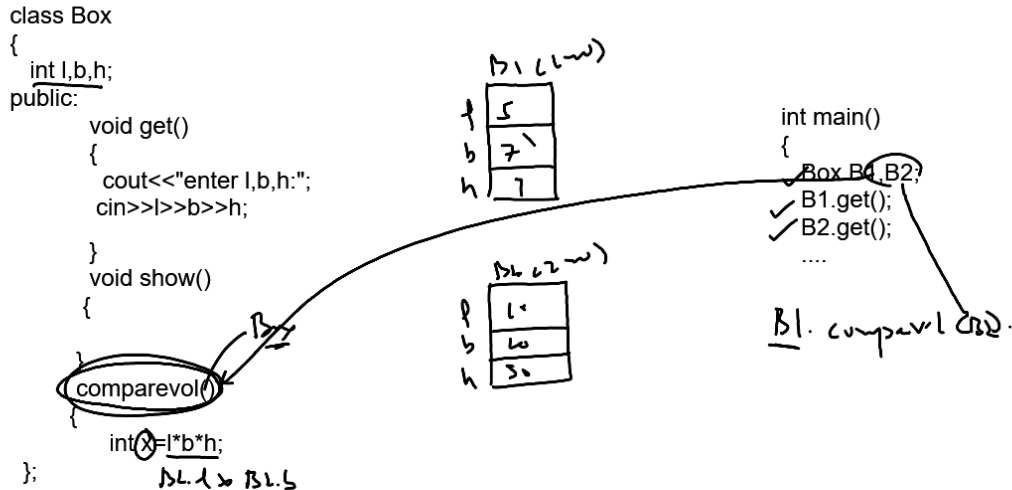


Passing Object As Argument To Member Functions



Just like we can pass variables as argument to member functions , similarly we also can pass objects as argument to member functions.

This usually happens when we have a member function which has to operate on multiple object at the same time.

For ex: Suppose we have a class called Box with 3 data members called l,b,h and we have created 2 objects of the Box class called B1 and B2 in the function main(). Now we want to compare the volumes of the objects B1 and B2.

To do this we will have to define a member function called compareVolume() in the Box class. Now one of the object i.e. B1 will call this member function while the second object i.e. B2 will have to be passed as argument, because for comparison both the objects must be available in the member function compareVolume() at the same time.

So in general we can say that if a member function needs to work on 'n' objects at the same time then it requires 'n-1' objects as argument.

Also just like we have 3 ways of passing variables as argument , same 3 ways are also present for passing objects as argument and they are:

1. Passing object by value
2. Passing object by address
3. Passing object by reference

```
#include <iostream>
using namespace std;
class Box
```

```
{
    int l,b,h;
public:
    void get()
    {
        cout<<"Enter l,b,h:";
        cin>>l>>b>>h;
    }
    void show()
    {
        cout<<l<<" "<<b<<" "<<h<<endl;
    }
    int compareVol(Box);
};
int Box::compareVol(Box P)
{
    int x=l*b*h;
    int y=P.l*P.b*P.h;
    if(x>y)
        return 1;
    else if(y>x)
        return -1;
    else
        return 0;
}
```

B1 (l w h)

l	10
b	20
h	30

B2 (l w h)

l	5
b	7
h	9

P

l	5
b	7
h	9

Vol of B1
Vol of P/B2

```
int main()
{
    ✓ Box B1,B2;
    ✓ B1.get();
    ✓ B2.get();
    ✓ B1.show(); 10 20 30
    ✓ B2.show(); 5 7 9
    int result;
    result=B1.compareVol(B2);
    if(result==1)
        cout<<"Vol of B1 is greater";
    else if(result==-1)
        cout<<"Vol of B2 is greater";
    else
        cout<<"Vols are equal";
    return 0;
}
```

STYLE	Memory	Fn Call
① Pass By Value	3GB	11

