**C++**

* C++ is an object- oriented language where as C is a procedural programming language.
* In procedural language we only concentrate on writing the code and there is no security to data where as in object- oriented language there will be a security to data.
* cin -> scanf and c-out -> printf
* c is a subset of c++.
* #include <iostream>  
  using namespace std;  
    
  int main() {  
    cout << "Hello World!";  
    return 0;  
  }
* #include <iostream> is header file library used for input and output i.e., cin and cout.
* Using name std; means that we can use names for objects and variables from the standard library.
* **Object- oriented:**

**1)Encapsulation**: Binding of data along with functions that manipulate that data is called encapsulation.

-> access specifiers:

Private – private members cannot be accessed outside the class.

public – public members can be accessed outside the class.

protected

-> syntax for class:

Class classname

{

Data

Functions

};

**-> Constructors:**

1)Are special methods of a class that are used to initialise the objects of class and they are called when object is created.

2)These constructors have same name as class name.

3)There are 3 types i.e., default, parameterized constructor, copy constructor.

- >Creating objects:

1)using new keyword we can create objects.

classname obj=new classname();

**2)Inheritance:** creating a new-classes from existing classes with additional features.

**Syntax:**

Class DervideCName : access-level BaseCname

* **This keyword:**
* This keyword is used in the member methods of class to refers to calling objects.