HW 2: C++ Introduction

Jason opened a coffee shop at the beach and seels coffee in three different sizes: small (9oz $1.75), medium (12oz $1.90), and large (15oz $2.00). Write a menu-driven program that will make the coffee shop operational. Your program should allow the user to do the following:

- Buy coffee in any size and in any number of cups

- At any time show the total number of cups of each size sold

- At any time show the total amount of coffee sold

- At any time show the total money made

Your program should consist of at least the following functions:

- `void userMenu(....); // shows the user how to use the program`

- `void showCupCount(....); // number of cups of each size sold`

- `void showMoneyMade(....); // amount tendered`

- `void showCoffeeSold(....); // shows total tendered`

- `void sellCoffee(....); // perform sale`

The functions listed above should be orgranized in the following files:

- `hw02.hpp`// header file with personal, assignment info, and declarations

- `hw02menu.cpp // file which contains userMenu() source code`

- `hw02showcount.cpp // contains showCupCount() source code`

- `hw02showamt.cpp // contains showMoneyMade() source code`

- `hw02showsale.cpp // contains showCoffeeSold() source code`

- `hw02saleprod.cpp // contains saleCoffee() source code`

- `hw02.cpp // source code where the main()function is`

Once you finish developing the project and are satisfied with the results, use the command `script` to capture your interaction compiling and running the program as shown below:

```
drb@nest:~/cs1b/hw/02$ script hw02.scr
Script started, file is hw02.scr
drb@nest:~/cs1b/hw/02$ date
...
drb@nest:~/cs1b/hw/02$ ls -l
...
drb@nest:~/cs1b/hw/02$ make all
g++ -c hw02menu.cpp -o hw02menu.o
g++ -c hw02showcount.cpp -o hw02showcount.o
g++ -c hw02showamt.cpp -o hw02showamt.o
g++ -c hw02showsale.cpp -o hw02showsale.o
g++ -c hw02saleprod.cpp -o hw02saleprod.o
g++ hw02.cpp -o hw02 hw02menu.o hw02showcount.o hw02showamt.o hw02showsale.o
hw02saleprod.o
drb@nest:~/cs1b/hw/02$ ls -l
...
drb@nest:~/cs1b/hw/02$ ./hw02
1: Enter 1 to order coffee.
2: Enter 2 to check the total money made up to this time.
3: Enter 3 to check the total amount of coffee sold up to this time.
4: Enter 4 to check the number of cups of coffee of each size sold.
5: Enter 5 to print the data.
9: Enter 9 to exit the program.
1

1: Enter 1 to buy coffee in a small cup size (9 oz)
2: Enter 2 to buy coffee in a medium cup size (12 oz)
3: Enter 3 to buy coffee in a large cup size (15 oz)
9: Enter 9 to exit.
1

Enter the number of cups: 2

1: Enter 1 to buy coffee in a small cup size (9 oz)
2: Enter 2 to buy coffee in a medium cup size (12 oz)
3: Enter 3 to buy coffee in a large cup size (15 oz)
9: Enter 9 to exit.
2

Enter the number of cups: 1

1: Enter 1 to buy coffee in a small cup size (9 oz)
```

```
2: Enter 2 to buy coffee in a medium cup size (12 oz)
3: Enter 3 to buy coffee in a large cup size (15 oz)
9: Enter 9 to exit.
3


Enter the number of cups: 1

1: Enter 1 to buy coffee in a small cup size (9 oz)
2: Enter 2 to buy coffee in a medium cup size (12 oz)
3: Enter 3 to buy coffee in a large cup size (15 oz)
9: Enter 9 to exit.
9


Please pay $7.40

1: Enter 1 to order coffee.
2: Enter 2 to check the total money made up to this time.
3: Enter 3 to check the total amount of coffee sold up to this time.
4: Enter 4 to check the number of cups of coffee of each size sold.
5: Enter 5 to print the data.
9: Enter 9 to exit the program.
2


Total money made: $7.40

1: Enter 1 to order coffee.
2: Enter 2 to check the total money made up to this time.
3: Enter 3 to check the total amount of coffee sold up to this time.
4: Enter 4 to check the number of cups of coffee of each size sold.
5: Enter 5 to print the data.
9: Enter 9 to exit the program.
3


Total amount of coffee sold: 45oz

1: Enter 1 to order coffee.
2: Enter 2 to check the total money made up to this time.
3: Enter 3 to check the total amount of coffee sold up to this time.
4: Enter 4 to check the number of cups of coffee of each size sold.
5: Enter 5 to print the data.
9: Enter 9 to exit the program.
4

Small cup count: 2
Medium cup count: 1
```

```
Large cup count: 1

1: Enter 1 to order coffee.
2: Enter 2 to check the total money made up to this time.
3: Enter 3 to check the total amount of coffee sold up to this time.
4: Enter 4 to check the number of cups of coffee of each size sold.
5: Enter 5 to print the data.
9: Enter 9 to exit the program.
5

Small cup count: 2
Medium cup count: 1
Large cup count: 1
Total amount of coffee sold: 45oz
Total money made: $7.40

1: Enter 1 to order coffee.
2: Enter 2 to check the total money made up to this time.
3: Enter 3 to check the total amount of coffee sold up to this time.
4: Enter 4 to check the number of cups of coffee of each size sold.
5: Enter 5 to print the data.
9: Enter 9 to exit the program.
9
drb@nest:~/cs1b/hw/02$ ls -l
...
drb@nest:~/cs1b/hw/02$ exit
Script done, file is hw02.scr
drb@nest:~/cs1b/hw/02$ tar cf hw02.tar hw02.hpp hw02menu.cpp
hw02showcount.cpp hw02showamt.cpp hw02showsale.cpp hw02saleprod.cpp hw02.cpp
hw02.scr
```

Do not include compiled (machine code) files in the `tar` archive, just the files (header and source code) listed above. Turn the `tar` archive file (`hw02.tar`) in canvas by the due date/time on top of this page.