

C LIBRARY FUNCTION - FOPEN

http://www.tutorialspoint.com/c_standard_library/c_function_fopen.htm

Copyright © tutorialspoint.com

Description

The C library function **FILE *fopen***constchar * filename, constchar * mode* opens the **filename** pointed to, by filename using the given **mode**.

Declaration

Following is the declaration for fopen function.

```
FILE *fopen(const char *filename, const char *mode)
```

Parameters

- **filename** – This is the C string containing the name of the file to be opened.
- **mode** – This is the C string containing a file access mode. It includes –

mode	Description
"r"	Opens a file for reading. The file must exist.
"w"	Creates an empty file for writing. If a file with the same name already exists, its content is erased and the file is considered as a new empty file.
"a"	Appends to a file. Writing operations, append data at the end of the file. The file is created if it does not exist.
"r+"	Opens a file to update both reading and writing. The file must exist.
"w+"	Creates an empty file for both reading and writing.
"a+"	Opens a file for reading and appending.

Return Value

This function returns a FILE pointer. Otherwise, NULL is returned and the global variable errno is set to indicate the error.

Example

The following example shows the usage of fopen function.

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

int main()
{
    FILE * fp;

    fp = fopen ("file.txt", "w+");
    fprintf(fp, "%s %s %s %d", "We", "are", "in", 2012);

    fclose(fp);

    return(0);
}
```

Let us compile and run the above program that will create a file **file.txt** with the following content

—

```
We are in 2012
```

Now let us see the content of the above file using the following program –

```
#include <stdio.h>

int main ()
{
    FILE *fp;
    int c;

    fp = fopen("file.txt", "r");
    while(1)
    {
        c = fgetc(fp);
        if( feof(fp) )
        {
            break ;
        }
        printf("%c", c);
    }
    fclose(fp);

    return(0);
}
```

Let us compile and run the above program to produce the following result –

```
We are in 2012
```

```
Loading [MathJax]/jax/output/HTML-CSS/fonts/TeX/fontdata.js
```