C++ Syntax / រូបមន្ត

Let's break up the following code to understand it better:

Example

#include <iostream>  
using namespace std;  
int main() {  
  cout << "Hello World!";  
  return 0;  
}

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_helloworld)

Example explained

Line 1: #include <iostream> is a header file library that lets us work with input and output objects, such as cout (used in line 5). Header files add functionality to C++ programs.

Line 2: using namespace std means that we can use names for objects and variables from the standard library.

Don't worry if you don't understand how #include <iostream> and using namespace std works. Just think of it as something that (almost) always appears in your program.

Line 3: A blank line. C++ ignores white space. But we use it to make the code more readable.

Line 4: Another thing that always appear in a C++ program, is int main(). This is called a function. Any code inside its curly brackets {} will be executed.

Line 5: cout (pronounced "see-out") is an object used together with the insertion operator (<<) to output/print text. In our example it will output "Hello World!".

Note: Every C++ statement ends with a semicolon ;.

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

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

Line 6: return 0 ends the main function.

Line 7: Do not forget to add the closing curly bracket } to actually end the main function.

Omitting Namespace

You might see some C++ programs that runs without the standard namespace library. The using namespace std line can be omitted and replaced with the std keyword, followed by the :: operator for some objects:

Example

#include <iostream>  
int main() {  
  std::cout << "Hello World!";  
  return 0;  
}

C++ Output (Print Text)

The cout object, together with the << operator, is used to output values/print text:

Example

#include <iostream>  
using namespace std;  
int main() {  
  cout << "Hello World!";  
  return 0;  
}

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_output)

You can add as many cout objects as you want. However, note that it does not insert a new line at the end of the output:

Example

#include <iostream>  
using namespace std;  
  
int main() {  
  cout << "Hello World!";  
  cout << "I am learning C++";  
  return 0;  
}

## New Lines

To insert a new line, you can use the \n character:

### Example

#include <iostream>  
using namespace std;  
  
int main() {  
  cout << "Hello World! \n";  
  cout << "I am learning C++";  
  return 0;  
}

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_output3)