

Assignment 1

Due: September 9th

• In order to receive full credit, your program must be correctly running, implements all required functions/data and organized.

For the first program, we're going to do some minimal processing using iteration and selection.

The user (student at the university) wants to know the grade scale of a course that is taken this semester and his total percentage and grade in the course. We need your help to build up "**Grade System**" to be used by students and professors.

Development notes:

1- The program will output the following menu for the user, then the user will choose an option:

Welcome to Grade system:

How can we help you today?

- 1. Grade Scale.
- 2. Calculate your total % and Grade.
- 3. Exit
- 2- The output of the first option (grade scale), in case of the user entered number 1:

A: 90-100

B: 80-89

C: 69-79

D: 60-68

F: 0-59

- 3- In case the user chose number 2, then you have to calculate the total percentage grade. First, start by asking the user to enter the following grades: Assignments, Exam 1, Exam 2, and Final Exam.
 - a. Assignments, Exam 1 and Exam 2 each weight 80 points
 - b. Final Exam weight 100 points
 - c. You need to calculate total percentage depending on the following %:
 - i. Assignments weight 40%
 - ii. Exam 1, Exam 2, and Final exam each weight 20%
 - d. Once the total % is calculated, you need to output the total % to the user.
 - e. Depending on the %, you need to output the grade for the student depending on the grade scale as well.

Please enter your points in assignments, Exam1, Exam2, and Final Exam

Assignments out of 80:

80

Exam1 out of 80:

80

Exam2 out of 80:

80

Final Exam out of 100:

100

Your total grade percentage is 100

Depending on Grade scale, your Grade is

A

Finally, check if the user wants to have another operation, or if he wants to quit (y or n):

Do you want to have another transaction?

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In case of "Y", restart the program. Otherwise, terminate the execution and end the program.



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Assignment 1 demo:

Welcome to Grade system How can we help you today? 1. Grade Scale. 2. Calculate your total % and Grade. 3. Exit **Enter your choice:** A: 90-100 B: 80-89 C: 69-79 D: 60-68 F: 0-59 Do you want to have another transaction? Welcome to Grade system How can we help you today? 1. Grade Scale. 2. Calculate your total % and Grade. 3. Exit **Enter your choice:** Please enter your points in assignments, Exam1, Exam2, and Final Exam **Assignments out of 80:** 80 Exam1 out of 80: Exam2 out of 80: 80 Final Exam out of 100: Your total grade percentage is 100 Depending on Grade scale, your Grade is Do you want to have another transaction?

Submission:

Press any key to continue . . .

Zip up your entire project folder and submit the zip file to Canvas before the deadline. Note: write your name, program number and class section at the top of the cpp file.