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



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W5_Programming_Qs-2

Due on 2023-03-02, 23:59 IST

Consider the following program with the following instructions.

- Fill in the blank at LINE-1 with appropriate keyword.
- Fill in the blanks at LINE-2 and LINE-3 to complete the constructor statements.

The program must satisfy the sample input and output.

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	Bus 4	Bus: Four Wheeler	Bus: Four Wheeler	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2023-02-25, 12:16 IST

Your last recorded submission was :

```
1 #include <iostream>
2 using namespace std;
3 class Vehicle{
4     string vehicleName;
5     int noOfWheels;
6     protected:
7         Vehicle(string s, int w) : vehicleName(s), noOfWheels(w) { }
8     public:
9         friend void vehicleDetails(const Vehicle&); //LINE-1
10 };
11 class Twowheeler : public Vehicle{
12     public:
13         Twowheeler(string n) : Vehicle(n,2) { } //LINE-2
14 };
15 class Fourwheeler : public Vehicle{
16     public:
17         Fourwheeler(string n) :Vehicle(n,4) { } //Line-3
18 };
19
20 void vehicleDetails(const Vehicle &v){
```

Course outline

How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Lecture 21 :
Inheritance:
Part 1
(Inheritance
Semantics)
(unit?
unit=62&lesson=63)

- Lecture 22 :
Inheritance:
Part 2 (Data
Member &
Member
Function -
Override &
Overload)
(unit?
unit=62&lesson=64)

```

21     cout << v.vehicleName << ": ";
22     if(v.noOfWheels == 2)
23         cout << "Two Wheeler";
24     else
25         cout << "Four Wheeler";
26 }
27 int main(){
28     string s;
29     int n;
30     Vehicle *v;
31     cin >> s >> n;
32     if(n==2)
33         v = new Twowheeler(s);
34     else
35         v = new Fourwheeler(s);
36     vehicleDetails(*v);
37     return 0;
38 }

```

- Lecture 23 :
Inheritance:
Part 3
(Constructor &
Destructor -
Object
Lifetime) (unit?
unit=62&lesson=65)

- Lecture 24 :
Inheritance:
Part 4: Phone
Hierarchy
(unit?
unit=62&lesson=66)

- Lecture 25 :
Inheritance:
Part 5: private
& protected
Inheritance
(unit?
unit=62&lesson=67)

- Tutorial 05 :
Mixing C and
C++ Code:
Part 1: Issues
and
Resolutions
(unit?
unit=62&lesson=68)

- Week 5
Lecture
Material (unit?
unit=62&lesson=69)

- Quiz: Week 5 :
Assignment 5
(assessment?
name=185)

- W5_Programming_Qs-
1
(/noc23_cs50/progassignment?
name=182)

☒ **W5_Programming_Qs-2**
(/noc23_cs50/progassignment?name=183)

☒ **W5_Programming_Qs-3**
(/noc23_cs50/progassignment?name=184)

☐ **Week 5**
Feedback
Form (unit?
unit=62&lesson=70)

☐ **Assignment 5**
Solution (unit?
unit=62&lesson=71)

Week 6 ()

Week 7 ()

Week 8 ()

Download
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Problem
Solving
Session ()