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


W9_Programming_Qs-2

Due on 2023-03-30, 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 ()

Week 7 ()

Week 8 ()

Week 9 ()

☐ Lecture 41 :
Input-Output:
File Handling

Consider the following program (in C++11) that considers a number of purchases as input and find out the total expense. Fill in the blanks as per the instructions given below:

- Fill in the blank at LINE-1 with appropriate header to overload function operator.
- Fill in the blank at LINE-2 with an appropriate return statement to implement the overload function operator.
- Fill in the blank at LINE-3 with the appropriate parameter list for calling the function accumulate,

The program must satisfy the sample input and output.

Your last recorded submission was on 2023-03-25, 21:08 IST

Select the Language for this assignment. C++ ▾

```

1 #include <iostream>
2 #include <list>
3 #include <numeric>
4
5 class purchase{
6     public:
7         purchase(int item_no, double price, int qty) : item_no_(item_no),
8             price_(price), qty_(qty){}
9         double get_price(){ return price_; }
10        int get_qty(){ return qty_; }
11    private:
12        int item_no_;
13        double price_;
14        int qty_;
15 };
16
17 struct total_expense{
18     double operator() (double d, purchase& p){ //LINE-1
19         return d + p.get_price()*p.get_qty(); //LINE-2
20     };
21 };
22 double get_total_expense(std::list<purchase> li, total_expense tc){
23     double total = accumulate(li.begin(),li.end(),0.0,tc); //LINE-3

```

in C (unit?
unit=102&lesson=103)

```
24 return total;
25 }
```

Lecture 42 :
Input-Output:
Streams in
C++ (unit?
unit=102&lesson=104)

Lecture 43 :
C++ Standard
Library: Part 1
(Generic
Programming)
(unit?
unit=102&lesson=105)

```
0 int main(){
1     int n, a, b;
2     double c;
3     std::list<purchase> li_pur;
4     std::cin >> n;
5     for(int i = 0; i < n; i++){
6         std::cin >> a >> c >> b; //read item_no, price and quantity
7         purchase od(a, c, b);
8         li_pur.push_back(od);
9     }
10    total_expense tc;
11    std::cout << get_total_expense(li_pur, tc);
12    return 0;
13 }
```

Lecture 44 :
C++ Standard
Library: Part 2
(STL) (unit?
unit=102&lesson=106)

Lecture 45 :
C++ Standard
Library: Part 3
(STL) (unit?
unit=102&lesson=107)

You may submit any number of times before the due date. The final submission will be considered for grading.

This assignment has Public Test cases. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.

Save as Draft

Compile & Run

Submit

Reset

Tutorial 09 :
How to design
a UDT like
built-in types?:
Part 3:
Updates and
Mixes of UDTs
(unit?
unit=102&lesson=108)

Week 9
Lecture
Material (unit?
unit=102&lesson=109)

Quiz: Week 9 :
Assignment 9
(assessment?
name=202)

W9_Programming_Qs-
1
(/noc23_cs50/progassignment?
name=204)

W9_Programming_Qs-
2
(/noc23_cs50/progassignment?
name=205)

Compilation : Passed

Public Test Cases: 2 / 2 Passed

Note: These tests may not be considered while scoring. Know more.

| Public Test Cases | Input | Expected Output | Actual Output | Status |
|-------------------|--------------------------------------|-----------------|---------------|--------|
| Test Case 1 | 2 101 50.0 4 102 100.5 5 | 702.5 | 702.5 | Passed |



● W9_Programming_Qs-3
(/noc23_cs50/progassignment?name=207)

Download Videos ()

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Transcripts ()

Problem Solving Session ()

Test Case 2

4
101 20.0
10
102 50.5
10
103 100.0
1
104 33.0
5

970

970

Passed

