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Static functions in C

Prerequisite : [Static variables in C](#)

In C, functions are global by default. The “*static*” keyword before a function name makes it static. For example, below function *fun()* is static.

```
static int fun(void)
{
    printf("I am a static function ");
}
```

[Run on IDE](#)

Unlike global functions in C, access to static functions is restricted to the file where they are declared. Therefore, when we want to restrict access to functions, we make them static. Another reason for making functions static can be reuse of the same function name in other files.

For example, if we store following program in one file *file1.c*

```
/* Inside file1.c */
static void fun1(void)
{
```

```
} puts("fun1 called");
```

[Run on IDE](#)

And store following program in another file *file2.c*

```
/* Iinside file2.c */
int main(void)
{
    fun1();
    getchar();
    return 0;
}
```

[Run on IDE](#)

Now, if we compile the above code with command “*gcc file2.c file1.c*”, we get the error “*undefined reference to `fun1`*”. This is because *fun1()* is declared *static* in *file1.c* and cannot be used in *file2.c*.

Please write comments if you find anything incorrect in the above article, or want to share more information about static functions in C.

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