

Program to Display "Hello, World!"

```
#include <stdio.h>
int main()
{
    // printf() displays the string inside quotation
    printf("Hello, World!");
    return 0;
}
```

Output

Hello, World!

How "Hello, World!" program works?

- The `#include` is a preprocessor command that tells the compiler to include the contents of `stdio.h` (standard input and output) file in the program.
- The `stdio.h` file contains functions such as `scanf()` and `printf()` to take input and display output respectively.
- If you use the `printf()` function without writing `#include <stdio.h>`, the program will not compile.
- The execution of a C program starts from the `main()` function.
- `printf()` is a library function to send formatted output to the screen. In this program, `printf()` displays `Hello, World!` text on the screen.
- The `return 0;` statement is the "**Exit status**" of the program. In simple terms, the program ends with this statement.

To create and execute a C program you require minimum two software's.

1. A text editor (such as Notepad, Notepad++, Gedit, TextEdit, Sublime etc.)
2. C compiler (Optionally CodeBlocks IDE with GCC C compiler).

The GCC C compiler

Compiler is a program that checks source code file for syntactical errors and translates the source file to low-level machine code, if it is error free.

There are many C compilers available such as *GCC C*, *Borland Turbo C*, *Visual C*, *Quick C* etc. In this entire series of C tutorial, I will work with GCC C compiler.

The **GNU Compiler Collection**(GCC) includes front ends for C, C++, Objective-C, Fortran, Ada, Go, and D, as well as libraries for these languages.

GCC C compiler is reliable, efficient and popular C/C++ compiler among developers. It is open source and available to download for all most all operating systems. It is pre-installed C compiler in all UNIX based operating systems. To know more [click here](#).

What is GNU?

GNU is a free software collection that can be used as an operating system or in parts with other operating systems. The name GNU is a recursive acronym for "GNU's Not Unix!". It was created by Richard Stallman in 1983. The goal of the project was to bring a completely free software operating system into existence. The philosophy behind the project was to make computer users free to study the source code of the software they use, share software with other people, modify the behavior of software, and publish their modified versions of the software. The project is pronounced as one syllable with a hard g.