**Global Class and Local Class**

**In C++, the local class is a class which is declared inside any function and the global class is a class which is declared outside of any function.**

* Global class: Global class is a class that is defined outside of any function and it can be accessed everywhere of the program.

#include<iostream>

Class X //Global class type X

{

};

X Ob1; // Global Object Ob1 of type X

int main()

{

X Ob2; // Local Object Ob2 of type X

}

void func1(void)

{

X Ob3; //Local Object Ob3 of type X

}

* Local class: Local class is a class that is defined inside of any function and can be accessed only in the body of that function. It cannot be accessed by the outside of the function.

#include<iostream.h>

int main()

{

class Y //Local class type Y

{

};

Y Ob1; //Local Object Ob1 of type Y

}

void func1(void)

{

Y Ob2; //Invalid. Y type is not available in func1(). It is only available in main() that has defined it.

}

Global Object

An object is said to be a global object if it is declared outside all the function bodies and it means that this object is globally available to all functions in the program i.e., this object can be used anywhere in the program.

The following code fragment illustrates it:

#include<iostream>

class X // Global class type

{

public:

int a;

void fc(void);

};

X Ob1; //Global Object

int main()

{

Ob1.a=10; // Valid. Ob1 is globally available

Ob1.fc(); // valid

}

void func1(void)

{

Ob1.a=20; //valid. Ob1 is globally available

Ob1.fc() //valid

}

Local Object:

An object is said to be a local object if it is declared with in a function, which means that this object is locally available to the function that declares it and it cannot be used outside the function declaring it. Consider the following code fragment:

#include<iostream>

Class X //Global class

{

Public: int a;

Void fc(void);

};

int main()

{

class Y //Local class

{

public: int I;

void afun(void);

};

X Ob1; //Local Object Ob1 of global class type X

Y Ob2; //Local object Ob2 of local class type Y

Ob1.a=5; //valid

Ob1.fc(); //valid

Ob2.i=15; //valid

Ob2.afun(); //valid

}