Vending Machine

This is an adaptation of a problem found online, but for the sake of doing this exercise, please do not just entirely copy someone else’s solution to this online problem :)

Using C++ and Visual Studio, implement a command-line vending machine

The vending machine displays a numbered list of its stock, followed by a prompt. It accepts the following commands:

POUND, TWO POUNDS, 1, 2, 5, 10, 20, 50 - adds money of the stated denomination and shows the user their updated total

COIN RETURN - returns all added money. Print the value returned out in both the individual coin values (“POUND”, “TWO POUNDS”, 1, 2, …. ), and an additional line stating the total

BUY <integer item number> - purchases the item with number, spends the money, and informs the user of their purchase. If the item does not exist then no money is spent and no item is purchased. If the user does not have enough money, inform them that they cannot buy the item, tell them how much money they do have, and do not allow them to purchase the item

SERVICE - Prompt for a password, which for this exercise will be the incredibly secure value of “1234abc”. Allow the user to enter the menu only if the correct password is given

Service Menu

1. Add items
2. Remove items
3. Exit

For “Add items”, prompt the user

“Enter the item name, its price, and the quantity:”

For example, an input of “Mars Bar, £0.60, 3” would be valid here. If Mars Bar already exists (this check should be case-insensitive), then increase its stock quantity by 3. All prices entered at this time overwrite existing prices, so if Mars Bar was previously £0.50, now it will be £0.60.

For “Remove items”, prompt the user

“Enter the item name, followed by the quantity:”

For example, an input of “Mars Bar, 3”, will reduce the stock of Mars Bars by 3. If Mars Bar does not exist, inform the user here and return to the previous prompt. Again, the stock check is case-insensitive

Exit exits the service mode and returns to the vending machine