Willem Grier

CSE 301 Project 2 Milestone

March 8, 2021

Problems Encountered During Development

1. Memory Deallocation:

a. My heap memory deallocation was not working. I found that I was accidentally deleting the memory twice. The second deletion caused an error of course, which I subsequently removed.

2. Version Control System

a. I had difficulty linking CLion to GitHub. This was perplexing because I had no trouble for Project 1. I decided to delete GitHub from my CLion program and reinstall it. This fixed the problem.

3. Float Values Converting to Scientific Notation

a. On certain occasions, executing my code would not work, even if I hadn't changed anything. I discovered that some zero float values from the input were being entered as scientific notation or being converted into scientific notation as I passed variables between functions. I created a formatting tool to fix this problem in the places I was able to identify the issue.

4. Heap Indices for find max price apps

a. Using theory and teachings from class, I did my pseudocode with a heap indexed from [1..n]. I knew I had to correct this in my code, but forgot to fix one line, which was the only line that did not match the correct indices of [0..n-1]. However, only 1 query on 1 input document caused me to find this mistake, as this error of indices on this one line only affected the result when the very end of the array was reached. It was a lucky catch.

Known Bugs & Unmet Requirements

- Bugs

- o Memory deallocation may be redundant before exiting the program.
- o Sometimes the max price apps query doesn't work because '0' price values get reassigned as small scientific notation values.

- Unmet Requirements

- Output format may be incorrect; Instructions were not explicit.
- o The "report" output is incomplete.

Significant Interactions

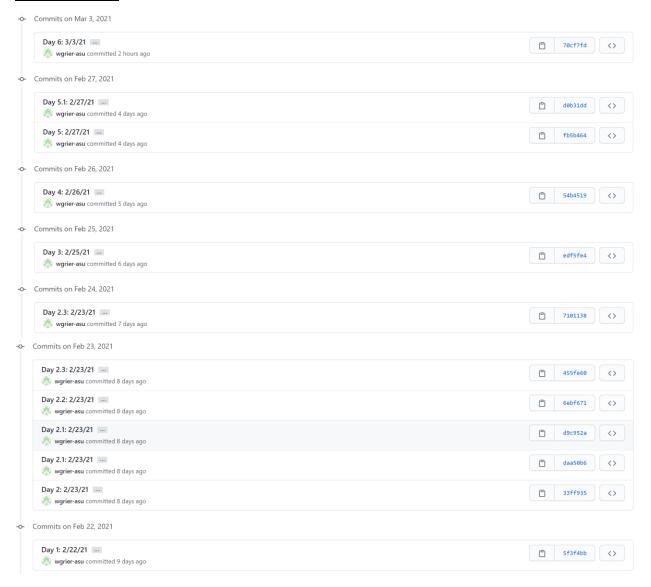
I did not interact with anyone when creating my code.

Citations

I primarily referenced code from my own previous projects in C/C++. However, I also used several webpages on GeeksforGeeks.org to learn how to measure execution time.

I referenced Cormen et al.'s "Introduction to Algorithms" to learn how to use binary search trees.

Version Control



GitHub Project

CSE310 - Project 2 Q Filter cards Updated 2 days ago + ... + ... + … 1 To do 2 In progress 6 Done ■ Verify hash function is correct □ Check formatting of outputs. Added by wgrier-asu Added by wgrier-asu • Non-indented • Include Quotation Marks ☐ Test all input files Added by wgrier-asu Added by wgrier-asu ... Fix Hash Function • switch 11 with table size Added by wgrier-asu • • • ☐ Test General.asu.edu Added by wgrier-asu ■ Process Queries Added by wgrier-asu ■ Modularize the source code • Link header files and source code • Edit makefile Added by wgrier-asu ■ Implement Reporting