

The essential of a C program

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Editing

- Edit
 - Use Emacs
 - File should be ended with .c
 - E.g. program1.c
 - Case sensitive
 - PRINT vs. print
 - Layout is not important
 - Extra white space does not mean anything

First Program

```
#include <stdio.h> Using predefined C libraries
main() A c program always has a "main"
{ Starting main
    printf("My First Program.");
} Ending main
```

Argument for printf function Inside ()

Predefined function from <stdio.h> library
Printing to the output

Compiling & Running

- gcc <filename>
 - Generates executable file called a.out
 - Run a.out
 - ./a.out
- gcc <filename> -o <output>
 - Generates the executable output with the given name
 - E.g.
 - \$ gcc program1.c -O program.out
 - ./program.out

Second Program

```
#include <stdio.h>
main()
{
    printf("My First program.\n");
    printf("It is wonderful\n");
}
```

Goes to next line

Third Program

```
#include <stdio.h>
main()
{
    int sum; Define a variable

    sum = 10 + 20; Assigning value to the variable
    printf("The sum of 10 and 20 is %d\n",sum);
}
```

Replacing a variable in the printing output