SSN COLLEGE OF ENGINEERING
DEPARTMENT OF CSE

PROGRAMMING AND DATA STRUCTURES LABORATORY I
(CS6212)

Ex. No. 3   C Programs using Structures and Unions

1. Define a structure that represents a *Point* in 3D. Model a triangle using *Point* structure. Write a program to check whether a given triangle is equilateral or not.

2. Define a structure called *Medicine* which contains the attributes *Name, Vendor, Manufacture Date, Expiry Date, Cost and other required attributes.* Simulate the working of a medical shop. Write a method that automatically generates a message whenever any particular medicine is low in stock and also perform the following operations:

      i) Buy a new drug
      ii) Sell a drug
      iii) Check availability of a drug
      iv) Display all drugs with details in table format

    Whenever a drug is bought or sold, update the available stock. Write required functions for the above operations and develop as an application.

3. Write a program to demonstrate **the difference between structure and union** (with respect to size and access).

4. Develop a phonebook application. The application should be able to store, delete, modify and list entries in the phonebook. A phonebook entry consists of the name of a person and his contact information. The name should consist of his first name and last name and the contact consists of the landline number and mobile number of the person. Write user defined functions for the mentioned operations and access the functions from the main using a **function pointer**. Write as a menu driven program.

Note: No global declaration of variables