

NOI 2020 C++ Basics Course Content

Note 1

P.S. This course is designed assuming you have no prior experience in programming.

Introduction

What is a programming language?

A programming language is a language used to tell computers what to do.

What is a compiler?

Computers understand machine language. Programmers like us understand languages like english. So the code has to be in english to make it possible and convenient for programmers to create programs. But since the computers don't understand english there has to be a translator to convert those codes into machine language so that the machine can understand the instructions we are giving it.

This is the function of a compiler. The compiler converts the code we write in english to machine language. There are different types of compilers for different languages.

What is an IDE?

Writing code can be done in a simple text editor like notepad. But this offers no help for the programmer to identify keywords, errors in syntax, to compile and run, etc.

IDEs are text editing softwares developed to assist the developers in coding. These will offer keyword recognition, syntax error recognition and many more supportive functions for the coders. Some of the popular IDEs for C++ are codeblocks and DevC++.

What is C++?

C++ is a programming language..

Setting up the environment

Install a compiler and an IDE.

P.S. Installing only one of the following IDEs is enough

CodeBlocks

Download the setup from the following link and install

This will install both the compiler and the IDE

<https://sourceforge.net/projects/codeblocks/files/Binaries/17.12/Windows/codeblocks-17.12mingw-setup.exe/download>

Follow the following link for a video tutorial on how to do the installation

<https://www.youtube.com/watch?v=IQITENvMilE>

DevC++

Download the setup from the following link and install.

This will install both compiler and the IDE

<https://sourceforge.net/projects/orwelldevcpp/>

Follow the following link for a video tutorial on how to do the installation

<https://www.youtube.com/watch?v=IM5-lostsak>