**Purchase Discounts**

*purchdc.cpp*

Write a program which calculates the gross purchase amount of a customer’s purchases in a supermarket.

**PROGRAM DESIGN**

Other than reward points, stores attract customers through discounts applied through various total amount ranges. The program should take in the purchase amounts of a customer. Once all purchase amounts are entered, the program should get the total purchase amount – and determine if there are discounts to be applied to the total amount(see chart below).

**PROGRAM SKELETON**

#include <iostream>

using namespace std;

int main()

{

double total\_purch;

double curr\_purch;  
 float discount\_rate;

do  
 {

...

}  
 while()

...

return 0;

}

**INPUT**

There are multiple double inputs for this program. A do-while loop structure should be used to take in these inputs, as long as the user does not enter 0 (zero). Once zero was entered – the do-while loop structure terminates and the program calculates the output.

**OUTPUT**

Once the inputs are accepted, the program should calculate the total purchase amount and determine what discount rate should be applied based on the amount. Once the discount rate is determined – apply this with the total amount and output it. Discount rates are as follows:

|  |  |
| --- | --- |
| **Purchase amount ranges** | **Discount Rate** |
| >= 7500 | 25% |
| >= 5000 but < 7500 | 12.5% |
| >= 2500 but < 5000 | 6.25% |
| < 2500 | No discount |

The discounted output should have a 2 floating point precision!

|  |  |
| --- | --- |
| **Sample Input1** | **Sample Output 1** |
| 2500  1000  5000  0 | 6375.00 |

|  |  |
| --- | --- |
| **Sample Input2** | **Sample Output2** |
| 2500  100  0 | 2437.50 |