C-121 → <u>File Handling in C</u> → <u>Part 3</u>

<u>Writing in a File in C language</u>
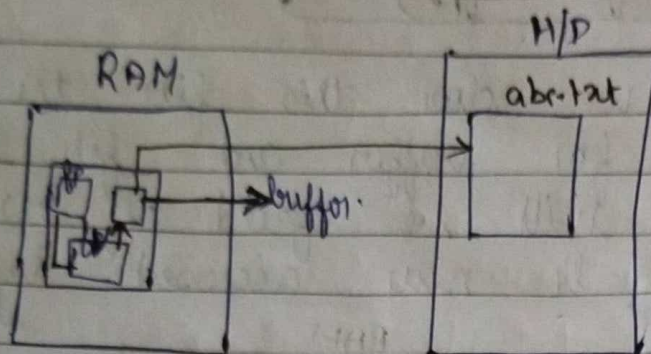
* To write something into a file; we should check two cases.
- → file exist
- → file do not exist.

* If file exist, first we need to load that file into the RAM/main memory containing buffer.

* Then file open function is used to open that file; which is turn creates a buffer and file variable memory which is pointed by file pointer.

* Using file pointer; we choose the mode to access the file and after everything is finished; it will be loaded into buffer and back the hard disk of file and finally remove file pointer.

* If file do not exits then create a
file and do other operations.

```
main ()
{
    FILE *fp;

    fp = fopen ("abc.txt", "w");
                            ↑
         "w" mode          ↓
```

* "w" mode means whatever the
content exist is "abc.txt" is
erased and opened into the
buffer (or) overwritten file.

* If file do not exist, first
it will create a file; then
it will open the file. and
                    write

* To write something to a
file we have 3 functions,

→ fputc (write a character into file)
→ fputs (write string into file)
→ fprintf (write something into file).

If file is
in some
other location
we have
to specify
the complete
path; or else
if file is
there is
the same
directory where
we have
our program;
then no
need to
specify
full path
of file name.

Note
* putc → write a character into screen.
puts → write string into screen

* To write single character into a file we use fputc.

Eg:- main()
{

  FILE * fp;

  char ch = 'a'; char ch1;
printf (" Enter character : "); scanf (" %d", &ch1);
  fp = fopen (" abc.txt ", "w");

```
fputc (ch, fp);
```
⟶ using variable put character

(or)

```
fputc ('a', fp);
```
⟶ directly put character

(or)

```
fputc (ch, fp);
```
⟶ take input from user for variable then put character

  fclose (fp);

  }

* To write a string into a file we use fputs.

Eg:-   main()
            {
                FILE * fp;

                char str[50] = "Jennys Lecture";

                fp = fopen(" abc.txt ", "w.");

                fputs(str, fp);

                fclose(fp);

                3.

or) also
take input
from user }

char str[50];
printf("Enter
        string")
gets (str);

* If we want to write a single
character by character from a string; Then
use loop conditions for fputc.

Eg:-   main()
            {
                FILE * fp;   int i;
                char str[50] = "Jennys Lecture ";

                fp = fopen(" abc.txt", "w");

                for(i=0; i! = strlen(str); i++)
                {
                    fputc (str[i], fp);

                3
                fclose (fp);
            }

strlen()
will provide
length of
the string
which is
predefined
function ──→ so use header file string.h.

* Thus why we use fprintf function, using this we can use all i'es we can write down number, character, float or any other data types but we only want to specify the format specifier for specific data types either %d or %c or %f ... etc.

→ printf/scanf

So that only they are known as formatted output or input functions

Eg:- main()
{
    FILE *fp;   = NULL ⟵ or
    int a = 10;
    char str[50] = " Jerrys Lecture";

    Char = 'c';

    fp = fopen("abc.txt", "w");

    fprintf(fp, "%d %s %c", a, str, char);

    fclose(fp);
}

Note:- If we can't access the file or the file is in use by any other; to verify that we can check using file pointer
eg:- if(fp == NULL)
{
    printf("No file");
    exit(1);
}

Left margin (vertical text):
Append mode → ned the previous content with adding content in, read the previous content with adding content in fptr. (or) do(we in, read video).

```c
#include <stdio.h>
#include <stdlib.h>
/** 1-FILE HANDLING-WRITE MODE **/
/** WRITING CHARACTER INTO A FILE **/
int main()
{
    FILE *fp;

    char ch;
    printf("Enter the value of ch: ");
    scanf("%c",&ch);
    fp=fopen("abc.txt","w");

    fputc(ch,fp);

    fclose(fp);

    return 0;
}
```

```
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Enter the value of ch: a

Process returned 0 (0x0)   execution time : 2.019 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:05 PM	File folder
obj	04-Jun-22 4:05 PM	File folder
1_FILE HANDLING_WRITE MODE	04-Jun-22 3:52 PM	project file
abc	04-Jun-22 4:05 PM	TXT File
main	04-Jun-22 4:05 PM	C File

File name "abc.txt" which do not exist in this folder is now created and character what we give as input at the run time is written into this file "abc.txt"

Name	Date modified	Type
bin	04-Jun-22 4:05 PM	File fold
obj	04-Jun-22 4:05 PM	File fold
1_FILE HANDLING_WRITE MODE	04-Jun-22 3:52 PM	project
1_FILE HANDLING_WRITE MODE.layout	04-Jun-22 4:13 PM	LAYOUT
abc	04-Jun-22 4:10 PM	TXT File
main	04-Jun-22 4:10 PM	C File

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abc.txt

```
1   a
```

```c
#include <stdio.h>
#include <stdlib.h>
/** 2-FILE HANDLING-WRITE MODE **/
/** WRITING CHARACTER INTO A FILE **/
int main()
{
    FILE *fp;

    char ch;
    printf("Enter the value of ch: ");
    scanf("%c",&ch);
    fp=fopen("abc.txt","w");

    fputc(ch,fp);

    fclose(fp);

    return 0;
}
```

Name	Date modified	Type
2_FILE HANDLING_WRITE MODE	04-Jun-22 4:30 PM	project file
main	04-Jun-22 4:31 PM	C File

```
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Enter the value of ch: a

Process returned 0 (0x0)   execution time : 3.307 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:32 PM	File folder
obj	04-Jun-22 4:32 PM	File folder
2_FILE HANDLING_WRITE MODE	04-Jun-22 4:30 PM	project file
abc	04-Jun-22 4:32 PM	TXT File
main	04-Jun-22 4:31 PM	C File

Name	Date modified	Type
bin	04-Jun-22 4:32 PM	File folder
obj	04-Jun-22 4:32 PM	File folder
2_FILE HANDLING_WRITE MODE	04-Jun-22 4:30 PM	project file
abc	04-Jun-22 4:32 PM	TXT File
main	04-Jun-22 4:31 PM	C File

Type

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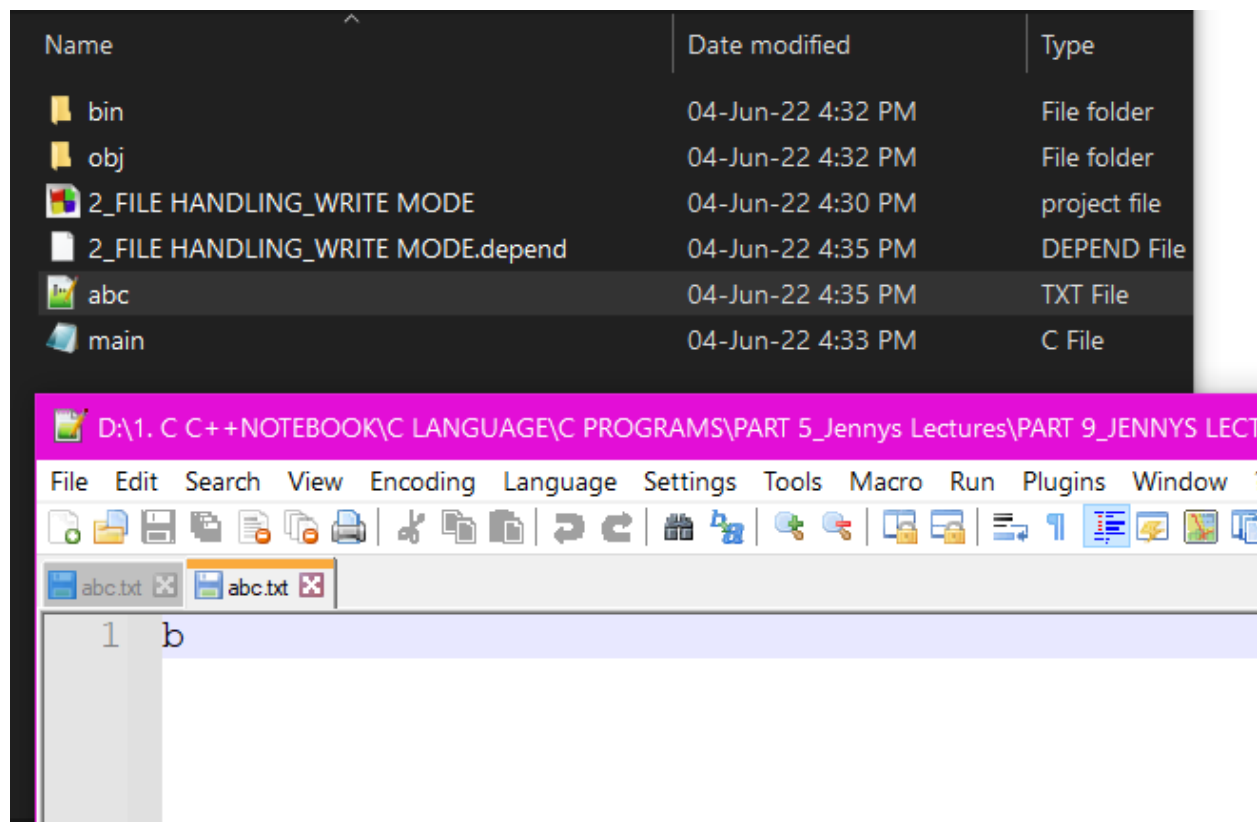
abc.txt   abc.txt

```
1    a
```

```c
#include <stdio.h>
#include <stdlib.h>
/** 2-FILE HANDLING-WRITE MODE **/
/** WRITING CHARACTER INTO A FILE **/
int main()
{
    FILE *fp;

    char ch='b';
    //printf("Enter the value of ch: ");
    //scanf("%c",&ch);
    fp=fopen("abc.txt","w");

    fputc(ch,fp);

    fclose(fp);

    return 0;
}
```

```
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Process returned 0 (0x0)    execution time : 0.047 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:32 PM	File folder
obj	04-Jun-22 4:32 PM	File folder
2_FILE HANDLING_WRITE MODE	04-Jun-22 4:30 PM	project file
2_FILE HANDLING_WRITE MODE.depend	04-Jun-22 4:35 PM	DEPEND File
abc	04-Jun-22 4:35 PM	TXT File
main	04-Jun-22 4:33 PM	C File

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File   Edit   Search   View   Encoding   Language   Settings   Tools   Macro   Run   Plugins   Window

abc.txt   abc.txt

```
1   b
```

```c
1   #include <stdio.h>
2   #include <stdlib.h>
3   /** 2-FILE HANDLING-WRITE MODE **/
4   /** WRITING CHARACTER INTO A FILE **/
5   int main()
6   {
7       FILE *fp;
8
9       //char ch='b';
10
11      //printf("Enter the value of ch: ");
12      //scanf("%c",&ch);
13
14
15      fp=fopen("abc.txt","w");
16
17      fputc('c',fp);
18
19      fclose(fp);
20
21      return 0;
22  }
23
```

```
Process returned 0 (0x0)    execution time : 0.025 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:32 PM	File folder
obj	04-Jun-22 4:32 PM	File folder
2_FILE HANDLING_WRITE MODE	04-Jun-22 4:30 PM	project file
2_FILE HANDLING_WRITE MODE.depend	04-Jun-22 4:37 PM	DEPEND File
abc	04-Jun-22 4:37 PM	TXT File
main	04-Jun-22 4:36 PM	C File

File   Edit   Search   View   Encoding   Language   Settings   Tools   Macro   Run   Plugins   Window   ?
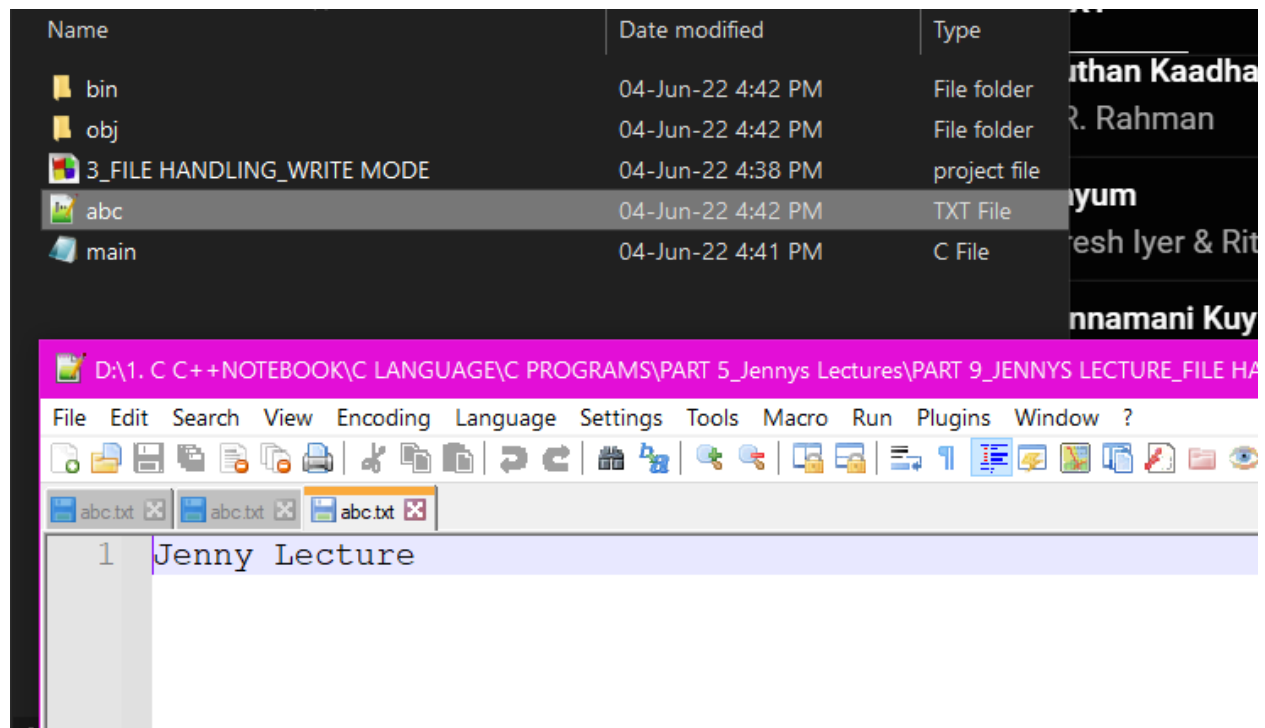
abc.txt   abc.txt

```
1    c
```

```c
#include <stdio.h>
#include <stdlib.h>
/** 3-FILE HANDLING-WRITE MODE **/
/** WRITING STRING INTO A FILE **/
int main()
{
    FILE *fp;

    char name[50]="Jenny Lecture";

    fp=fopen("abc.txt","w");

    fputs(name,fp);

    fclose(fp);

    return 0;
}
```

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```
Process returned 0 (0x0)   execution time : 0.041 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:42 PM	File folder
obj	04-Jun-22 4:42 PM	File folder
3_FILE HANDLING_WRITE MODE	04-Jun-22 4:38 PM	project file
abc	04-Jun-22 4:42 PM	TXT File
main	04-Jun-22 4:41 PM	C File

Name	Date modified	Type
bin	04-Jun-22 4:42 PM	File folder
obj	04-Jun-22 4:42 PM	File folder
3_FILE HANDLING_WRITE MODE	04-Jun-22 4:38 PM	project file
abc	04-Jun-22 4:42 PM	TXT File
main	04-Jun-22 4:41 PM	C File

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abc.txt   abc.txt   abc.txt

```
1   Jenny Lecture
```

```c
1    #include <stdio.h>
2    #include <stdlib.h>
3    /** 3-FILE HANDLING-WRITE MODE **/
4    /** WRITING STRING INTO A FILE **/
5    int main()
6    {
7        FILE *fp;
8
9        //char name[50]="Jenny Lecture";
10
11       char name[50];
12       printf("Enter the name: ");
13       gets(name);
14
15       fp=fopen("abc.txt","w");
16
17       fputs(name,fp);
18
19       fclose(fp);
20
21       return 0;
22   }
23
```

```
Enter the name: Jayanthi Sivaranjani

Process returned 0 (0x0)    execution time : 9.027 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:42 PM	File folder
obj	04-Jun-22 4:42 PM	File folder
3_FILE HANDLING_WRITE MODE	04-Jun-22 4:38 PM	project file
abc	04-Jun-22 4:45 PM	TXT File
main	04-Jun-22 4:45 PM	C File

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abc.txt   abc.txt   abc.txt

```
1    Jayanthi Sivaranjani
```

```c
#include <stdio.h>
#include <stdlib.h>
/** 3-FILE HANDLING-WRITE MODE **/
/** WRITING STRING INTO A FILE **/
int main()
{
    FILE *fp;

    //char name[50]="Jenny Lecture";

    //char name[50];
    //printf("Enter the name: ");
    //gets(name);

    fp=fopen("abc.txt","w");

    fputs("Hello World",fp);

    fclose(fp);

    return 0;
}
```

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Process returned 0 (0x0)   execution time : 0.011 s
Press any key to continue.

Name	Date modified	Type
bin	04-Jun-22 4:42 PM	File folder
obj	04-Jun-22 4:42 PM	File folder
3_FILE HANDLING_WRITE MODE	04-Jun-22 4:38 PM	project file
3_FILE HANDLING_WRITE MODE.depend	04-Jun-22 4:47 PM	DEPEND File
abc	04-Jun-22 4:47 PM	TXT File
main	04-Jun-22 4:47 PM	C File

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abc.txt abc.txt abc.txt

```
1    Hello World
```

```c
1    #include <stdio.h>
2    #include <stdlib.h>
3    /** 4-FILE HANDLING-WRITE MODE **/
4    /** WRITING STRING CHARACTER BY CHARACTER INTO A FILE **/
5    int main()
6    {
7        FILE *fp;
8        int i;
9        char name[50]="Jenny's Lecture";
10       fp=fopen("abc.txt","w");
11
12
13       for(i=0;i<strlen(name);i++)
14       {
15         fputc(name[i],fp);
16       }
17
18       fclose(fp);
19       return 0;
20   }
21
```
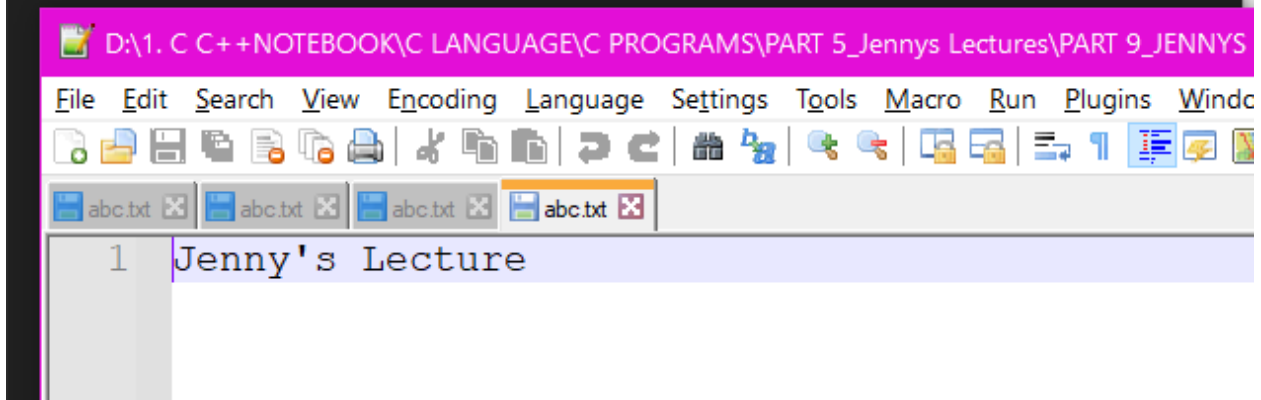
```
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Process returned 0 (0x0)     execution time : 0.015 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 4:53 PM	File folder
obj	04-Jun-22 4:53 PM	File folder
4_FILE HANDLING_WRITE MODE	04-Jun-22 4:49 PM	project file
4_FILE HANDLING_WRITE MODE.depend	04-Jun-22 4:53 PM	DEPEND File
abc	04-Jun-22 4:54 PM	TXT File
main	04-Jun-22 4:53 PM	C File

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abc.txt abc.txt abc.txt abc.txt

```
1    Jenny's Lecture
```

```c
#include <stdio.h>
#include <stdlib.h>
/** 5-FILE HANDLING-WRITE MODE **/
/** WRITING ALL TYPES OF DATA INTO A FILE **/
/** USING FORMATTED FILE OUTPUT FUNCTION **/
int main()
{
    FILE *fp;
    int number=10;
    char letter='A';
    char name[50]="Jenny's Lecture";

    fp=fopen("abc.txt","w");

    fprintf(fp,"Number:%d\nLetter:%c\nName:%s",number,letter,name);

    fclose(fp);
    return 0;

}
```

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```
Process returned 0 (0x0)    execution time : 0.016 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 5:08 PM	File folder
obj	04-Jun-22 5:08 PM	File folder
5_FILE HANDLING_WRITE MODE	04-Jun-22 4:56 PM	project file
5_FILE HANDLING_WRITE MODE.depend	04-Jun-22 5:26 PM	DEPEND File
abc	04-Jun-22 5:26 PM	TXT File
main	04-Jun-22 5:26 PM	C File

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abc.txt   abc.txt   abc.txt   abc.txt   abc.txt

```
1   Number:10
2   Letter:A
3   Name:Jenny's Lecture
```

```c
#include <stdio.h>
#include <stdlib.h>
/** 6-FILE HANDLING-WRITE MODE **/
/** WRITING ALL TYPES OF DATA INTO A FILE **/
/** USING FORMATTED FILE OUTPUT FUNCTION **/
int main()
{
    FILE *fp;
    fp=fopen("abc.txt","w");

    int number;
    char letter, name[20];
    printf("Enter the number,Letter,Name: ");
    scanf("%d %c %s",&number,&letter,&name);

    fprintf(fp,"Number:%d\nLetter:%c\nName:%s\n",number,letter,name);


    fclose(fp);
    return 0;
}
```

Name	Date modified	Type
bin	04-Jun-22 5:30 PM	File folder
obj	04-Jun-22 5:30 PM	File folder
6_FILE HANDLING_WRITE MODE	04-Jun-22 5:28 PM	project file
6_FILE HANDLING_WRITE MODE.depend	04-Jun-22 5:59 PM	DEPEND File
abc	04-Jun-22 5:59 PM	TXT File
main	04-Jun-22 6:00 PM	C File

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abc.txt   abc.txt   abc.txt   abc.txt   abc.txt   abc.txt

```
1    Number:10
2    Letter:A
3    Name:Jayanthi
4
```

```c
#include <stdlib.h>
/** 7-FILE HANDLING-WRITE MODE **/
/** WRITING ALL TYPES OF DATA INTO A FILE **/
/** USING FORMATTED FILE OUTPUT FUNCTION **/
int main()
{
    FILE *fp;
    int a;
    char b;
    printf("Enter number and character:\n");
    scanf("%d %c",&a,&b);

    char name[20];
    printf("Enter name:");
    fflush(stdin); //sometimes gets() wont work,at that time use fflush(stdin)
    gets(name);

    fp=fopen("file.txt","w");
    fprintf(fp,"Number=%d\nCharacter=%c\nName=%s",a,b,name);

    fclose(fp); getch();
    //NOTE:
    //In C++, we use getlin(cin,name); here also this wont work,
    //so use fflush(stdin) which common for both C and C++

}
```

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```
Enter number and character:
50
G
Enter name:Jenny's Lecture

Process returned 0 (0x0)   execution time : 20.383 s
Press any key to continue.
```

Name	Date modified	Type
bin	04-Jun-22 8:05 PM	File folder
obj	04-Jun-22 8:05 PM	File folder
7_FILE HANDLING_WRITE MODE	04-Jun-22 7:56 PM	project file
7_FILE HANDLING_WRITE MODE.depend	04-Jun-22 8:27 PM	DEPEND File
file	04-Jun-22 8:43 PM	TXT File
main	04-Jun-22 8:43 PM	C File

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abc.txt   abc.txt   abc.txt   abc.txt   abc.txt   abc.txt   file.txt

```
1  Number=50
2  Character=G
3  Name=Jenny's Lecture
```