

Project 3 Report

The objective of this project was to yet again expand and modify our previous GPA calculation/Degree Requirement check program. This time, once the user is able to input all their courses, they should be presented with a menu of options letting them do with what they please with the data they have entered into the program. The program should allow the user to calculate the total GPA, list all courses, compute the number of hours with grade D, compute the GPA for a particular semester, add another course to the list, as well as quit the program. The program should check whether or not the user has inputted correct values for the menu items a lot in the same way we used if-statements and while loops to check whether or not the character values in the grades were matched. Along with that, we added another parameter, course term, to differentiate between semesters. There were a few issues in getting the logic statements in the if-statements and loops to correctly check for the right character values in the menu options. Another issue I had was the `cin.ignore()` that allows me to input spaces in the names was messing with the comparison for the semester term check. Getting rid of that `cin.ignore()` command on the initial class term `cin` fixed it. The program works as advertised now. Example inputs and outputs are included on the next page.

Input 1

2
Programming I
Fall 2015
2004
4
A
Digital Design
Fall 2015
2014
4
B
a
b
c
q

Output 1

Enter how many classes you're taking/have taken:

Class name:

Term of enrollment (e.g. "Fall 2015"):

Course number:

Hours (1-5):

Grade:

Class name:

Term of enrollment (e.g. "Fall 2015"):

Course number:

Hours (1-5):

Grade:

Welcome to the GPA and Course storage program menu.

Now that you've entered your class information, please enter the character next to the choice you wish to pick.

- A. Compute the GPA for all courses
- B. List all courses
- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

Your GPA is: 3.5

- A. Compute the GPA for all courses
- B. List all courses

- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

Here are your courses:

ProgrammingI

Digital Design

- A. Compute the GPA for all courses
- B. List all courses
- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

Total hours (grade D): 0

- A. Compute the GPA for all courses

- B. List all courses
- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

Input 2

2
Programming I
Fall 2015
2004
4
A
Digital Design
Fall 2015
2014
4
D
a
e
Sociology
Fall 2015
2003
3
B
c
d
Fall 2015
b
q

Enter how many classes you're taking/have taken:

Class name:

Term of enrollment (e.g. "Fall 2015"):

Course number:

Hours (1-5):

Grade:

Class name:

Term of enrollment (e.g. "Fall 2015"):

Course number:

Hours (1-5):

Grade:

Welcome to the GPA and Course storage program menu.

Now that you've entered your class information, please enter the character next to the choice you wish to pick.

A. Compute the GPA for all courses

B. List all courses

C. Compute the total credit hours of courses with grade D

D. Compute the GPA for a particular semester

E. Add another course to the course list

Q. Quit the program

Your GPA is: 2.5

A. Compute the GPA for all courses

B. List all courses

C. Compute the total credit hours of courses with grade D

D. Compute the GPA for a particular semester

E. Add another course to the course list

Q. Quit the program

Class name:

Term of enrollment:

Course number:

Hours (1-5):

Grade:

- A. Compute the GPA for all courses
- B. List all courses
- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

Total hours (grade D): 4

- A. Compute the GPA for all courses
- B. List all courses
- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

What term would you like your GPA calculated from?

Your GPA is: 2.63636

- A. Compute the GPA for all courses
- B. List all courses

- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program

Here are your courses:

Programming I

Digital Design

Sociology

- A. Compute the GPA for all courses
- B. List all courses
- C. Compute the total credit hours of courses with grade D
- D. Compute the GPA for a particular semester
- E. Add another course to the course list
- Q. Quit the program