File on C

A collection of data which is stored on a secondary device like a hard disk is known as **a file**.A file is generally used as real-life applications that contain a large amount of data.

The operations that you can perform on a File in C are –

- Creating a new file
- Opening an existing file
- Reading data from an existing file
- Writing data to a file
- Moving data to a specific location on the file
- Closing the file

File operation function on c

fopen()
create a new file for use /open a new existing file for use

fclose()
close a file which has been opened use

getc()
read character from file

putc()
write character to a file

fprintf()
Write a set of data values to a file

fscanf()
Read a set of data value from a file

getw()
reads a integer from a file

putw()
write a integer to a file

fseek()
sets the position to a de point in the file

ftell()
give the current position in the file

refined()
sets position to the beginning of the file

File Mode

Mode	Meaning
"r"	Open file on reading mode
"w"	Create file for writing
"a"	Open the file append mode(can add data on existing file or new file)
"r+","w+","a+"	Read and write mode
"rb"	binary file in read mode
"wb"	binary file write mode

Syntax of creation of file

FILE * File pointer;

file_pointer=fopen("file_name","file mode");

example of file creation ;

FILE *fp

 fp=fopen("test.txt","w");   *// open or create file*

fclose(fp)   *// close file*

```c
// wap to receive and print student info and store on file
#include<stdio.h>
#include<conio.h>
main()
{

    FILE *fp ;
    char st_name[20];
    int roll ;
    int grade;
    fp=fopen("test1.txt","w");      // open or create file

    printf("enter studen name");
    scanf("%s",&st_name);

    printf("enter student roll");
    scanf("%d",&roll);

    printf("enter grade");
    scanf("%d",&grade);

    fprintf(fp,"your name  is %s\n",st_name);
    fprintf(fp,"your roll no is %d\n",roll);
    fprintf(fp,"your grade is %d \n", grade);

    printf("Data entered successfully");
    fclose(fp);
    getch();
}
```

```c
1    // write a program to read name and marks of n number of students and store them in a file.
2    #include<stdio.h>
3    #include<conio.h>
4    struct students
5    {
6        char name[50];
7        int marks;
8    };
9    int main()
10   {
11       int n, i;
12       FILE *fp;
13       fp = fopen("student1s.txt","w");
14       printf("Enter number of students");
15       scanf("%d",&n);
16       struct students std[n];
17       for (i=0;i<n;i++)
18       {
19           printf("Enter name of student");
20               scanf("%s",std[i].name);
21                   printf("Enter marks of student");
22               scanf("%d",&std[i].marks);
23               fprintf(fp,"Name:%s \t Marks: %d \n",std[i].name,std[i].marks);
24
25       }
26
27       printf("Data entered successfully");
28       fclose(fp);
29       getch();
30   }
```

```c
// wAP to get data from file
#include<stdio.h>
#include<conio.h>
main()
{
    FILE *fp=fopen("test.txt","r");
    char ch;
    ch=getc(fp);
    while(ch!=EOF)
    {
        printf("%c",ch);
        ch=getc(fp);
    }
    fclose(fp);
    getch();
}
```