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Project 5: String Class

For this project, we had to implement the basic functions of a string class. While doing so, we get to learn the gist of class and the fundamentals of object-oriented programming. I found that the classes are extremely useful in object-oriented programming. In addition, I learn that that private data members are inaccessible outside of the class. Thus, I must implement member functions in order to actually access the variables.

For this project, I was having a bit of trouble of actually understanding the project specification as it is very ambiguous and not very detailed as the past few projects. I learn that freeing member space is important part of dynamic member as we must manually use the keyword “delete” in order to free up these memory spaces. Additionally, I learn that having a detailed test driver is very useful when you’re trying to test your member functions to see if they are working. We must test all conditions for the member functions. If we don’t test all the possible conditions, then it is unknown if the program is actually working since it only work under certain conditions. For this project, I choose to test all member functions for both the object and the array of objects to ensure that my class implementation is correct.

I decided to look at my member functions to see where I wrote my conditional statements inside of the various member functions. Based on that, I would then write multiple test conditions in my main test driver based on the conditional statements I wrote in my class. In addition, I specified what I am testing in order to ensure that the user understanding what I am testing in my test driver. Otherwise, if I did not do so, the entire test driver would be useless and confusing to understand for the grader. Finally, I would run Valgrind to ensure that all the dynamic memory that I have used is freed.