Classwork 4 part 1

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Class: CMSC140\_30522

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Class work 4 part 1

Description of CW 4:

1. A software company sells a package that retails for $99. Quantity discounts are given according to the following table.

Quantity discount

10-19 20%

20-49 30%

50-99 40%

100 or more 50%

Write a program that asks for the number of units sold and computes the total cost of the purchase.

Input validation: Make sure the number of units is greater than 0.

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#include <iostream>

#include <string>

#include <iomanip>

using namespace std;

int main()

{// define variable

const double unitcost = 99.00;

int unitsSold;

double totalCost;

cout << "How many units were sold ? ";

cin >> unitsSold;

// input validation for negative number input

if (unitsSold < 0)

cout << "Units sold must be grester than zero. " << endl;

else

{

// calculations

if (unitsSold <= 10)

totalCost = unitsSold \* unitcost;

// apply discount rate from the table

else if (unitsSold >= 10 && unitsSold <= 19)

totalCost = (1.0 - 0.2) \* (unitsSold \* unitcost);

else if (unitsSold >= 20 && unitsSold <= 49)

totalCost = (1 - .3) \* (unitsSold \* unitcost);

else if (unitsSold >= 50 && unitsSold <= 99)

totalCost = (1 - .4) \* (unitsSold \* unitcost);

else

totalCost = (1 - 0.5) \* (unitsSold \* unitcost);

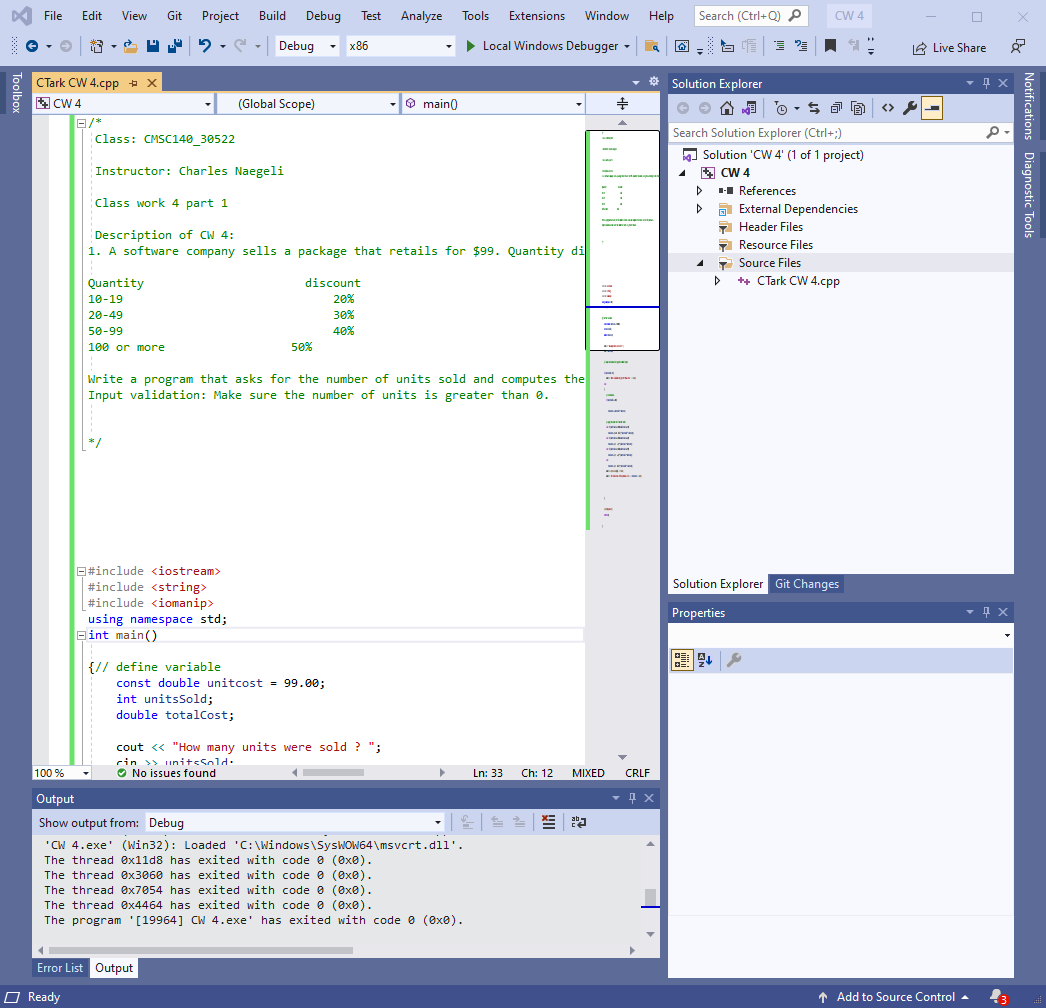
cout << setprecision(2) << fixed;

cout << "The total cost of the purchase is $ " << totalCost << endl;

}

system("pause");

return 0;

}

