UNIT-6 (FILE HANDLING)
(RAM GOPAL GUPTA- http://ramgopalgupta.com/)

PART-1

Files:

A file is a means for the permanent storage of data. The C language provides a set of rich library functions to perform input and output (I/O) operations. A data file is a collection of data items stored permanently in persistent storage area. The C language provides the facility to create these data files, write data into them, read back data, modify them and many more operations.

File handling in C enables us to create, update, read, and delete the files stored on the local file system through our C program. The following operations can be performed on a file:

- Creation of a file
- Opening a file
- Reading a file
- Writing to a file
- Closing a file

Functions for file handling:

No.	Function	Description
1	fopen()	opens new or existing file
2	fprintf()	write data into the file
3	fscanf()	reads data from the file
4	fputc()	writes a character into the file
5	fgetc()	reads a character from file
6	fclose()	closes the file
7	fseek()	sets the file pointer to given position
8	ftell()	returns current position
9	rewind()	sets the file pointer to the beginning of the file

Case Example:

When we say, accept the record of 5 students which include rollno, sname, course, sem, age and then display them.

What will be your answer for above case?

Smart answer is define a structure with rollno, sname, course, sem, age then define an array of this structure with size 5 because I want store the record of 5 students.

The above structure array will create at runtime into the main memory when the program will finish then it will finish. That means your records stored into the structure array will be lost. You can't display them on next program run.

A question arises in our mind, is there any facility to store records permanently so that when we run the program next time those records can be shown and we can proceed further.

The answer is file handling and we will discuss this topic in current unit.