Lab 1 Write Up

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Implementation Notes

We chose to use Python as the language for our implementation, as it is a relatively simple language that we all have experience with. For our architecture, we decided to store the data in several dictionaries, so that we could quickly index using a search term. We created 5 dictionaries with the following keys: student last name, teacher last name, bus number, grade, and GPA. Each of these dictionaries contains a list student objects that correspond to that key.

Task Log

Flo:

- Student Object:
    - Start: 10:00am on Wed 4/3
    - End: 11am on Wed 4/3
    - Person Hours: 1
- Search Commands
    - Start: 3:00pm on Thurs 4/4
    - End: 4:00pm on Thurs 4/4
    - Person Hours: 1
- Test Script
    - Start: 1:00pm on Friday 4/5
    - End 3:00pm on Friday 4/5
    - Person Hours: 2

Daniel:

- Parse Students.txt and Populate Dictionaries
    - Start: 10:00am on Wed 4/3
    - End: 11:30pm on Wed 4/3
    - Person Hours: 2
- Manual Testing
    - Start: 11:00am on Thurs 4/4
    - End: 12:00pm on Thurs 4/4
    - Person Hours: 1

Steven:

- Command Line Prompts and Parsing
    - Start: 10:00am on Wed 4/3

- End: 11:30am on Wed 4/3
- Person Hours: 1.5

Testing Notes

- Daniel did some preliminary manual testing. It took just under an hour to go through commands by hand and test some sample input.
  - Bugs that were fixed:
    - Average gpa query would not output correctly if high/low flags were used
    - Data type of GPA stored in our objects would not work for average calculation
    - Nonexistent keys would crash program
- Flo wrote the test files and handled most of the testing. It took roughly 2 hours to write test and fix bugs.
  - Bugs that were fixed:
    - Invalid files were not properly handled
    - Wrong command line argument was used for query
    - Whitespace formatting was inconsistent
    - Wrong number of arguments would crash the program