

### 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.*

```
things = []
def
intro():
    print("[ MENU OPTIONS]\n"
"1 - Add Items\n"
        "2 - Search for an Item\n"
        "3 - Remove an Item\n"
"4 - View all Items (Sorted)\n"
        "0. Exit Problem")
    ans = input("Pick one [0 to quit]: ")
return ans
    def add():
print()
while True:
    name = input("Input name (type x to stop): ")
if name == 'x':
    break
else:
things.append(name)
print()
    def search():
print()
    if
len(things) == 0:
        return
    which = input("What are you looking for?: ")
if which in things:
    count = things.count(which)
    print(f"Sucesfully found \"{which}\" {count}
time/s!")
    else:
        print(f"No \"{which}\" found.")
print()
    def remove():
print()
    if
len(things) == 0:
        return
print("List:")
for i in things:
print(f"-{i}")
    which = input("Which one? (name): ")
if which in things:
    things.remove(which)
    print("Item found and deleted.")
    else:
print("Item not found - deletioj unsuccessful.")
print()
    def
view():
print()
```

```
    if len(things) == 0:        return
temp = things.copy()          temp.sort()
print("Sorted List:")          for i, word in
enumerate(temp, start=1):
    print(f"{i} - {word}")
print()
while
True:
    ans = intro()
if ans == '1':
    add()
elif ans == '2':
    search()
elif ans == '3':
    remove()
elif ans == '4':
    view()
elif ans == '0':
    print("\nThank you for using my
program!")
    break
else:
    print("\nPlease input a correct digit [0-4]\n")
```

C:\Users\COMLAB\AppData\Local\Programs\Python\Python311\python.exe

C:\Users\COMLAB\PycharmProjects\pythonProject\uh.py

[ MENU OPTIONS]

1 - Add Items

2 - Search for an Item

3 - Remove an Item

4 - View all Items (Sorted)

0. Exit Problem

Pick one [0 to quit]: 1

Input name (type x to stop): hi

Input name (type x to stop): hi

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Input name (type x to stop): asd

Input name (type x to stop): x

[ MENU OPTIONS]

1 - Add Items

2 - Search for an Item

3 - Remove an Item

4 - View all Items (Sorted)

0. Exit Problem

Pick one [0 to quit]: 2

What are you looking for?: hi

Succesfully found "hi" 2 time/s!

[ MENU OPTIONS]

1 - Add Items

2 - Search for an Item

3 - Remove an Item

4 - View all Items (Sorted)

0. Exit Problem

Pick one [0 to quit]: 3

List:

-hi

-hi

-asd

Which one? (name): hi

Item found and deleted.

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[ MENU OPTIONS]

1 - Add Items

2 - Search for an Item

3 - Remove an Item

4 - View all Items (Sorted)

0. Exit Problem

Pick one [0 to quit]: 4

Sorted List:

1 - asd

2 - hi

[ MENU OPTIONS]

1 - Add Items

2 - Search for an Item

3 - Remove an Item

4 - View all Items (Sorted)

0. Exit Problem

Pick one [0 to quit]: