Simple C

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Introduction:

In this book you will learn the basics of the C programming language. Once you have completed the book you should now how to make basic projects and even some more complex ones too.

History of the C programming language:

C programming language was first introduced by Denis Ritchie at the AT &T's Bell Laboratories USA in 1972 and was implemented for the first time in DEC PDP-11 computer.

C evolved from two previous programming languages BCPL (developed by Martin Richards) and B (developed by Ken Thompson). Denise Ritchie used the concepts of BCPL and B to develop C and added data typing and some other powerful features.

What you need and what am I using:

you will need a C compiler, there are many C compiler. I'm using gcc, but you can really use any other, the syntax may be different though. You will need a host system, you can really use any main stream operating system like Linux or Windows. I am using Linux, but if your on mac, it should not be to different.

So to get started I'm going to make a small hello world program and then explain line by line what it does.
So are hello world project will look like this

```
#include <stdio.h>
int main(void){
      printf("Hello World");
      return 0;
}
```

Now let me explain this code.
On the first line we are telling the compiler to include the code of the standard library header file **stdio.h**. Header files normally contain function declaration, macro's and data types. You will have to include the header before using the code inside of the header file. We will get to functions and all that later in the book.
The second line is the start of defining a function. We first specify the type of the function, this function we have here is a **integer**, so this means we have to return a **integer**. The second part is the name of the function, are function is named main. It must be named main so it will run. All programs will have to have a main function to be ran. The **argument** (Arguments are between the two parentheses) is of type **void** (This really means none, so the argument is of type none). The third line we print to the screen. As you can see in between the double quotation marks, there is the text Hello World. This text is what we want to print to the screen. The fourth line is means we want to return the value **0**. You should always return from a function.