

1. Problems encountered during implementation:

While not without problems, the implementation of this program went relatively smoothly. Even still, a comprehensive list of the problems encountered are as follows:

- a. Incorrect implementation of heap algorithms lead to memory-freeing problems.
  - b. Typos in the makefile made running and testing code difficult until resolved
  - c. Logic errors in code led to file-reading errors, making the code appear to function but perform incorrect tasks
  - d. Improper implementations led to floating point errors and subsequent crashes
2. Incomplete implementation and/or known bugs
    - a. N/A - code appears to run as intended.
  3. Significant interactions
    - a. Discussed makefile issues with Bohan, ended in the resolution of errors as my typo was found (used .c instead of .cc)
  4. Citations of references used
    - a. Enums: <https://www.youtube.com/watch?v=x55jfOd5PEE>
    - b. Switch Statements: [https://www.w3schools.com/cpp/cpp\\_switch.asp](https://www.w3schools.com/cpp/cpp_switch.asp)
    - c. Using enums with a switch case:  
<https://stackoverflow.com/questions/3019153/how-do-i-use-an-enum-value-in-a-switch-statement-in-c#:~:text=You%20can%20use%20an%20enumerated,case%20MEDIUM%3A%20...%20%7D>
    - d. Makefiles: 95% of what you need to know:  
[https://www.youtube.com/watch?v=DtGrdB8wQ\\_8](https://www.youtube.com/watch?v=DtGrdB8wQ_8)
      - i. Note on this link: this video was very helpful and gave me the knowledge of makefiles that I needed to make a comprehensive makefile capable of handling a modular project with ease. Future students that might not have makefile knowledge or experience could make great use of this resource.

- Screen shot of Github (or equivalent) repository

