

The “Schmealthy” Vending Machine

It's different from healthy!

Background:

In an ever changing world where everyone is focused on both eating healthy and saving money, it's no wonder these Schmealth vending machines are popping up all over the place! Well, they will once you design them, of course. The way these machines work is simple: When a customer approaches one, the machines asks how much money they have. Then, the customer selects products until they either choose to stop, or they run out of money. The products that can be ordered, as well as their prices and corresponding buttons, are as follows:

<u>Button</u>	<u>Product</u>	<u>Price</u>
1	Schmapple	\$1.50
2	Lightly Used Grape	\$1.00
3	Scent of a Pizza	\$0.50
4	Heavily Used Grape	\$1.25
5	Banana?	\$2.00



Once a customer has finished ordering products, output which products they bought (in ascending order of button number), the quantity of each item, and how much money they have left.

Specifications:

Program Flow:

1. Greet the user
2. Get how much money the user has as input
3. Prompt user to select a product 1-5
4. If the user has the funds to purchase it, state that the product was successfully purchased. If not, state that they do not have enough funds.
5. Ask the user if they would like to purchase more products (y or n)
6. Repeat steps 3-5 if they choose y. If they choose n, output which products the user bought, the quantity of those products, and how much money they have remaining.

Tips:

In this assignment, you will be required to output all of your monetary values with 2 decimal places (even if it is a whole number, such as \$11.00). An easy way to accomplish this is with the following lines of code:

```
#include <iomanip>
```

```
cout << fixed;  
cout << setprecision(2);
```

The `#include` statement should go with your other `#include` statements, and the `cout` statements should go in your `main` function, at any point before your first `cout` statement for a monetary value. .

Example Output 1

(User input in **red**, console output in **blue**)

This is the Schmending Machine! How much money do you have?

37.50

Enter product selection (1-5)

3

Purchased: Scent of a pizza

Keep purchasing? (y/n)

y

Enter product selection (1-5)

2

Purchased: Lightly Used Grape

Keep purchasing? (y/n)

y

Enter product selection (1-5)

3

Purchased: Scent of a pizza

Keep purchasing? (y/n)

n

You purchased:
Lightly Used Grape - 1
Scent of Pizza - 2

You have \$35.50 remaining. Have a Schmealthy day!

Example Output 2

This is the Schmending Machine! How much money do you have?

1.5

Enter product selection (1-5)

4

Purchased: Heavily Used Grape

Keep purchasing? (y/n)

y

Enter product selection (1-5)

1

Not enough funds!

Keep purchasing? (y/n)

n

You purchased:
Heavily Used Grape - 1

You have \$0.25 remaining. Have a Schmealthy day!