Local Variable in C++

- A **local variable** is defined, **initial values set** and consumed within a function or method, or block.
- These variables gets life only when the function where the variables exits is executed and gets destroyed automatically when the program control passes to next function.
- The program returns an error if a local variable is referred outside its function or method or block.

Syntax

- It basically consist of the definition and declaration of the local variable.

Local Variable Definition

- Local variable definition in C++ involves:

1. Local Variable Name.
2. Data Type.
3. Initial Value.

Note:

- Initial value can be part of the definition statement or it can be separated statement.

- Any definition statement should be terminated with a semi-colon otherwise it will result in an error.

- Multiple variables with the same data type can be clubbed together in a single statement within a function.

Syntax:

data-type local-variable-name = initial-value;
int rate = 400; char empname = 'XYAZ', option = '1';
rate, empname, option are local variable names.
int, char are data types.
400, 'XYAZ', '1' are initial values.

Local Variable name

- Certain rules will have to be adhered to in naming a local variable:

Some of them as follow as such:

- Should never start with a numeric characters.
- Should always start with alpha or "_" underscore.
- It is case sensitive and a name with capital letters and lowercase are considered as two different variables.
- Should never contain spaces, graphics symbols and special characters.
- No duplicated variable names within a function or method or block.

Data Type

⇨ It specifies the type of data the local variable will hold during the program execution; integer, characters are some familiar types.

- Data types are broadly classified into three groups

Group	Data Types
Built-in	Str (Alphanumeric), Int (Integers). Float (Floating point single precision), Wide char, Boolean (True or False), Void (No value returned)
User-Defined	Enum, Union, Structure.
Derived in Program	Pointer, Function, Array.

Initial value

Value defined to hold at the beginning of the program execution and it should be same as the data type defined.

Local Variable Declaration

Definition of a variable w

Value defined to hold at the beginning of program execution and it should be the same as the data type defined