Lab 4.04 - Shopping List

Part 1

The goal of this lab is to practice using and accessing items from lists of lists.

You have a few errands to run and have created a few shopping list to help you remember what to buy. You stored your notes in a nested list, `shopping_cart`. This program will allow the user to ask for a specific item by it's index or update what items are in the cart. The user can request to `view list` to see the items in a specific shopping list.

Shopping Cart

```
shopping_cart = [
['tooth paste', 'q-tips', 'milk'],
['milk', 'candy', 'apples'],
['planner', 'pencils', 'q-tips']
]
```

User Inputs

`update`

- The program asks which shopping list the user wants to update, which position it should update, and the new value to update.

`view item`

- The program asks which shopping list the item is on and which position i occupies, then prints the items name.

`view list`

- The program asks which shopping list the user wants and prints all of the items associated with that shopping list.

Functions

`update_list`

- Takes in an integer representing the index of the shopping list, an integer representing the index of the item to update, and a string representing the new value for that item. Does not alter the length of the list.

`print_item`

- Takes an int representing the index of the shopping list followed by an int representing the index of the item to print.

`print_list`

- Takes an int representing the index of the shopping list to print.
- Feel free to add more functions as you see fit

Example

```
>>>What would you like to do? view list
Which shopping list would you like to see? 1
tooth paste, q-tips, gum
```

Part 2

In this part of the lab you will go through your shopping list program and perform a few different calculations.

1. Create a function, `all_in_one`, that will put all the shopping lists into a single list using a for loop.
2. Create a function, `count_q_tips`, which will go through all items of the list and keep a count of how many times `'q-tips'` occurs.
3. In order to make the shopping lists more calcium rich, write a function, `drink_more_milk`, that adds `'milk'` to each of the lists (unless it's already there).
4. You can't have milk without cookies. Write a function `if_you_give_a_moose_a_cookie`, that will go through every element of `shopping_cart` and update `'milk'` to be `'milk and cookies'`.

Bonus

Write a function to reverse the order of the lists and items in `shopping_cart`.

The list should look like the following when printed:

```
shopping_cart = [
['q-tips', 'pencils', 'planner'],
['apples', 'candy', 'milk'],
['milk', 'q-tips', 'tooth paste']
]
```

Tip

- Last item can be gotten by `my_list[-1]`
- Second to last element: `my_list[-2]`
- Third to last element: `my_list[-3]`