out the same at the end, a good running reliable piece of software.

There are many different scenarios that should be tested when you start testing that method. You should be making sure it can pass valid data. You should make sure that an exception should be thrown if you have an exception set up to be thrown. You should write tests that looks for missing and null data and verifies that they are not being passed through, unless that is what you want. A test to make sure the database is connected to the program. This is a key thing, if the database isn’t connected and you need it to run, the program isn’t going to run.

An exception to every public class needing to be tested are those that are only used to pass information back and forth and really do nothing except for that. These are the classes that don’t set any type of rules or check for anything. At least that is what I seen from the project we did in class. [ExceptionFromCodeCoverage] is a nice line of code that will help in this. It simply means exclude from the code coverage that should be checked to make sure that the code being tested is being tested thoroughly. There are numbers saying that it should be over 70% or 80%, but really I believe that as long as the program runs fine and not giving any unexpected results that the percentage shouldn’t matter too much.