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navnathdeshmukh363@gmail.com ▾

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



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W4_Programming_Qs-1

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

Consider the program below which defines a class Database. Complete the program with the following instructions.

- Fill in the blank at LINE-1 to complete the declaration of member variable `ins`.
- Fill in the blank at LINE-2 to specify the return type of `createIns()` function.
- Fill in the blank at LINE-3 to call the `createIns()` function with parameter `i`.

The program must satisfy the given test cases.

Private Test cases used for evaluation

Test Case 1

Input	Expected Output	Actual Output	Status
14 20	1414	1414	Passed

The due date for submitting this assignment has passed.



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 (unit?unit=52&lesson=54)
- Lecture 18 : Overloading Operator for User-Defined Types: Part 1 (unit? unit=52&lesson=55)
- 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

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-02-20, 18:24 IST

Your last recorded submission was :

```

1 #include<iostream>
2 using namespace std;
3 class Database{
4     int id;
5
6     static Database *ins;                //LINE-1
7
8     Database(int i) : id(i) {}
9     public:
10         int getIns(){ return id; }
11
12         static Database* createIns(int i){    //LINE-2
13
14             if(!ins)
15                 ins = new Database(i);
16             return ins;
17         }
18         ~Database();
19 };
20 Database *Database::ins = 0;
21
22 void fun(int i){
23     Database *s = Database::createIns(i);
24     cout << s->getIns();
25 }
26 // End of fun()
27
28
29 Database::~Database(){ cout << id; }
30 int main(){
31     int a,b;
32     cin >> a >> b;
33     Database *s = Database::createIns(a);
34     cout << s->getIns();
35     fun(b);
36     return 0;
37 }
```



(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 Videos ()

Books ()

Transcripts ()

**Problem Solving
Session ()**



