**Midterm Lab Task 3**
**List Collections**

**Problem 1. Using the List Collection type**. Create a program that will allow the user to perform the following functions: (add, update, search, delete, display, and sort) items in a list:

You are free to decide what data you will be storing in the list and name the list based on the type of data you wish to store.

**[ MENU OPTIONS ]**
**1 – Add Items**
**2 – Search for an Item**
**3 – Remove an Item**
**4 – View all items (Sorted)**
**0 – Exit program**

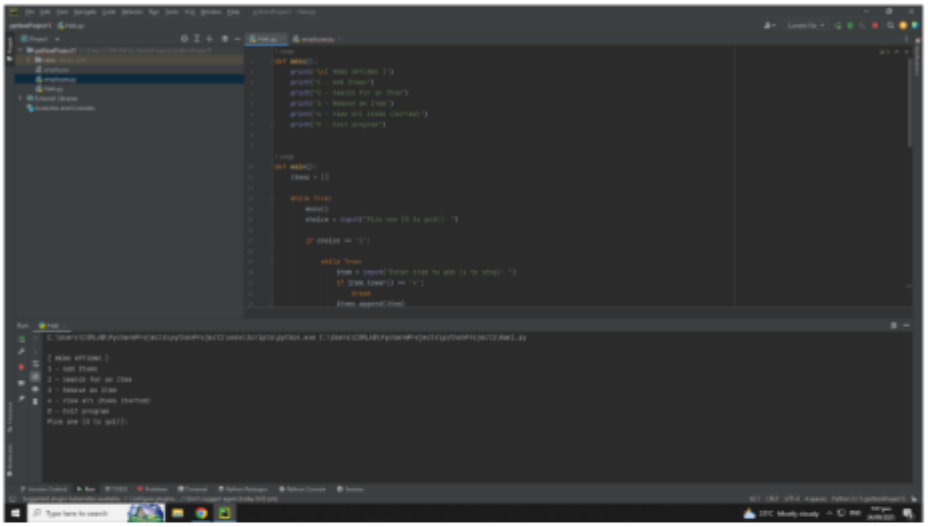
**Pick one [0 to quit]: ___**
**Requirements:**

1. The user can add items in the list until the user presses x to stop
2. The user should be able to perform **search** if an item exists – Display if found or not found and count the number of instance in the list.
3. The user should also be given the option to remove an item in the list – Display the Message "Item found and deleted" once deletion is performed – else display "item not found-deletion unsuccessful"
4. The user may also opt to view items in the list and display items sorted in Ascending order
5. The user may opt to exit the program by typing 0

*Note: you are free to design the interface of the program, base on the Menu options shown.*

Source Code

Screen Shot of Test Cases or Sample Outputs



```
def menu():
    print("\n[ MENU OPTIONS ]")
    print("1 – Add Items")
    print("2 – Search for an Item")
    print("3 – Remove an Item")
    print("4 – View all items (Sorted)")
    print("0 – Exit program")


def main():
    items = []


    while True:
        menu()
        choice = input("Pick one [0 to quit]: ")


        if choice == "1":
```

```
    while True:
        item = input("Enter item to add (x to stop): ")
        if item.lower() == "x":
            break
        items.append(item)
    print("Items added successfully!")

elif choice == "2":

    search = input("Enter item to search: ")
    if search in items:
        count = items.count(search)
        print(f"Item '{search}' found! Occurrences: {count}")
    else:
        print(f"Item '{search}' not found!")

elif choice == "3":

    remove = input("Enter item to remove: ")
    if remove in items:
        items.remove(remove)
        print(f"Item '{remove}' found and deleted.")
    else:
        print(f"Item '{remove}' not found – deletion unsuccessful.")

elif choice == "4":

    if len(items) == 0:
        print("No items in the list.")
```

```
            else:
                print("Items in ascending order:")
                for i in sorted(items):
                    print(i)

        elif choice == "0":
            print("Exiting program. Goodbye!")
            break

        else:
            print("Invalid option. Try again.")

# Run program
main()
```