Dylan Dunagan

CS-300 DSA: Analysis and Design

18 May 2025

Reflection and Pseudocode

The purpose of the code is to take information from the given excel documents, input them into a vector, and sort those items. At the end of the code, a method of keeping time is added in to allow for a visual representation of how long it took for the program to perform the sorting functions. Although the selectionSort function loads the file quicker, the quickSort function sorts the bids from the file quicker. I was fortunate that the instructive directions placed in the “fix me” sections were clear enough that I was able to figure out how the code was supposed to read. I had a little bit of trouble with getting the compiler to allow for “Pivot” to be a string type while it was being assigned to “middlePoint” which is an integer type. But after messing with the incrementing and decrementing loops, I got the code to work. The pseudocode for the vectorSorting.cpp is:

Main Function()

Read csvPath

Loop while choice is not “9”

Output menu:

1: Load bids

2: Display all bids

3: Selection sort on bids

4: Quick sort on bids

9: Exit program

User enters their choice

If “1” is chosen:

Start the clock

Output the number of bids read from the CSV file

Stop the clock

Output the amount of time taken to rean the file

If “2” is chosen:

Loop over the bids vector

Output the bids in the vector

If “3” is chosen:

Start the clock

Call selectionSort function

Output the amount of bids sorted

Stop the clock

Output the amount of time taken to sort the bids

If “4” is chosen:

Start the clock

Call the quickSort function

Output the amount for bids sorted

Stop the clock

Output the amount of time take to sort the bids

If “9” is chosen:

End loop

Output “Good bye.”

End program