

## Chapter 2

### Write Your First Program in C++

This is the 2nd lecture of our DSA series. We will see how a program runs and what does each line mean in this lecture. This is how the compilation process work So it is compiler which makes it possible for us to run a source code. Coding Ninjas has supported us in providing this amazing DSA course to you. Courses are available in both Hindi and English. you need an IDE to write, run and execute a code. There are many IDEs out there - CodeBlocks, VsCode and many more - which you don't even need to install Replit is one of them. You can directly create a C++ there and run it using Replit. In C++, many namespaces are there which have cout functions in them, so if we want to use cout , we have to add this file to our code. We use these signs to output the result into standard namespace. If you will use >> by mistake by mistake, then it will give you compilation error so we use this operator to display output.

We are going to talk about data types and variables. Whenever you have to store any information or data in the memory. You have to mention what type of data it is and how much memory it will take. For eg- `int a = 5`, a is a variable in memory which is of int type and it has value 5 in it. We have certain rules which we have to follow when we are giving names. There is a function named `sizeof` , which will tell you about the space being used by any variable. In memory, first 29 bits will have 0, and last 3 bits will be 101, so in memory the first 29 bit will have 0 and the last 3bits will have 101. We have a way to store multiple characters but we will see that in upcoming lectures. In c++, all the characters are mapped to some ASCII value in memory. We will just