The American University in Cairo
Computer Science & Engineering Department
CSCE 100109 - Fundamentals of Computing I
Spring 2022 – Assignment 2

This is an individual assignment. Rules governing academic integrity are strongly enforced without exception.

Intent: The intent of this assignment is to allow you to build confidence with problem solving, think about and write simple programs that include but are not limited to: input and output, basic iterations, and decision making. The problems vary in complexity, and may build on one another.

Solve the following problems using C++, and make sure you document your code with comments:

Hint: a single line comment is in this form : //write whatever you want here
//we use comments to explain more about the code

1. Create a new program file called **problem1.cpp** that will display several pieces of information about you. You should include comment lines in your program. (5 points)

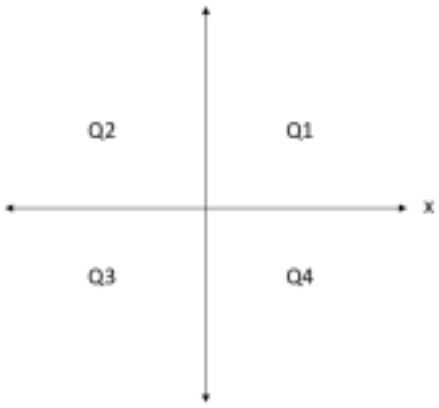
   Example output might be:
   My name is **Omar Ashraf**.
   I am **24** years old.
   I am **180.5** cm tall.
   I study **Computer Science** at the **American University in Cairo.**

2. Write a program called **problem2.cpp** that will allow a user to enter the personal information (in bold) above in both number (integer and float) and (character and string) form. Make sure you provide the user with a meaningful message so that they can input the correct data. Store all of this data as appropriate variables, and then re-display the information all together in the console, similar to the above. (5 points)

3. Write a program called **problem3.cpp** that prompts the user to enter their age, in years, as an integer, and the program will output either of the following: "You are eligible for a credit card at the bank" or "You are not eligible for a credit card at the bank". Assume the allowed age is 21 years. (10 points)

4. Write a program called **problem4.cpp** that asks the user to input three numbers, and the program will print out the number that is in the middle (median). (10 points)

5. Write a program called **problem5.cpp** that takes an (x,y) coordinate on the Cartesian plane and responds with the appropriate statement (one statement ONLY) from the list below: (20 points)



a. The point is on the x-axis.
b. The point is on the y axis.
c. The point is in quadrant I.
d. The point is in quadrant II.
e. The point is in quadrant III.
f. The point is in quadrant IV.
g. The point is the origin.