

DT211C/1 Programming Assignment #1

Due Date: **Sunday, November 10th, 2019 (11.59pm)**

Requirements:

You are required to develop a program that will simulate a mathematics quiz game. The game will include various features, each of which must be incorporated into your program.

Your program should be menu-driven and must display a main menu when run. The menu should include the following options:

1. Enter the number of questions to be asked for this round of the quiz (maximum of 5 questions allowed).
2. Start quiz
3. Display the number of questions that were answered (i) correctly and (ii) incorrectly for this round.
4. Exit Program

Features to include:

1. Your program should continually run and re-display the main menu after each option has completed, i.e. start over again. Only when the customer enters option 4 (i.e., Exit Program), should your program terminate.
2. For option 2, your program should display a simple mathematical question and ask the user to enter the answer. After the user has entered their answer, your program should display the correct answer beside the user's answer. Your program should then ask the next question (if there are more to ask) and continue this sequence.

For example:

Question 1: $9 / 3 + 6 = ?$

6

You entered: 6 - Wrong !! The correct answer: 9

3. Option 3 should only be allowed to be selected after the user selects option 2 (plays the quiz). If the user starts a new quiz, option 3 should be reset from the previous round (i.e. Do not count correct & incorrect answers for all rounds).
4. Try to take account of input errors by the user and display appropriate error messages.

Submission details:

1. Submit your program (.c source code file only) using the assignment listed in the Programming module in Brightspace. This must be submitted on or before **Sunday, November 10th, 2019 (11.59pm)**.
2. Marks will be awarded for well-written code (comments, indentation, whitespace, good use of brackets, etc.,).

Note: You are required to demo your program in the lab session within 2 weeks following submission. Failure to demo your program will result in a zero mark being recorded.

Late submissions (within 1 week) will be marked out of 50%. No submissions accepted after 1 week and a zero mark recorded.

NB - This is an individual assignment and **NOT** a group one. Do your own work and do not copy the work from a fellow student. Any assignments submitted which are found to be copied will result in both students failing the assignment. Also, any students found to provide their work to other students will fail this assignment. Suspected copying or plagiarising of another piece of work will be dealt with by the TU Dublin code of ethical conduct.