POINTER TO C++ CLASSES

A pointer to a C++ class is done exactly the same way as a pointer to a structure and to access members of a pointer to a class you use the member access operator **->** operator, just as you do with pointers to structures. Also as with all pointers, you must initialize the pointer before using it.

Let us try the following example to understand the concept of pointer to a class:

```
#include <iostream>

using namespace std;

class Box
{
   public:
      // Constructor definition
      Box(double l=2.0, double b=2.0, double h=2.0)
      {
         cout <<"Constructor called." << endl;
         length = l;
         breadth = b;
         height = h;
      }
      double Volume()
      {
         return length * breadth * height;
      }
   private:
      double length;     // Length of a box
      double breadth;    // Breadth of a box
      double height;     // Height of a box
};

int main(void)
{
   Box Box1(3.3, 1.2, 1.5);    // Declare box1
   Box Box2(8.5, 6.0, 2.0);    // Declare box2
   Box *ptrBox;                // Declare pointer to a class.

   // Save the address of first object
   ptrBox = &Box1;

   // Now try to access a member using member access operator
   cout << "Volume of Box1: " << ptrBox->Volume() << endl;

   // Save the address of first object
   ptrBox = &Box2;

   // Now try to access a member using member access operator
   cout << "Volume of Box2: " << ptrBox->Volume() << endl;

   return 0;
}
```

When the above code is compiled and executed, it produces the following result:

```
Constructor called.
Constructor called.
Volume of Box1: 5.94
Volume of Box2: 102
```