**CSC 365 Lab 1 Part 2**

List of team members

Malcolm Craney, Dylan Halland, Owen Kehlenbeck

Initial decisions

Programming Language: We went with python because everyone on the team knows the language and its good at parsing files and working with strings. It also requires minimal setup and is easy to code and run.

Selected Internal Architecture

We continued to use the 2 existing objects, Query & Student. Query served the same purpose and did not necessitate any modification. Student, however, now lost its 2 teacher attributes. So, the object was changed to get rid of these 2 attributes, and a new object was created: Teacher. This object holds all pertinent information about a teacher and is useful for later retrieval of this info.

\*\* Decisions you made on how to modify your Part 1 code to accommodate new input data. \*\*

When I looked over this part of the assignment, I knew we needed a way to relate a Teacher and a Student to one another. I noticed the only attribute they shared was classroom. Thus, I changed the parsing logic for students to create a dictionary that maps a classroom to a list of students that all have class in that classroom. I also added new parsing logic for teachers.txt, that maps a classroom to the teacher that teaches it. The old commands didn’t require much change, they just now looked through the appropriate dictionary values instead of the list of students.

Task Log

Support New Files: Malcolm – 1.25 hours

Refactor Old Commands: Malcolm – 1.0 hours

NR1: Malcolm – 0.2 hours

NR2: Malcolm – 0.2 hours

NR3: Dylan - 0.5 hours

NR4: Dylan - 0.75 hours

NR5: GPA vs grade level – Owen, 0.75 hours

NR5: GPA vs teacher – Owen, 0.75 hours

NR5: GPA vs bus route – Owen, 0.75 hours

Notes on Testing

Final Notes

These are the new commands and syntax for part 2. They can also be found in README.md

CRS (Students in classroom)

CRS: <Classroom Number>

CRT (Teachers in classroom)

CRT: <Classroom Number>

GT (Teachers for grade)

GT: <Grade>

CRE (Classroom enrollment)

CRE:

GPAG (GPA relationship with grade)

GPAG: <Grade>

GPAT (GPA relationship with teacher)

GPAT: <Classroom Number>

GPAB (GPA relationship with bus route)

GPAB: <Bus Route Number>