

Modify part1:

In modifying part 1 code, all I had to do was update the way my function read in the text files works to be able to merge the two new datasets into one, identical to students.txt this was fairly simply to do and the rest of my code worked fine after just doing this fix. The implementation is all very similar to the previous portion of the lab as I just made functions for each command, even multiple for some. These functions take in the entire list and manipulate it to output the correct values.

Most of these functions rely on for loops to iterate through the full 2-d list in order to take out the correct information.

Time Allotment:

I spent roughly 2 hours implementing the new functions and roughly one hour on the rest of the lab which includes test cases and the test output file as well as this write-up.

Since I did lots of testing while implementing the program I did not need to fix many bugs, I had one issue with a capitalization issue but other than that everything worked smoothly.

Syntax: The output is comma separated unless specified otherwise, and the command prompt includes the string "Instructions>" to give the user an idea of how to use the program.

NEW COMMANDS:

class: <class number>

This will return all of the students in the class specified.

cteach: <class number>

This will return all of the teachers that teach in the given classroom.

gteach: <grade number>

This will return all of the teachers that teach in the given grade.

cenroll

This will return the enrollment by each classroom.

meang

This will return the mean gpa of each student in a given grade value.

meant

This will return the mean gpa of each student who has a given teacher.

meanb

This will return the mean gpa of each student who has a given bus route.

These are the new commands that have been implemented in the second portion of the lab.