

## **Part 4 – FizzBuzz Automated Testing Solution**

### Technology used and repository location

I chose to implement the tests using C++ and Visual Studio 2019 Professional. The files can be found here: <https://github.com/InfoWranglerDrew/IS24Part4>

The FizzBuzz folder holds the FizzBuzz code, the UnitTest folder holds the test code.

### Considerations

I spent some time considering how to test the output of functions that write to standard output, and waffled between changing the Windows standard output handles and intercepting the output. Ultimately, I decided against that because it's a Windows only solution. Instead, I modified the function headers to accept an output stream, and modified the code to use that stream. The functions still default to cout if a stream isn't specified. No other changes were made to the FizzBuzz code.

### Test output

The test output log, test\_output\_log.txt is in the repository as well. It's interesting to note that one of the four FizzBuzz functions I tested fails. Upon checking the code, I see that the loop used starts at zero instead of one, violating the FizzBuzz requirements.

### How to use the solution

To use the code, open the Visual Studio solution "FizzBuzz.sln" in the FizzBuzz folder.

Choose Test->Run All Tests from the main menu. The test window will open, tests will be found and run. Output from the test can be found in the Output window by choosing Tests from the Show Output From drop-down.