

CMPS 2010 Lab 4

Fall 2024

Part 1 - Menus and Input Validation (lab4-1.cpp)

Create a cash register for a simple fruit shop that sells 3 different foods.

1. Display the shop inventory with line item options
2. Request two items from the user: **option** (line item), and **quantity requested**.
3. Use an validation loop for both option and quantity to force the user to provide valid inputs
4. Verify that the quantity requested is valid for the option chosen (NO NEGATIVE QUANTITIES!)
5. If option and quantity are valid:
 - a. Update the stock (ex: applesInStock -= quantityRequested)
 - b. Print a message indicating how many of the fruit chosen are left
6. If option or quantity are invalid:
 - a. Print an error message

The output might look something like this:

```
-----  
WELCOME TO PAUL'S FRUITS!  
Here's what he have available today:!  
-----  
1) Apples (20)  
2) Bananas (10)  
3) Oranges (30)  
-----  
  
Choose an option: 1  
How many apples would you like?: 5  
  
There are 15 apples remaining
```

Part 2 - While Loop With Flag

Continue where you left off with Part 1 (in the same `lab4-1.cpp` file):

1. Allow the user to complete multiple transactions using a **while loop** and a **flag**.
2. Use **constants** to add prices for your fruit and an **accumulator** to track the total owed by the user.
3. Add a fourth option to quit the program (this will update the flag)
4. Before the program ends print the total money the user owes.

The output might look something like this:

```
-----  
WELCOME TO PAUL'S FRUITS!  
Here's what he have available today:!  
-----  
1) Apples (20)           $0.50  
2) Bananas (10)         $0.25  
3) Oranges (30)        $1.00  
4) Quit  
-----  
  
Choose an option: 1  
How many apples would you like?: 5  
  
-----  
WELCOME TO PAUL'S FRUITS!  
Here's what he have available today:!  
-----  
1) Apples (15)           $0.50  
2) Bananas (10)         $0.25  
3) Oranges (30)        $1.00  
4) Quit  
-----  
  
Choose an option: 2  
How many bananas would you like?: 3  
  
-----  
WELCOME TO PAUL'S FRUITS!  
Here's what he have available today:!  
-----  
1) Apples (15)           $0.50  
2) Bananas (7)          $0.25  
3) Oranges (30)        $1.00  
4) Quit  
-----  
  
Choose an option: 4  
You chose to quit  
  
YOU OWE $3.25 FOR YOUR FRUIT!
```

Run this command from your [lab4](#) folder to submit your work.

```
/home/fac/paul/s/submit.sh
```