

ITE 101 – Problem Solving Using C

Lab Cycle Sheet – III

STRUCTURES

52. A hospital keeps a list of blood donors in which each record has the following fields:
NAME, AGE, ADDRESS and BLOOD TYPE
Write a program to create an array of structures to store all these details and print the list of all blood donors whose age is below 35 and blood type is 'O+'.
53. Declare a structure by the name STUDENT with the following as its members.
STUDENT NO , NAME, DOB, MARKS IN 5 SUBJECTS, TOTAL, GRADE.
Write a program to read the student no, name, DOB & marks in 5 subjects for all the students in a particular class. Calculate their total marks and grade. Write user-defined functions to sort them by name and DOB.
[Use nested structure for the DOB field and an array for storing the marks in 5 subjects]

POINTERS

54. Write a program to swap two numbers using call by reference method.
55. Read two strings and implement strcat() and strcpy() functions using pointers.
56. Using Pointers, write a program to perform matrix addition.

FILES

57. Write a C program to read a text file and display the number of characters , words and lines in it.
58. Write a program to read the contents of FILE1. Copy only the alphabets from FILE1 to FILE2 and the remaining characters to FILE3. Display the contents of FILE2 & FILE3.
59. A random access file contains records of all employees of a company. The management announces 15% hike in DA only for the Project Leaders. Update the relevant records in the same file and display its contents. Also display the n^{th} record of the file.