

Software Lab II: Assignment 1

Marks-10

Programming Language: C or Python

Deadline: 1 week (Evaluation will be on next week based on code run checking and viva)

Note: you can refer Internet but code logic and method should be learn properly for viva.

1. Write a program to create a file and write contents, save and close the file.
2. Write a program to read file contents and display on console.
3. Write a program to read numbers from a file and write even, odd and prime numbers to separate file.
4. Write a program to append content to a file.
5. Write a program to compare two files.
6. Write a program to copy contents from one file to another file.
7. Write a program to merge two file to third file.
8. Write a program to count characters, words and lines in a text file.
9. Write a program to remove a word from text file.
10. Write a program to remove specific line from a text file.
11. Write a program to remove empty lines from a text file.
12. Write a program to find occurrence of a word in a text file.
13. Write a program to count occurrences of a word in a text file.
14. Write a program to count occurrences of all words in a text file.
15. Write a program to find and replace a word in a text file.
16. Write a program to replace specific line in a text file.
17. Write a program to print source code of same program.
18. Write a program to convert uppercase to lowercase character and vice versa in a text file.
19. Write a program to find properties of a file using stat() function.
20. Write a program to check if a file or directory exists.
21. Write a program to rename a file using rename() function.
22. Write a program to list all files and sub-directories recursively.

Reference:

File Handling in C

In programming, we may require some specific input data to be generated several numbers of times. Sometimes, it is not enough to only display the data on the console. The data to be displayed may be very large, and only a limited amount of data can be displayed on the console, and since the memory is volatile, it is impossible to recover the programmatically generated data again and again. However, if we need to do so,

we may store it onto the local file system which is volatile and can be accessed every time. Here, comes the need of file handling in C.

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 the new file
- Opening an existing file
- Reading from the file
- Writing to the file
- Deleting the file

Functions for file handling

There are many functions in the C library to open, read, write, search and close the file. A list of file functions are given below:

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	fputw()	writes an integer to file
9	fgetw()	reads an integer from file
10	ftell()	returns current position
11	rewind()	sets the file pointer to the beginning of the file

