

**Purpose:** The purpose of this program is to create a basic string class that has the ability to modify strings, and also the modify String type arrays. There are 7 different functions that are present in the string class. These functions add the ability to initialize a string to the correct length to the buffer, and store the word length, a deallocation function that deletes this, a copy function that takes a string and copies it into the designated destination, a function to return the word length, the concatenation function that puts two strings together, a compare function to see which string is precedent in the alphabet, and finally a print function that prints the buffer.

**Design:** My overall design process on this project was to first, create every single function to work properly with pointers, and then implement these functions in a test driver (main.cpp) to test these. We've created several string modification functions in the past, and so moving into this project it was just a matter of recreating the functions to work with the pointers that go into the class.

**Problems:** The problems that I encountered during this project were mainly with getting everything in my test driver to work out with the String class items such as making the arrays, and the pointers to pass into the functions. After working out technical items, and getting questions answered, I was able to solve these issues, and the arrays worked successfully with my functions that I created.

**Changes:** If I had more time on this project, I would have liked to maybe test for more instances to see what would have broken my code, so I could try and prevent this from happening, however, I tested a numerous amount of combinations and feel like the code works as intended. Another change I would have possibly looked into is the effectiveness of my functions, and maybe tried to lessen the lines of code in my program.