

## ECS-102 LAB TASK 10 – Structure and and 2D array

For question 1-3:

Create Student Structure which accepts name, roll no and marks of subjects and print it in the screen. Write the program for the following:

1. In this program, create a structure (student) which contains name, rolls and marks as its data member. Then, create a variable “stud” of the structure type student. Data (name, roll and marks) is taken from the user and stored in data members of the variable of structure type student. Finally, the data entered by the user has to be displayed on the output.
2. Create an array of 10 elements of the type structure student. Ask User to then enter the data (name, roll and marks) for 10 Students which will be stored in that array of structures. Finally, the data entered by the user has to be displayed on the screen using loops.
3. Create another structure of type college. In college structure, add three data members college name, place and “stud” structure (Nested). Data (name, roll, marks, college name, college place) for 10 Students will be asked to the user and stored in an array of structures. Finally, the data entered by the user should be displayed.
4. Write a program to compute and print a multiplication table for numbers 1 to 5 as shown below:

1	2	3	4	5
2	4	6	8	10
3	6	9	12	15
4	8	12	16	20
5	10	15	20	25

Each value is calculated using the control variables of the nested for loops as follows:

$\text{product}(i,j) = \text{row} * \text{column}$

where i denotes rows and j denotes columns of the product table. Since the indices i and j ranges from 0 to 4, you can use the following transformation:

$\text{row} = i+1$

$\text{column} = j+1$

