C++ is a compiled language  
humans can read C++ but computers can’t read it so we need something that can convert the C++ code to the code that can computer understand, and that thing called compiler and the operation of transforming the code is called compilation.

C++ is also known with linking:

Linking is getting a bunch o compiled code to one executable file, and that the executable file is what the user get and use.

C++ introduced 2 concepts:

1. Object Oriented Programming (OOP).
   1. Is a way to structure our code in things called classes.
2. Generic Programming.
   1. With Generic Programming we able to use or create structure that work well with different types of data.
   2. It looks like and array or array list we call it in C++ “Vectors” and also you can call it container.

C and C++ are two separated Programming Languages.

C++ came after C and almost everything in C is in C++.

You can think in C++ like a superset of C.

How to start writing C++ on windows.

You can follow this video to full setup of c++ using MinGW and configure it on VS Code <https://www.youtube.com/watch?v=DIw02CaEusY>

C++ Files extensions:

1. .c
2. .cc
3. .cpp
4. .c++
5. .cp
6. .cxx

Note the .C - case matters in GCC, .c is a C file whereas .C is a C++ file (if you let the compiler decide what it is compiling that is).

How to compile c++ file:

1. Open terminal.
2. Write g++ path/file.ext  
   it will generate new file commonly called “a.out/a.exe”

How to run the app

1. Open terminal
2. Write the file name with the ext for the extract file

How to write function:

1. The type of the output of the function
2. Function name
3. Function body.
4. Function may be has inputs and must return something that thing is called output
5. The input is called parameters.
6. The output is called with return keyword.
7. In the function body we write statements.

You can think with the function as an machine that does specific job.

Example:

#include <iostream>

int main(){

    std::cout << "Hello World\n";

    return 0;

}

In the example before std::cout we use it to write in the console.

Std::cout be available only when include it in C++ program when including iostream

Cout is defined in iostream

Notes:

1. Each statements must ends with semicolon “;”
2. Std is an acronym to standard
3. Iostream is acronym to input output stream