

Week 05 - Programming Assignment

Due Sunday by 11:59pm Points 45 Submitting a file upload File Types cpp

Johnny Utah owns a surf shop on the beach called "Point Break Surf Shop". Johnny sells surfboards in 3 three sizes: small (2 meters), medium (3 meters), and large (4 meters). The cost of one small surfboard is \$175.00, one medium is \$190.00, and one large is \$200.00. Write a program that will make the surf shop operational. Your program should allow the user to do the following:

Buy any surfboard in any size and in any quantity.

At any time show the total number of surfboards of each size sold.

At any time show the total money made.

Your program must consist of "int main()" and at least the following functions:

`void ShowUsage();`

a function to show the user how to use the program.

`void MakePurchase(int& iTotalSmall, int& iTotalMedium, int& iTotalLarge);`

a function to sell surfboards.

`void DisplayPurchase(const int iTotalSmall, const int iTotalMedium, const int iTotalLarge);`

function to show the number of surfboards of each size sold.

`void DisplayTotal(const int iTotalSmall, const int iTotalMedium, const int iTotalLarge);`

a function to show the total amount of money made.

In your program you must define the functions as they are defined above. Do not change the signature (the name, parameters or the return value) or you will be marked down.

Your program should not use any global variables and the cost of the surfboards must be declared as named constants.

Your program should look and perform identically as the example below.

```
C:\Users\John\Documents\Visual Studio 2017\Projects\ITCS2530\PointBreakSurfBoards\De...
*****
**** Welcome to my Johnny Utah's PointBreak Surf Shop ****
*****

To show program usage 'S'
To purchase a surfboard press 'P'
To display current purchases press 'C'
To display total amount due press 'T'
To quit the program press 'Q'

Please enter selection: c
No purchases made yet.

Please enter selection: t
No purchases made yet.

Please enter selection: p
Please enter the quantity and type (S=small, M=medium, L=large) of surfboard you
would like to purchase:3 m

Please enter selection: c
The total number of medium surfboards is 3

Please enter selection: p
Please enter the quantity and type (S=small, M=medium, L=large) of surfboard you
would like to purchase:2 l

Please enter selection: c
The total number of medium surfboards is 3
The total number of large surfboards is 2

Please enter selection: t
The total number of medium surfboards is 3 at a total of $570.00
The total number of large surfboards is 2 at a total of $400.00
Amount due: $970.00

Please enter selection: q
Thank you
Press any key to continue . . .
```

An example executable can be found here [Download here](#).

Grading:

Your program compiles, runs, declares and calls the required functions above, performs calculations correctly and the output just like the picture above - 35 pts.

Your program compiles and runs and declares and calls the required functions above, and the output is similar to the picture above - 30 pts.

Your program compiles and runs, and declares/uses most the required functions above, and the output is just like the picture above (correct calculations)- 25 pts.

Your program compiles, runs and but only uses one or two of the required functions but the output is close to the picture above (incorrect calculations) - 15 pts

Your program compiles and runs and but doesn't use any of the required functions- 5 pts

Your program doesn't compile and therefore doesn't run - 0 pts

Note: Your program must contain many comments explaining the difficult parts of your program and therefore convincing me that you understand and therefore wrote the code - 10 pts