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Lab Section: 1105

Project 7

**Program Purpose**

The purpose of this program is to practice the implementation of a class using dynamic memory allocation to a test driver that outputs results to the terminal. I was provided with the source code file proj7.cpp and had to write my own header and source file to go with the project 7 test driver.

**Program Design**

I wrote both of the files to have comments helping another reader to see which functions go together and where they are used. I found in some cases it was preferable to use square bracket indexing over pointers, and in others it was reversed. I originally started writing the MyString.cpp file on Linux, but I was getting a strange bug where a part of the previous string was sticking to the end of a single sentence. After I switched over to finish writing the rest of the program on MacOS, the bug disappeared. I also think it had something to do with how I was using delete [], because I don’t think I was doing it correctly and was getting undefined program behavior.

**Trouble with the Project**

The most trouble I had with the project was getting used to using try and catch. Writing buffer allocate and buffer deallocate was giving me some trouble as well. At first it would not compile because I was trying to return types that were not define in the function. Then when I had finished with writing the buffer functions, I realized I had written them wrong after reading the project pdf again. The error output actually came onto the screen with a segmentation fault for the operator + function. I had tried breaking the program before to see what would cause it to print the std::cerr to the screen with no luck. It turns out you cannot declare size\_t i=0 twice in different for loops in the same function. Once I removed it from both loops and declared it within the function, I no longer had a segmentation fault and the program worked fine. To compile just type make and the output file is named “proj7”.