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**NPTEL** (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **Programming in C++ (course)**
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## W6\_Programming-Qs4

**Due on 2020-10-29, 23:59 IST**

### Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

- ☐ Module 26 :  
Dynamic Binding  
: Part I (Lecture  
41) (unit?  
unit=72&lesson=73)
- ☐ Module 27 :  
Dynamic Binding  
(Polymorphism) :  
Part II (Lecture  
42) (unit?  
unit=72&lesson=74)

Fill in the blanks at LINE-1 with proper access modifier, at LINE-2 so that global function addition can access private data member of Base class and at LINE-3 to call Base class `show()` function such that it matches the given test cases. *Do not change any other part of the code.*

Private Test cases used for evaluation

Input	Expected Output	Actual Output	Status
5 1 0	15 10	15 10	Passed

Test Case 1

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

**Assignment submitted on 2020-10-29, 23:14 IST**

Your last recorded submission was :

```

1 #include <iostream>
2 using namespace std;
3
4 class Base {
5     int b;
6 public:
7     Base(int n) : b(n) { }
8     virtual void show() {           // LINE-1
9         cout << b << " ";
10    }
11    friend void addition(Base &,Base &);           // LINE-2
12 };
13
14 class Derived : public Base {
15     int d;
```

Module 28 :  
Dynamic Binding  
(Polymorphism) :  
Part III (Lecture  
43) (unit?  
unit=72&lesson=75)

Module 29 :  
Dynamic Binding  
(Polymorphism)  
Part IV (Lecture  
44) (unit?  
unit=72&lesson=76)

Module 30 :  
Dynamic Binding  
(Polymorphism) :  
Part V (Lecture  
45) (unit?  
unit=72&lesson=77)

Lecture Materials  
(unit?  
unit=72&lesson=78)

Quiz :  
Assignment 6  
(assessment?  
name=163)

W6\_Programming-  
Qs1  
(/noc20\_cs57/progassignment?  
name=164)

W6\_Programming-  
Qs2  
(/noc20\_cs57/progassignment?  
name=165)

W6\_Programming-  
Qs3  
(/noc20\_cs57/progassignment?  
name=166)

W6\_Programming-  
Qs4  
(/noc20\_cs57/progassignment?  
name=167)

Feedback For  
Week 6 (unit?  
unit=72&lesson=79)

## Week 7

## Week 8

```

16 public:
17     Derived(int m, int n) : Base(m), d(n) { }
18     void show() {
19         Base::show();           // LINE-3
20         cout << d << " ";
21     }
22 };
23
24 void addition(Base &x, Base &y) {
25     x.b = x.b + y.b;
26 }
27
28 int main() {
29     int m, n;
30     cin >> m >> n;
31
32     Base *t1 = new Derived(m, n);
33     Base *t2 = new Base(n);
34
35     addition(*t1, *t2);
36     t1->show();
37
38     return 0;
39 }

```

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**Assignment  
Solution**

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**Books**

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**Live Interactive  
Session**

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**Programming Test  
(11th Dec):  
Session-1  
(10.00AM -  
11.00AM)**

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**Programming Test  
(11th Dec):  
Session-2 (8.00PM  
- 9.00PM)**