CSE108 – Computer Programming Lab.

Lab 1

Basic IO Operations and Expressions

Due 10/03/2023 at 10am.

Hand in: A student with number 20180000001 should hand in a zip file named 20180000001.zip for this lab.

Part 1. (30 pts) Write a C program that prompts the user to enter an integer value between 1 and 100. The program prints an output by the following operations:

- If the entered value is divisible by 3, output "Fizz",
- If the entered value is between 5 and 50, output "Buzz",
- If the entered value is divisible by 3 and between 5 and 50, output "FizzBuzz".

Note that, you are allowed to use at most two if – else statements.

Part 2. (30 pts) Write a C program that takes *X* and *Y* decimal numbers from the user and calculates the *Z* value by the following formula:

$$Z = \frac{X}{Y} + \frac{\max(X, Y)}{X + Y}$$

Please note that you can't use any type of function to determine which of X and Y is the maximum value.

Part 3. (40 pts) Write a C program that prompts the user to enter age and years of experience of an employer to calculate and print her/his salary by the lookup table in below:

Age	Years of Experience	Salary
<20	0 – 10	10.000
<20	>10	Error
20 – 50	0 – 10	15.000
20 – 50	>10	20.000
>50	0 – 10	20.000
>50	>10	25.000

General Rules:

1. You will have two hours to provide a solution to the given problem set. You are not permitted to ask any questions. If there is a significant error in the assigned tasks, it will be addressed later.
2. You will be able to hand in your solutions via Teams in the next two hours. The submission will be closed exactly at 10am.
3. There will be an interview session immediately after the submission deadline. Starting at 10am, you will be randomly invited to attend a meeting by a TA to demonstrate your solution and answer any questions asked by the TA.
4. You must be available until 1pm to respond to the demo invitation whenever you receive it. You will have 3 minutes after you are called via Teams. If you do not answer/appear in 3 minutes, you will miss you interview.
5. If you miss your interview or are unable to give satisfactory answers to the questions, you will receive a zero for that lab even if you have submitted your solution.
6. If you have not submitted a solution in time, you will not be invited for the interview and receive zero for that lab.
7. Due to time constraints, some students may not be invited to an interview. In that case, their solutions will be graded offline.
8. Unless you aren't declared for a specific prototype, you may use arbitrary but proper function and variable names that evoke its functionality.
9. The solution must be developed on given version of OS and must be compiled with GCC compiler, any problem which rises due to using another OS or compiler won't be tolerated.
10. Note that if any part of your program is not working as expected, then you can get zero from the related part, even it is working partially.
11. Zip your solution file before uploading it to MS Teams. The zip file must contain the C file with your solution and screenshots of the valid outputs of the program.