

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**

- Memory deallocation may be redundant before exiting the program.
- 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.
- 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


Commits on Mar 3, 2021

Day 6: 3/3/21 ...

 wgrier-asu committed 2 hours ago





70cf7fd




Commits on Feb 27, 2021

Day 5.1: 2/27/21 ...


 wgrier-asu committed 4 days ago




d0b31dd




Day 5: 2/27/21 ...

 wgrier-asu committed 4 days ago





fb5b464




Commits on Feb 26, 2021

Day 4: 2/26/21 ...

 wgrier-asu committed 5 days ago





54b4519




Commits on Feb 25, 2021

Day 3: 2/25/21 ...

 wgrier-asu committed 6 days ago





edf5fe4




Commits on Feb 24, 2021

Day 2.3: 2/23/21 ...

 wgrier-asu committed 7 days ago





7101138




Commits on Feb 23, 2021

Day 2.3: 2/23/21 ...


 wgrier-asu committed 8 days ago




455fe60




Day 2.2: 2/23/21 ...


 wgrier-asu committed 8 days ago




6ebf671




Day 2.1: 2/23/21 ...


 wgrier-asu committed 8 days ago




d9c952a




Day 2.1: 2/23/21 ...


 wgrier-asu committed 8 days ago




daa50b6




Day 2: 2/23/21 ...

 wgrier-asu committed 8 days ago





33ff935




Commits on Feb 22, 2021

Day 1: 2/22/21 ...

 wgrier-asu committed 9 days ago



5f3f4bb



GitHub Project

CSE310 - Project 2
Updated 2 days ago

1 To do + ...

Verify hash function is correct ...

Added by wgrier-asu

2 In progress + ...

Check formatting of outputs. ...

Added by wgrier-asu

Test all input files ...

Added by wgrier-asu

6 Done + ...

Echo Query/Update ...

- Non-indented
- Include Quotation Marks

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 ...