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BSCS C204

**Problem:**

**Problem 1. Using 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:

**Code:**

```
def main():

    items = []

    while True:
        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 A-Z | Z-A)")
        print("0 - Exit Program")

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

        if choice == "0":
            print("Exiting program... Done.")
            break

        elif choice == "1":
            print("\nEnter items (type 'x' to stop):")
            while True:
                item = input("Enter item: ")
                if item.lower() == "x":
                    break
                items.append(item)
            print("Items added successfully!")

        elif choice == "2":
            search_item = input("Enter item to search: ")
            count = items.count(search_item)
            if count > 0:
                print(f'{search_item}' found {count} time(s) in the list.")
            else:
                print(f'{search_item}' not found in the list.")

        elif choice == "3":
            remove_item = input("Enter item to remove: ")
            if remove_item in items:
                items.remove(remove_item)
                print("Item found and deleted.")
            else:
                print("Item not found - deletion unsuccessful.")

        elif choice == "4":
            if len(items) == 0:
                print("The list is empty.")
            else:
                sort_choice = input("Sort order (A for Ascending, D for Descending): ").lower()
                if sort_choice == "a":
                    for i in sorted(items):
```

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        print(i)
    elif sort_choice == "d":
        for i in sorted(items, reverse=True):
            print(i)
    else:
        print("Invalid choice. Showing unsorted list:")
        for i in items:
            print(i)

```

```

else:
    print("Invalid choice! Please try again.")

```

```

main()

```

### Sample Output:

```

[ MENU OPTIONS ]
1 - Add Items
2 - Search for an item
3 - Remove an Item
4 - View all Items (Sorted A-Z | Z-A)
0 - Exit Program
Pick one [0 to quit]: 1

Enter items (type 'x' to stop):
Enter item: Avocado
Enter item: Banana
Enter item: Mango
Enter item: x
Items added successfully!

[ MENU OPTIONS ]
1 - Add Items
2 - Search for an Item
3 - Remove an Item
4 - View all Items (Sorted A-Z | Z-A)
0 - Exit Program
Pick one [0 to quit]: 2
Enter item to search: Banana
'Banana' found 1 time(s) in the list.

[ MENU OPTIONS ]
1 - Add Items
2 - Search for an Item
3 - Remove an Item
4 - View all Items (Sorted A-Z | Z-A)
0 - Exit Program
Pick one [0 to quit]: 3
Enter item to remove: Avocado
Item found and deleted.

[ MENU OPTIONS ]
1 - Add Items
2 - Search for an Item
3 - Remove an Item
4 - View all Items (Sorted A-Z | Z-A)
0 - Exit Program
Pick one [0 to quit]: 4
Sort order (A for Ascending, D for Descending): 1

```