PA 3

The programming assignment is to practices concepts about user-defined functions, reference parameters, file input/output, enum, and switch.

Program: GPA calculate (extension/improvement of PA2).

1. Define a function to print out "Welcome to the GPA calculation program!"
2. Define a function that:
    i.   10 points. Print out a sentence to guide the user to do the below input
    ii. 20 points. Read data from a file named "gpa_input.txt" (with 10 students grades, each student took 5 classes).
        1. Computer science, credits 4
        2. English, credits 3
        3. Writing, credits 3
        4. data mining, credits 4
        5. math, credits 2
    iii. 50 points. Calculate the average GPA of each person (round the GPA to 1 digit)
        1. A: gpa 4.0
        2. B+: gpa 3.5
        3. B: gpa 3.0
        4. C+: gpa 2.5
        5. C: gpa 2.0
        6. D: gpa 1.5
        7. F: gpa 1.0
        The average gpa = the corresponding GPA for the grade of class1 * the class credit + the corresponding GPA for the grade of class2 * the class credit + …

        For example, if a person Katy's grade for the above five classes is:
        A, A, C+, B+, A
        the corresponding gpa of each class is:
        4.0, 4.0, 2.5, 3.5, 4.0

        The average gpa = 4.0*4 + 4.0*3 + 2.5*3 + 3.5*4 + 4.0*2 = 3.6

    iv. 20 points. Write out to a file named "gps_output.txt" with each person's average GPA