CSC 1100 – Elements of Programming | QUIZ 2 | Semester 1, 2019/2020

Name: …….. **Matric No**: …….. **Section:** …..

1. INSTRUCTIONS:

- Attempt **all** exercises. Each question carries **equal marks.**
- Submit your solutions by uploading the files to the Google Classroom. The first submission will be considered as the final submission.
- For Exercise 1, submit the solution as .docx or pdf.
- For Exercise 2, programming files/others must be submitted as .cpp or .txt.
- Name, Matric Number & Section should be included in the beginning of all relevant files.
- **This quiz bears 10 Marks (10% of your Total Course Evaluation).**

2. IMPORTANT DATES

SUBMISSION DEADLINE: **15th Dec, 2019 - 10: 00 AM**

3. EXERCISES

Exercise 1: This is a code tracing exercise. As a part of this exercise you have been provided with the following files:

a. *SaleByQuarter* containing the program
b. *SalesData* containing sales data
c. *SalesManID* containing sales person's ID

You are required to dry run the program and find all components that will occupy a memory space. Using the table below, list down the components serially and all their possible values when the program executes. Each row in the table below represents one memory location. Examples are provided for reference.

COMPONENT	VALUE
Variable 1	~~1 2 3~~ 6
Variable 2	~~5 6 7~~ 2
Variable n	7
Array 1	

Exercise 2: Write a program that reads students' names followed by their test scores. The program should output each student's name followed by the test scores and the relevant grade. It should also find and print the highest test score and the name of the students having the highest test score.

Student data should be stored in a struct variable of type studentType, which has four components: studentFName and studentLName of type string, testScore of type int (testScore is between 0 and 100), and grade of type char. Suppose that the class has 20 students. Use an array of 20 components of type studentType.

Your program must contain at least the following functions:

a. A function to read the students' data into the array.
b. A function to assign the relevant grade to each student.
c. A function to find the highest test score.
d. A function to print the names of the students having the highest test score.

Your program must output each student's name in this form: last name followed by a comma, followed by a space, followed by the first name; the name must be left justified. Moreover, other than declaring the variables and opening the input and output files, the function main should only be a collection of function calls.

*****END*****