

Chapter 8 : Files in C

What do you mean by file? What are the different functions available to read data from the file?

- For handling or accessing the contents of file, there are certain predefined functions available in c programming Language.
- Important thing required to access files is "FILE pointer ". this pointer is used to point to the values stored
In the file .A file pointer is hence to be created for accessing the files.the syntax for creating a file pointer
Is given below
FILE * <identifier for pointer>;
For e.g. FILE *fp;
- Hence in every program we write in this section to access files, we will use this kind of pointer

Declaration .this pointer is used to point the data to accessed in the file i.e whenever a data is read or written in the file, it is from the location pointed by the pointer "fp".

Let us see these function and there use in programming

1)fopen():

This function is used to open a file to be accessed in the program. The file to be opened is to be passes as a string parameter to the function and also the mode of opening the file is to be passed as the string to the function. Hence the syntax of the function with parameters is as given below.

Syntax:

<file pointer identifier>=fopen("<file name>","<mode of opening the file>");

e.g. fp=fopen("test.txt","w");

open modes

The allowed modes for fopen are as follows:

r - open for reading

w - open for writing (file need not exist)

a - open for appending (file need not exist)

r+ - open for reading and writing, start at beginning

w+ - indicates that is the file is to be opened in write and read mode.

r+ - indicates that is the file is to be opened in read and write mode.

2)fclose():When you're done working with a file, you should close it using the function

Syntax:

fclose<File pointer identifier> ;

for e.g. fclose(fp);

-fclose returns zero if the file is closed successfully.

3)feof():the function returns true or false based on whether the pointer pointing to the file has reached the end of the file or not.

Syntax:

Feof<File pointer identifier> ;

for e.g. feof(fp);

4)fputc(): The function is used to put a character type data into the opened file using the fopen() function,Pointer by a file pointer.

Syntax :

fputc(<char type data>,<file pointer identifier>);

for e.g fputc(c,fp);

5) getc ():function brings the character form the file opened and pointer by the file pointed by the file pointer

Variable passed to the function.

Syntax:

getc(<file pointer identifier>);

e.g. getc(fp);

6)rewind():This function is used to rewind or bring the file pointer variable to point to the beginning of the

File from wherever it is currently pointing in the file. The syntax of the function call

Syntax :

rewind(<file pointer identifier>);

For e.g rewind(fp);

7)fprint():this function used to store the different data types in file as the fputc() function is used to store the character in the file.

Syntax:

fprint(<file pointer identifier>,"<format specifies>",<variable names>);

For e.g. Fprint(fp,"%d",x);

8)fscanf(): the function is used to read the different types of data as the getc() function is used to read a character from the file.

Syntax:

fscanf(<file pointer variable>,"<format specifies>",<address of the variables in which the data is to be read>);

e.g.

```
fscanf(fp,"%d",&x);
```

Example :

WAP to accept a set of characters from user until the user presses the full stop (' . ') and store it in a text file Read from the file and display the contents of the file.

```
# include<stdio.h>
```

```
# include<conio.h>
```

```
void main()
```

```
{
```

```
    FILE *fp;
```

```
    char c=' ';
```

```
    clrscr();
```

```
    fp=fopen("test.txt","w");
```

```
    printf("Write data to be stored in the file and once completed press the full stop (.):\\n");
```

```
    while(c!='.')
```

```
    {
```

```
        scanf("%c",&c);
```

```
        fputc(c,fp);
```

```
    }
```

```
    fclose(fp);
```

```
    fp=fopen("test.txt","r");
```

```
    while(!feof(fp))
```

```
    {
```

```
        printf("%c",getc(fp));
```

```
    }
```

```
    fclose(fp);
```

```
    getch();
```

```
}
```

```
/******output *****/
```

Write data to be stored in the file and once completed press the full stop (.):

This is file handling program in C.

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UNIVERSITY PAPERS QUESTIONS :

What do you mean by file? What are the different functions available to read data from the file? what are the different mode in which we can open a file along with syntax ? (May 2013,2014 / Dec 2013,2014,2015)