Proj1.cpp

**Purpose:**

The purpose of this project was to be familiar with file I/O and array arithmetic. The goal was to read from a file then print the contents out on the screen for the user to read as well as sort the data and place the data into a new named text file. There were no uses of string libraries which made it harder for me to understand how to do the arithmetic of the arrays and sort, swap, compare, etc.

**Design:**

The design of the project seemed simple, but it was fairly difficult once it got to the point of scanning though arrays. I did have to reach out for help on the internet and one of my friends from class as well. I first started by wanting to be able to read the contents of Names.txt and storing them into a 2D array then be able to manipulate the array for the contents to be displayed. Showing the positions of the names was a challenge for me because I did not know how to include the indexed number before the name inside of the terminal. I defined my functions at the top and then have my “main” function then I include all my functions at the bottom. This was to make everything easier to read. I also did not include the “using namespace std” because I read that it was bad practice, so I did not want to get in the habit of using it. There were a few other functions created in order to facilitate this project. For example a swap function, log into file function, and more.

**Challenges:**

As I mentioned above, the array arithmetic and algorithms were the hardest part of this project. I could not remember how to iterate thought an array and compare every element of it. It was a pain not being able to use the string library. I understand that it is useful to understand the algorithm especially for job interviews but there isn’t a point to make your own functions when the libraries already exist. At first, I was struggling to get all the contents in Names.txt into a 2D array. I the methods I was using were very frustrating, so I had to reach out to a friend in class for help in order to understand how to do it. The hardest function with this project was the swap names function that I created.

**Changes:**

I don’t really have any other changes in mind for this project. It was a good first project and it was a challenge for me to overcome.