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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Programming in Modern C++ (course)


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W4_Programming_Qs-2

Due on 2023-02-23, 23:59 IST

Consider the following program.

- Fill in the blanks at LINE-1 to complete forward declaration.
- Fill in the blank at LINE-2 with appropriate function declaration so that function

calculate can access private data member of TotalAmount class. The program must satisfy the sample input and output.

Course outline

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

● Lecture 16 :
Static
Members
(unit?
unit=52&lesson=53)

● Lecture 17 :
Friend
Function and
friend Class

Private Test cases used
for evaluation

Test Case 1

Input

10000
6

Expected Output

Matured Amount:
10600

Actual Output

Matured Amount:
10600

Status

Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-02-20, 18:25 IST

Your last recorded submission was :

```

1 #include<iostream>
2 using namespace std;
3
4 class Interest; //LINE-1
5 class TotalAmount{
6     double prinAmt;
7     double amt = 0;
8 public:
9     TotalAmount(double p) : prinAmt(p){}
10    double calculate(Interest&);
11 };
12 class Interest{
13     double in;
14 public:
15     Interest(double i) : in(i){ }
16
17     friend class TotalAmount; //LINE-2
18 };
  
```



```

(unit?
unit=52&lesson=54)
● Lecture 18 :
  Overloading
  Operator for
  User-Defined
  Types: Part 1
  (unit?
unit=52&lesson=55)
19
20 double TotalAmount::calculate(Interest &i){
21     amt = prinAmt * (1 + i.in / 100);
22     return amt;
23 }
24 int main(){
25     double i, j;
26     cin >> i >> j;
27     TotalAmount m(i);
28     Interest in(j);
29     cout << "Matured Amount: " << m.calculate(in);
30     return 0;
31 }

```

● Lecture 19 :
 Overloading
 Operator for
 User-Defined
 Types: Part 2
 (unit?
 unit=52&lesson=56)

● Lecture 20 :
 Namespace
 (unit?
 unit=52&lesson=57)

● Tutorial 04 :
 How to build a
 C/C++
 program?: Part
 4: Static and
 Dynamic
 Library (unit?
 unit=52&lesson=58)

● Week 4
 Lecture
 Material (unit?
 unit=52&lesson=59)

● Quiz: Week 4 :
 Assignment 4
 (assessment?
 name=177)

● W4_Programming_Qs-
 1
 (/noc23_cs50/progassignment?
 name=178)

● W4_Programming_Qs-
 2
 (/noc23_cs50/progassignment?
 name=179)

● W4_Programming_Qs-
 3
 (/noc23_cs50/progassignment?
 name=180)

○ Week 4
 Feedback



Form (unit?
unit=52&lesson=60)

● Assignment 4
Solution (unit?
unit=52&lesson=61)

Week 5 ()

Week 6 ()

Week 7 ()

Week 8 ()

**Download
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Solving
Session ()**

