C Syntax

Syntax

You have already seen the following code a couple of times in the first chapters. Let's break it down to understand it better:

Example

```c
#include <stdio.h>

int main() {
  printf("Hello World!");
  return 0;
}
```

Example explained

Line 1: `#include <stdio.h>` is a **header file library** that lets us work with input and output functions, such as `printf()` (used in line 4). Header files add functionality to C programs.

Don't worry if you don't understand how `#include <stdio.h>` works. Just think of it as something that (almost) always appears in your program.

Line 2: A blank line. C ignores white space. But we use it to make the code more readable.

Line 3: Another thing that always appear in a C program, is `main()`. This is called a **function**. Any code inside its curly brackets `{}` will be executed.

Line 4: `printf()` is a **function** used to output/print text to the screen. In our example it will output "Hello World!".

Note that: Every C statement ends with a semicolon `;`

Note: The body of `int main()` could also been written as:
`int main(){printf("Hello World!");return 0;}`

Remember: The compiler ignores white spaces. However, multiple lines makes the code more readable.

Line 5: `return 0` ends the `main()` function.

Line 6: Do not forget to add the closing curly bracket } to actually end the main function.