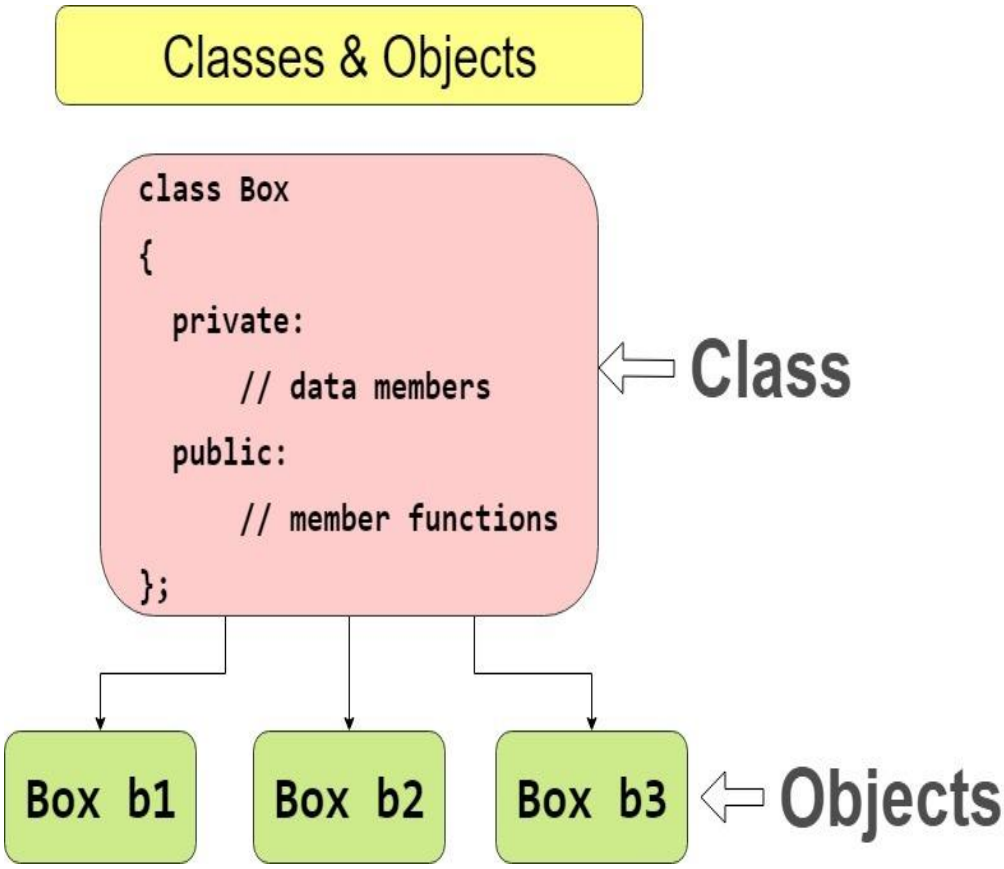
CLASSES IN C++



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INTRODUCTION: Class in C^{++} may be defined as a collection of different data types and function operating on them under one name. It also may be defined as a collection of object of similar type. The entire set of data and code of an object can be made user defined data type with help of class. Classes are user defined data type and behave as built in type of programming language. For eg. furniture can be considered as a class and chair and tables as objects.

SPECIFING CLASS: A class is a method to bind data and associated function together. It allows the data and function to be hidden if necessary from external use. Class specification has two parts-

CLASS DECLARATION: The class declaration defines the scope and type of its member and declaration is don as following-

Class name-

{

private:

variable declaration;

function declaration;

public:

variable declaration;

function declaration;

];

The keyword class is followed by class name and body of class is terminated by braces and is terminated by semicolon.

CLASS FUNCTION DECLARATION: There are two types of members in a class-

Private: The keyword is followed by colon and members which are declared as private and can be accessed from within the class and by using this declaration, we can hide data. Protected members on inheritance get converted to private members.

Public: The keyword is followed by colon and member can be accessed from both inside and outside the class.

MEMBER FUNCTION: The function declared inside the class are known as member function. These may be private or public. Only a member function can access private data members and private function. A member function can call another member function directly.

Member function declaration: Member function can be defined inside or outside class-

Inside Declaration-

Class X

[

Private:

Int a;

Public:

Void read data()

{

Cin>>a;

```
}
Void write data ()
{
Cout <<a;
}
};
```

Outside Declaration-

```
Class X
{
Private:
Int a;
Public:
void read data ();
void write data ();
};
Void x : : read data ()
{
Cin>> a;
}
Void x : : write data ()
{
```

```
Cout << a;
}
```