Metropolitan State University

ICS 140 Computational Thinking with Programming

Assignment 11

**Shopping List**

You are tasked with creating a simple program in Python to manage a shopping list. The program will allow users to add items to the list, remove items from the list, view the items in the list, and quit the program.

Program Requirements

* The program should display a menu with the following options:
  + Add item
  + Remove item
  + View list
  + Quit
* The program should use functions to implement the different actions of the menu.
* The program should use a list to store the items in the shopping list.
* The program should continuously display the menu and prompt the user for their choice until they choose to quit.
* The program should validate the user's input and handle invalid choices.

Function Details

* display\_menu()
  + Summary: Displays the menu options to the user.
  + Input: No input parameters.
  + Output: Prints the menu options to the console.
* add\_item(item\_list)
  + Summary: Prompts the user to enter an item and adds it to the shopping list.
  + Input: item\_list - A list to store the items.
  + Output: Prints a confirmation message if the item is added successfully.
* remove\_item(item\_list)
  + Summary: Prompts the user to enter an item to remove and removes it from the shopping list if found.
  + Input: item\_list - A list that contains the items.
  + Output: Prints a confirmation message if the item is removed successfully. If the item is not found, prints a message indicating that.
* view\_list(item\_list)
  + Summary: Displays the items in the shopping list.
  + Input: item\_list - A list that contains the items.
  + Output: Prints the items in the shopping list to the console.
* main()
  + Summary: The main program loop that repeatedly displays the menu, prompts for user input, and calls the appropriate function based on the input.
  + Input: No input parameters.
  + Output: Executes the actions based on the user's choices until the user decides to quit.

It should look something like this when run.

1. Add item

2. Remove item

3. View list

4. Quit

Enter your choice (1-4): 1

Enter an item: Milk

Item added!

1. Add item

2. Remove item

3. View list

4. Quit

Enter your choice (1-4): 1

Enter an item: Bread

Item added!

1. Add item

2. Remove item

3. View list

4. Quit

Enter your choice (1-4): 3

List:

Milk

Bread

1. Add item

2. Remove item

3. View list

4. Quit

Enter your choice (1-4): 2

Enter the item to remove: Milk

Item removed!

1. Add item

2. Remove item

3. View list

4. Quit

Enter your choice (1-4): 3

List:

Bread

1. Add item

2. Remove item

3. View list

4. Quit

Enter your choice (1-4): 4

Goodbye!

**Python code for shopping list program**

A screenshot of a computer program

Description automatically generated

A computer screen shot of a program code

Description automatically generated

**Screenshots of adding a few items, viewing the list and removing an item.**

**A screenshot of a computer program

Description automatically generated**