

## Team Members

Ryan Hu, Kyle Taschek

## Initial Decisions

Python, VSCode, Git

## Internal Architecture

We created a Student Class that contained the attributes of each student in students.txt: StLastName, StFirstName, Grade, Classroom, Bus, GPA, TLastName, TFirstName. After parsing the students.txt file we stored each student's information in the Student object and added each Student instance to a list data structure. Once the file has been parsed, the program closes the file and only relies on the internal list structure to avoid opening/reading the file with every command. We chose to use a list because it has native support for iteration in Python and has efficient memory usage.

## Task Log

Student	Task	Start date	End date	Total hours
Ryan, Kyle	File parsing	1/8	1/8	0.5 hours
Ryan, Kyle	Query commands	1/8	1/10	1 hour
Ryan, Kyle	Lab write-up	1/8	1/16	0.5 hours
Ryan, Kyle	Query syntax error handling	1/15	1/15	0.5 hours
Ryan, Kyle	Testing	1/15	1/16	2.5 hours
Ryan	Test script reading	1/16	1/16	0.25 hours
Kyle	Readme	1/17	1/17	0.1 hours

## Testing Notes

- 1/10 - Ryan found a bug when entering a number as a query parameter. This was caused by mismatched type comparisons and took 0.25 hours to fix
- 1/15 - Kyle found a bug with the *S[tudent]: <lastname> B[us]* command. When "Bus" was spelled incorrectly, such as "Buss", the original *S[tudent]: <lastname>* command ran. This took 0.1 hours to fix.
- 1/16 - Kyle found a bug with the *A[verage]: <Number>* command. When "0" was inputted, the program would crash with a division by 0 error because there was no test for no students in a grade. This took 0.1 hours to fix.
- 1/16 - Kyle found a bug with the *I[nfo]* command, which would return 0 as the number of students for all grades. This took 0.1 hours to fix.

- 1/16 Ryan found a bug with the *A[verage]: <Number* command, where it wrongly printed an error because it was attempting to sum a list of strings. This took 0.1 hours to fix.

#### **Final Notes**

- We added a functionality to read the test suite file to make testing more efficient. This can be ran using “python schoolsearch.py <testfile>”. It treats all lines beginning with “//” as a comment.