RMIT University Vietnam - Saigon South Campus

EEET2482 - Software Engineering Design

Assignment I Group Report

Group 8

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By submitting all the materials for this assessment, we declare that we have read, understood, and agreed to the content and expectations of the assessment's declaration.

Table of Contents

1. Team

Our team members are:

- Vu Viet Minh (leader) - s3790708
- Nguyen Chu Son - s3742891
- Quach Gia Vi - s3757317

Consisting of 2 Information Technology students and a Software Engineering student who is our leader, we came together to form as group 8 for this EEET2482 - Software Engineering Design course with the goal of acing all the assignments and tests thrown at us as well as be able to learn and gain valuable knowledge and experience working together.

2. Assignment

2.1. Completion

We are proud to announce that, within a short period of time, we have managed to complete all of the required tasks within the assignment's declarations for the coding component. The final source code contains a little over 1000 lines of code, with roughly 80% of the code being functions for the statistics calculations.

2.2. Testings

2.2.1. Methodologies

Since the program will be relatively small, we decided to go ahead with testing each function one by one while writing the code and when the function is finished, though not optimal, it is sufficient for this sort of program.

To elaborate, functions were tested by having cout placed at certain lines within the functions to output variables into the console in order for us to check whether the value in the calculation was correct or not. In the case of program argument testing, we utilized both the Command Arguments in Microsoft Visual Studio Code 2017's project properties Debugging and Windows Command Prompt to test, but the latter option was preferred as it was more efficient.

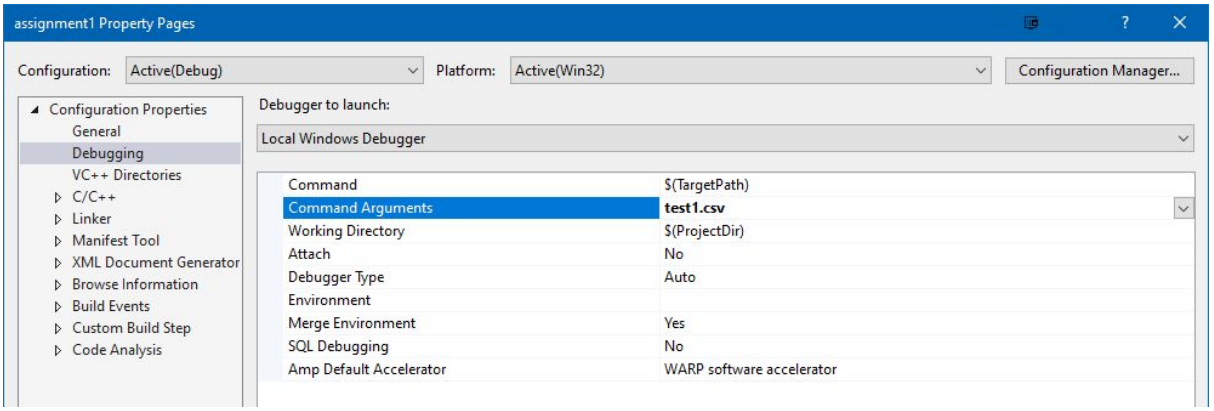
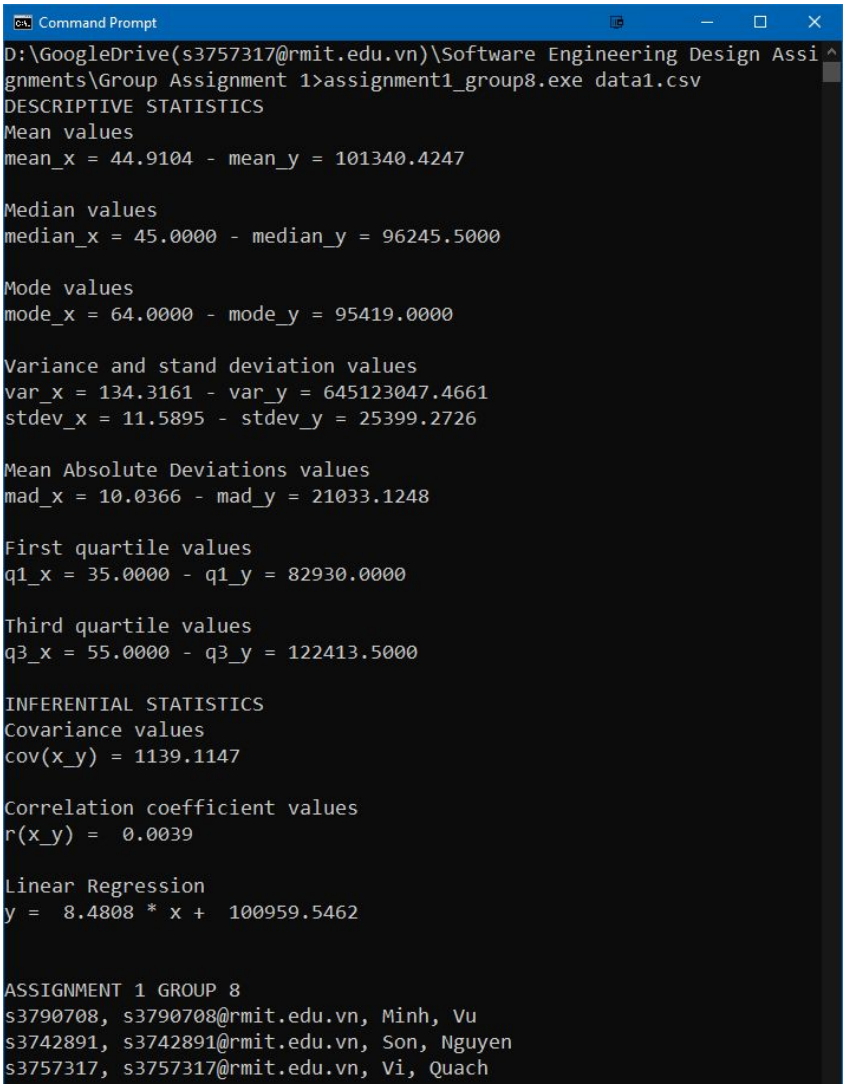


Image of Command Arguments in Microsoft Visual Studio 2017's project properties Debugging section

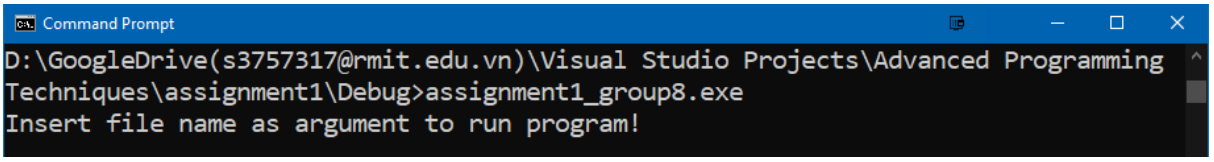
2.2.2. Program outputs

Below will be a series of images of the program being run using Windows Command Prompt (cmd.exe) with a variety of scenarios:

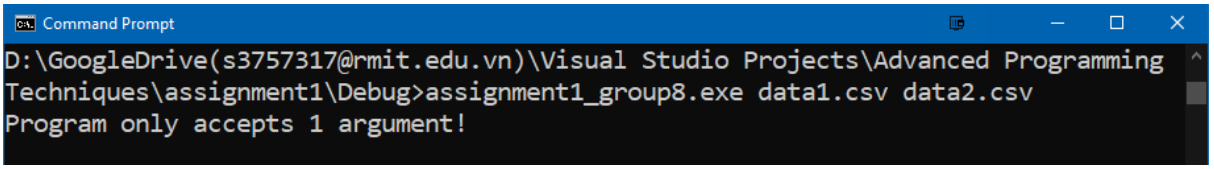
- Running the program with "data1.csv" as an argument (data1.csv is the file included in the assessment for testing the program):



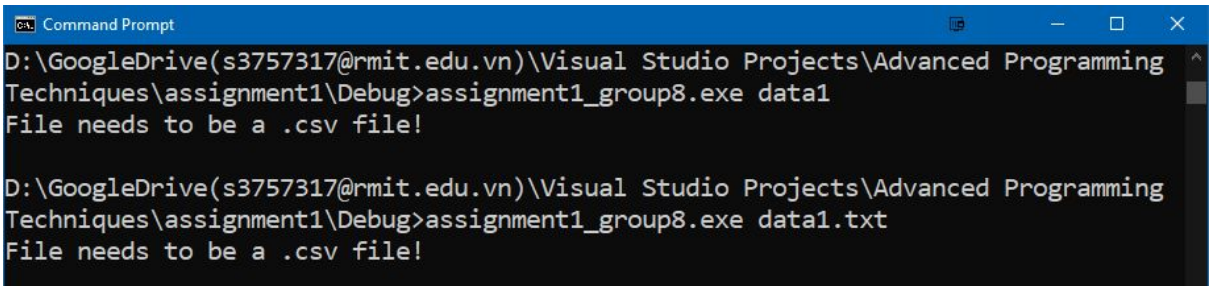
- Running the program without any arguments:



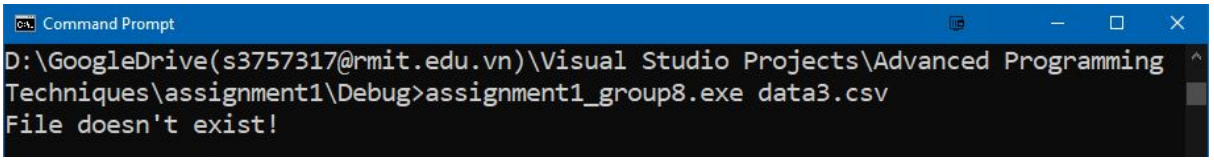
- Running the program with more than one argument:



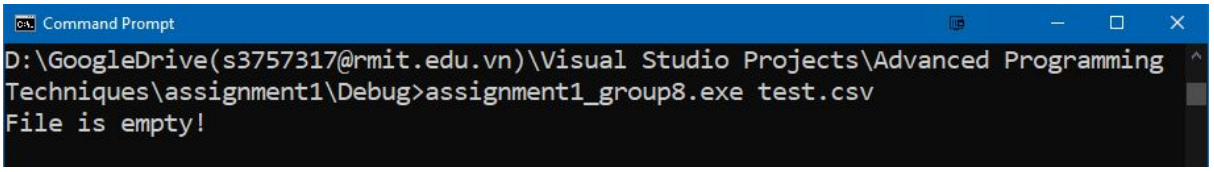
- Running the program with an argument but the name has no extension or the file is not a csv file:



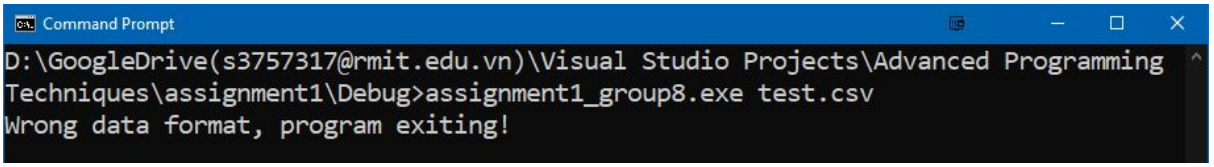
- Proper argument but the file does not exist:



- File exists but is blank:

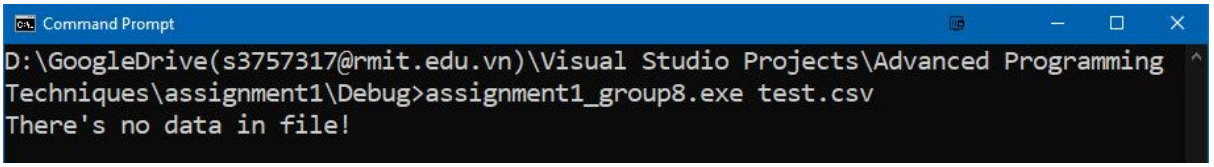


- File has improper data format:



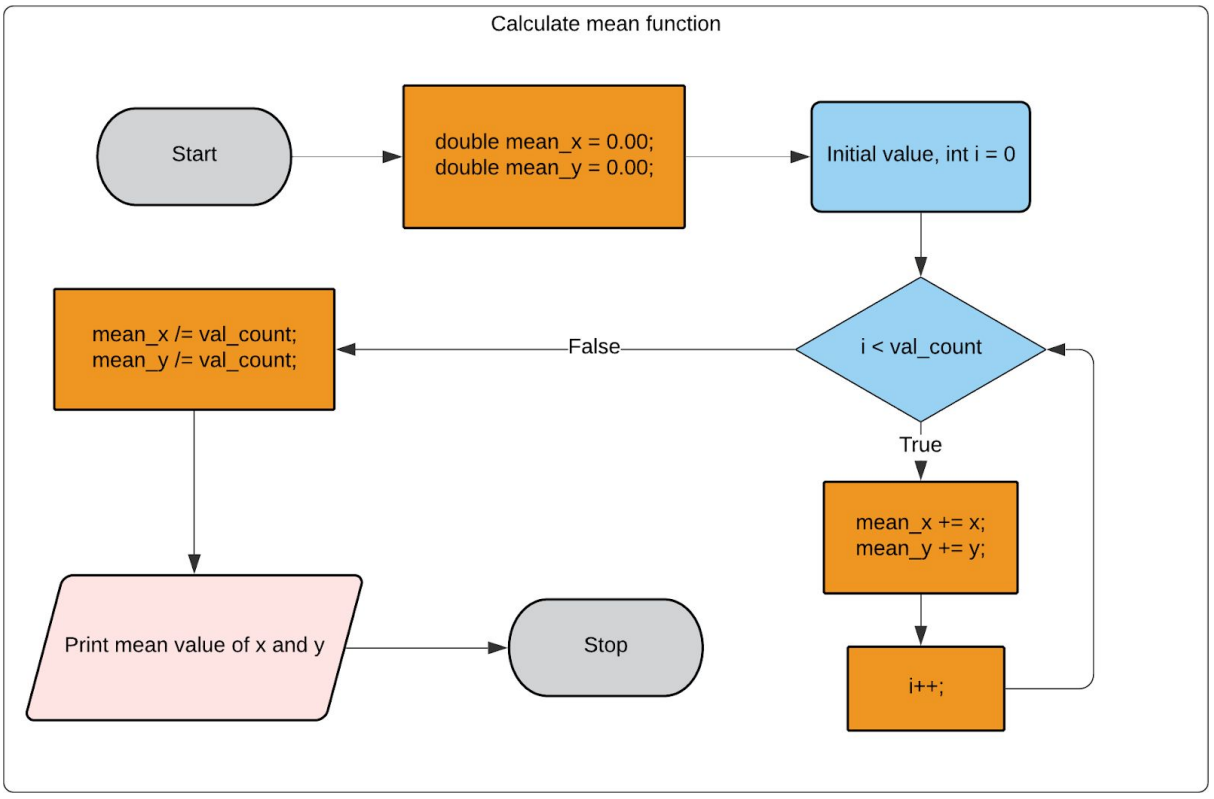
Data in test.csv file:
x,y,z
10,20,30

- File has no data:

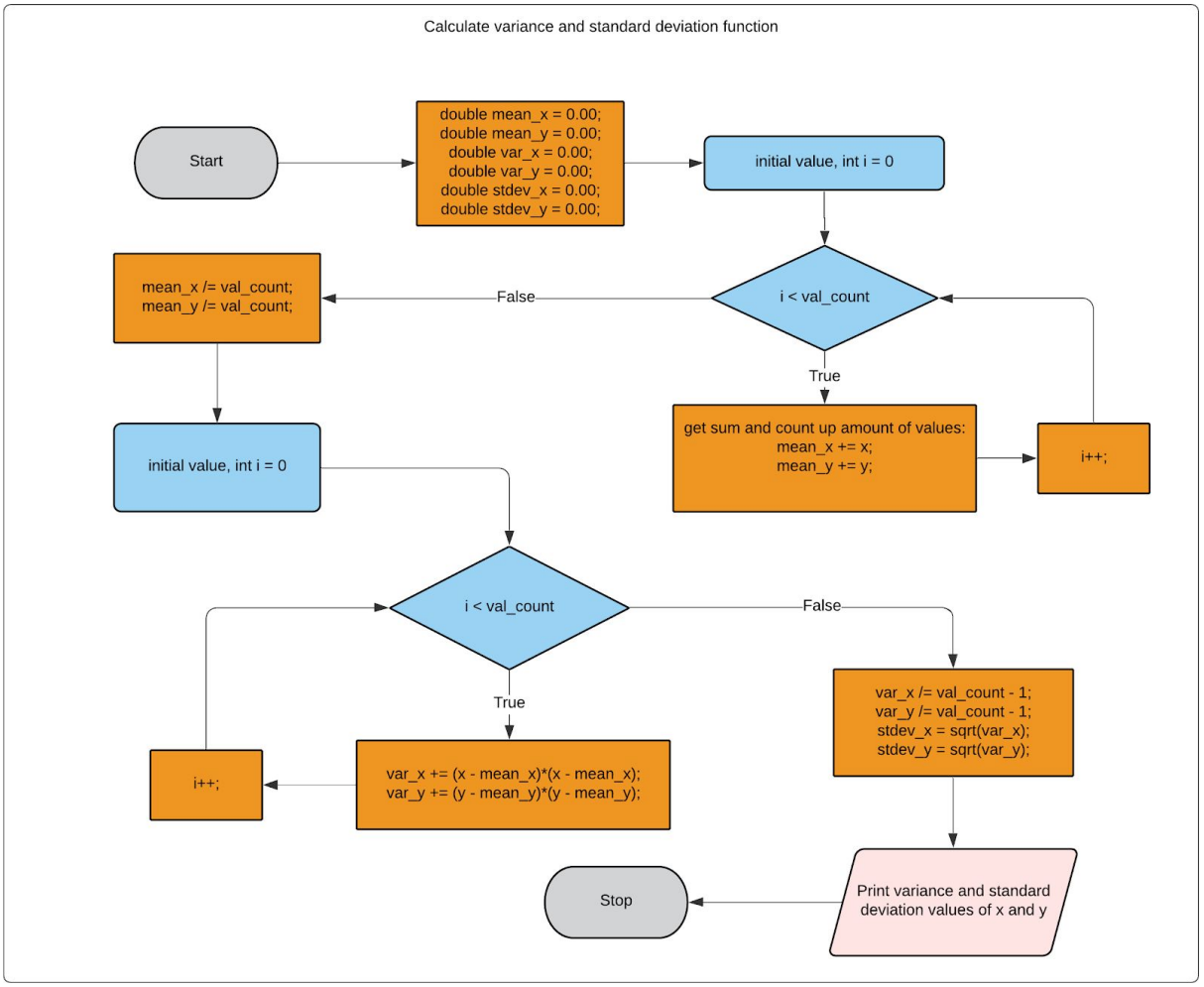


Data in test.csv file:
x,y
(rest of the lines are blank)

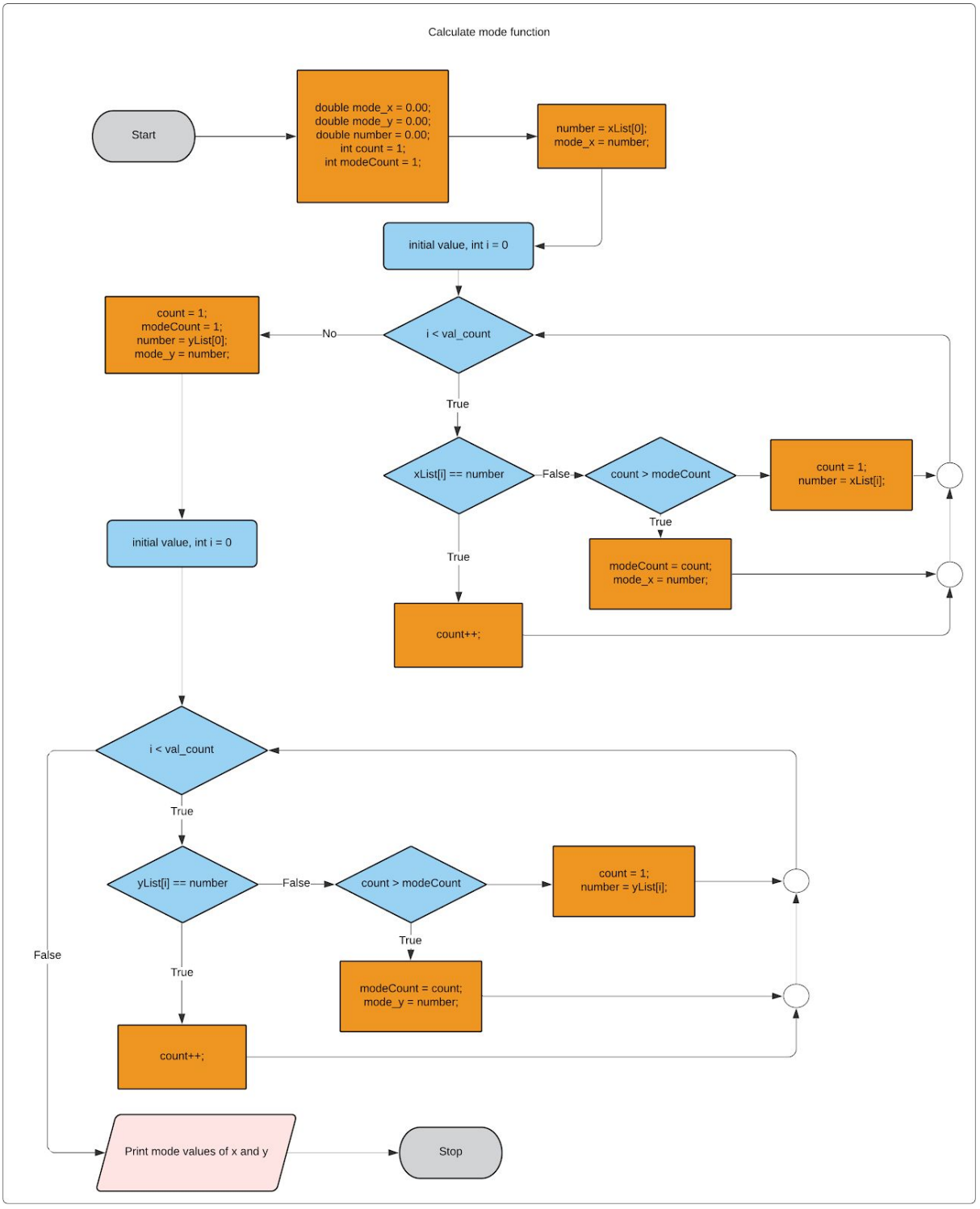
2.3. Flowcharts



Mean calculation function flowchart



Variance and standard deviation calculation function flowchart



Mode calculation function flowchart

3. Conclusion

We realized the assessment requirements became more ambiguous the more we worked on each task in the assignment, we were constantly put in a situation where we had to make compromises to satisfy the specifications of the assignment from each person's point of view, but the predicament was quickly resolved by having

conflicting parties list out pros and cons in meetings as well as having debates. Furthermore, we had to brainstorm a wide range of test cases, which forced us to write more codes to prevent crashes and undesirable results.