

**Practical: 17** Write a C++ program to illustrate '*this*' pointer and pointers to derived classes

```
#include<iostream>

using namespace std;

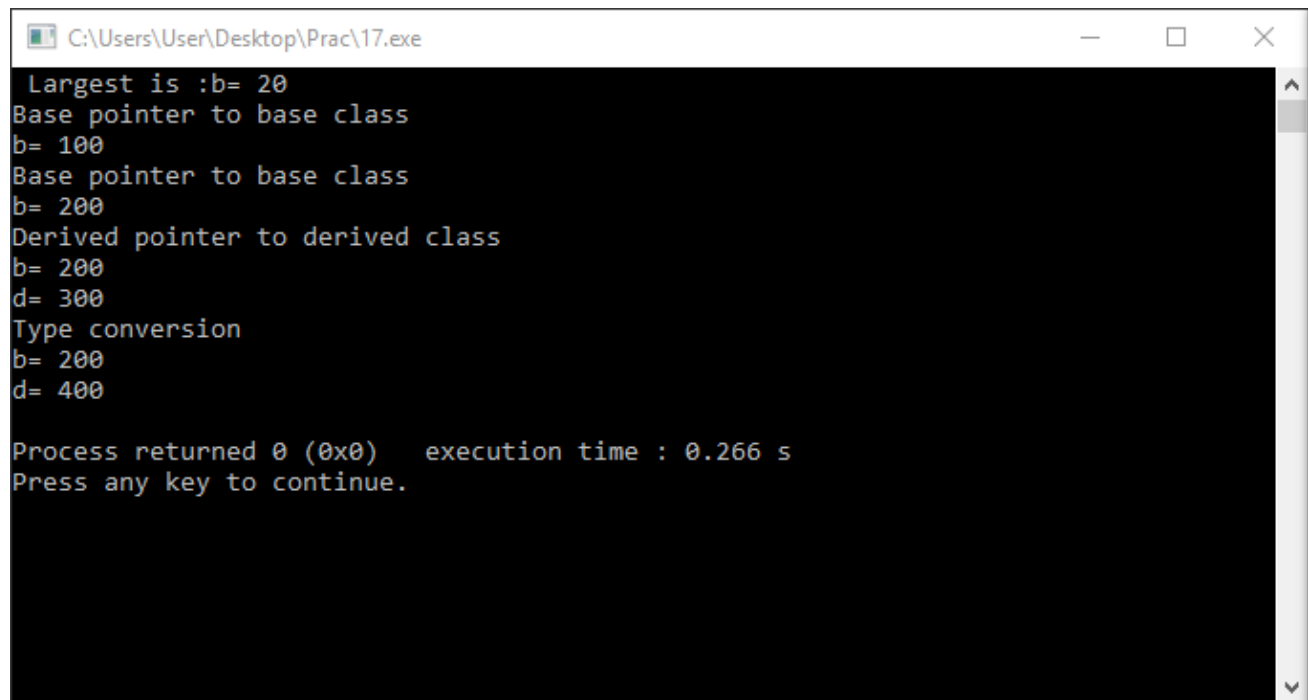
class BC
{
public:
    int b;
    void show()
    {   cout<<"b= "<<b<<endl;   }
    BC findlarge(BC obj)
    {
        if(b>obj.b)
            return *this;
        else
            return obj;
    }
};

class DC:public BC
{
public:
    int d;
    void show()
    {
        cout<<"b= "<<b<<endl;
        cout<<"d= "<<d<<endl;
    }
};
```

```
    }  
};  
  
int main()  
{  
    BC b1,b2;  
    b1.b=10;  
    b2.b=20;  
    BC Large=b1.findlarge(b2);  
    cout<<"\n Largest is :";  
    Large.show();  
    BC *bptr;  
    BC base;  
    bptr=&base;  
    bptr->b=100;  
    cout<<"Base pointer to base class\n";  
    bptr->show();  
    DC derived;  
    bptr=&derived;  
    bptr->b=200;  
    cout<<"Base pointer to base class\n";  
    bptr->show();  
    DC *dptr;  
    dptr=&derived;  
    dptr->d=300;  
    cout<<"Derived pointer to derived class\n";  
    dptr->show();  
    ((DC*)bptr)->d=400;
```

```
    cout<<"Type conversion\n";  
    ((DC*)bptr)->show();  
    return 0;  
}
```

### Output 17



```
C:\Users\User\Desktop\Prac\17.exe  
Largest is :b= 20  
Base pointer to base class  
b= 100  
Base pointer to base class  
b= 200  
Derived pointer to derived class  
b= 200  
d= 300  
Type conversion  
b= 200  
d= 400  
  
Process returned 0 (0x0) execution time : 0.266 s  
Press any key to continue.
```