

Karthick VM

Batch-CIS 1.3

Mock Assessment 1 – Python

PROGRAM 3:

File Handling Utility – Text Analyzer Objective:

Read sample .txt file and display all Unique cities

sample.txt (copy the below to sample.txt file)

EmpID,Name,Department,Location

E1001,Asha Rao,Data Science,Mumbai

E1002,Rahul Mehta,IT Support,Hyderabad

E1003,Neha Singh,Human Resources,Hyderabad

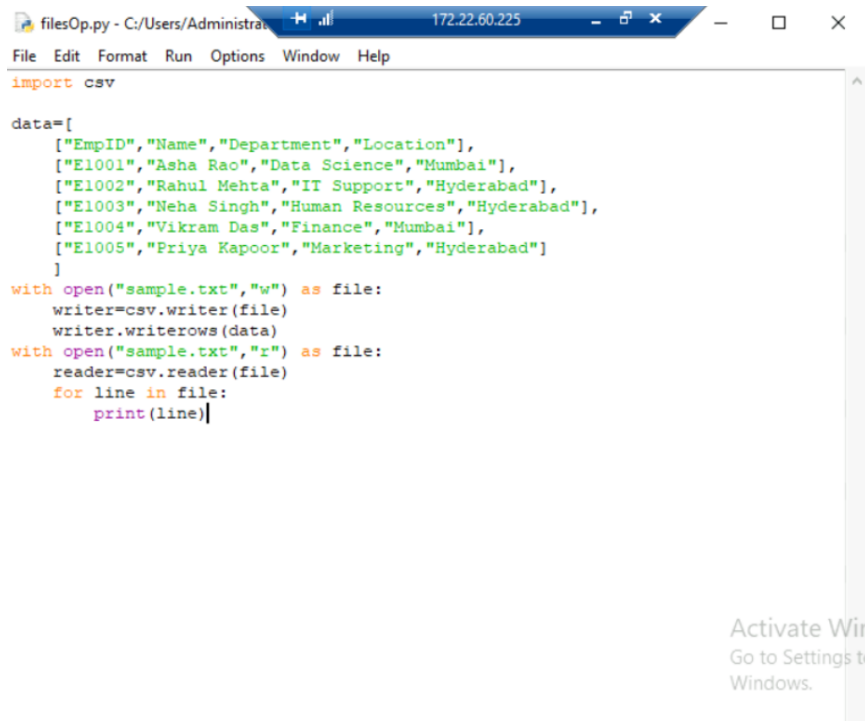
E1004,Vikram Das,Finance,Mumbai

E1005,Priya Kapoor,Marketing,Hyderabad

Requirements:

- Ask the user for a file path; open safely with try/except for FileNotFoundError.
- Use if condition wherever required
- Use user defined function

- Creating file named “sample.txt” with given data



The screenshot shows a Python script in a file editor window titled "filesOp.py". The script imports the csv module and defines a list of employee data. It then uses the open() function to create a file named "sample.txt" in write mode ("w") and writes the data to it using the csv.writer. Finally, it opens the file in read mode ("r") and prints each line.

```
import csv

data=[
    ["EmpID","Name","Department","Location"],
    ["E1001","Asha Rao","Data Science","Mumbai"],
    ["E1002","Rahul Mehta","IT Support","Hyderabad"],
    ["E1003","Neha Singh","Human Resources","Hyderabad"],
    ["E1004","Vikram Das","Finance","Mumbai"],
    ["E1005","Priya Kapoor","Marketing","Hyderabad"]
]

with open("sample.txt","w") as file:
    writer=csv.writer(file)
    writer.writerows(data)

with open("sample.txt","r") as file:
    reader=csv.reader(file)
    for line in file:
        print(line)
```

- Display the file



The screenshot shows a Python shell window titled "IDLE Shell 3.13.3". The shell displays the output of the script, which is the content of "sample.txt". The output is a list of employee data, with each line printed on a new line.

```
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.

>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/filesOp.py =====
EmpID,Name,Department,Location

E1001,Asha Rao,Data Science,Mumbai

E1002,Rahul Mehta,IT Support,Hyderabad

E1003,Neha Singh,Human Resources,Hyderabad

E1004,Vikram Das,Finance,Mumbai

E1005,Priya Kapoor,Marketing,Hyderabad

>>> |
```

- Program to check if file exists and display the list of unique city names – using try,except,set functions

```
filename=input("Enter the file name:")
city=set()
try:
    if(os.path.isfile(filename)):
        with open(filename,"r") as file:
            reader=csv.reader(file)
            next(reader)
            for row in reader:
                city.add(row[3])
            print("Unique City Name:",city)
except FileNotFoundError as err:
    print("File Not Found")
```

Activate Windows
Go to Settings to activate Windows.

Sample Input/Output:

Sample Input: Enter path to a .txt file: sample.txt

Sample Output: < all unique city names line by line >

- Output for the above program



```
IDLE Shell 3.13.3 172.22.60.225
File Edit Shell Debug Options Window Help
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/filesOp.py =====
EmpID,Name,Department,Location

E1001,Asha Rao,Data Science,Mumbai

E1002,Rahul Mehta,IT Support,Hyderabad

E1003,Neha Singh,Human Resources,Hyderabad

E1004,Vikram Das,Finance,Mumbai

Enter the file name:sample.txt
Unique City Name: {'Hyderabad', 'Mumbai'}
>>>
```

Activate Windows
Go to Settings to activate Windows.

PROGRAM 4: :

List Methods — Clean & Normalize Shopping List Objective:

Use only list methods (append, extend, insert, remove, pop, index, count, sort, reverse, slicing).

Requirements:

- Input: a raw list like [" Milk", "eggs", "MILK ", "bread", "Eggs", " butter "].
- Trim whitespace, convert to lowercase, and remove duplicates while preserving order (no set).
- Print final sorted list and also reversed order.

Sample Input/Output:

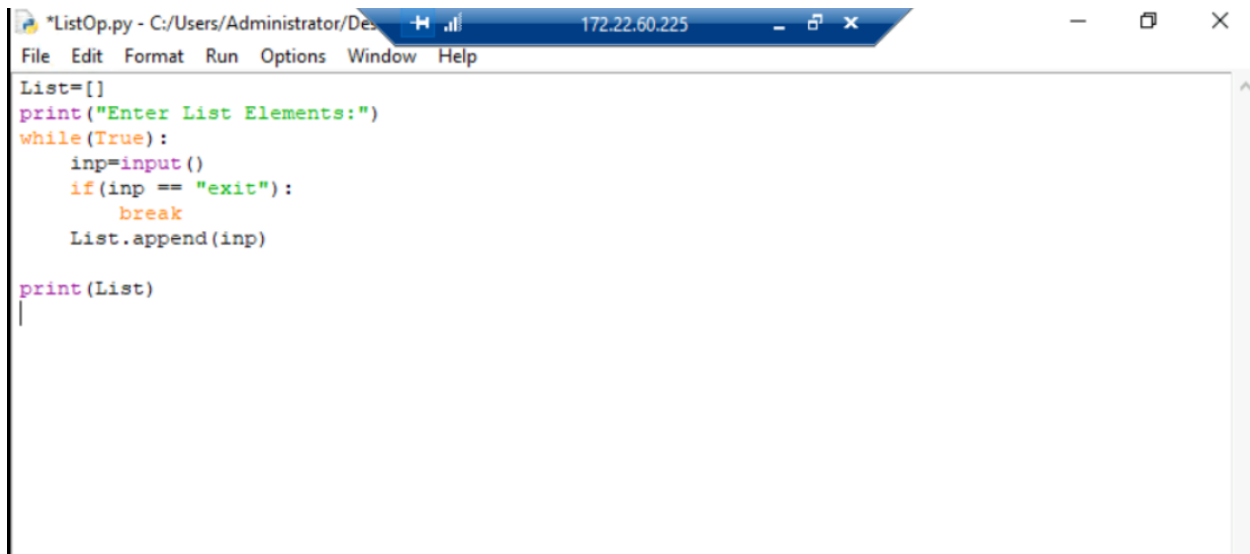
Sample Input: [" Milk", "eggs", "MILK ", "bread", "Eggs", " butter "]

Sample Output: Counts: milk: 2, eggs: 2, bread: 1, butter: 1

Clean list (sorted): ['bread', 'butter', 'eggs', 'milk']

Reversed: ['milk', 'eggs', 'butter', 'bread']

- Creating and displaying the list



```
*ListOp.py - C:/Users/Administrator/Desktop/172.22.60.225
File Edit Format Run Options Window Help
List=[]
print("Enter List Elements:")
while(True):
    inp=input()
    if(inp == "exit"):
        break
    List.append(inp)
print(List)
```

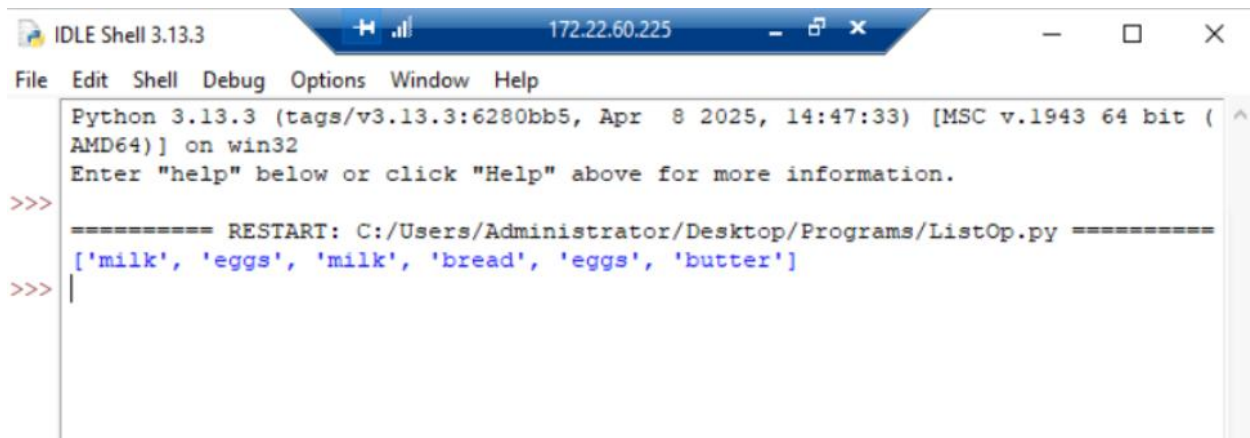
```
IDLE Shell 3.13.3 172.22.60.225
File Edit Shell Debug Options Window Help
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/ListOp.py =====
Enter List Elements:
Milk
eggs
MILK
bread
Eggs
butter
exit
['Milk', 'eggs', 'MILK', 'bread', 'Eggs', 'butter']
>>>
```

Activate Windows
Go to Settings to activate Windows.

- Creating the Cleaned list with given specification i.e lowercase

```
List2=[]
for item in List:
    List2.append(item.lower())

print(List2)
```



```
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.

>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/ListOp.py =====
['milk', 'eggs', 'milk', 'bread', 'eggs', 'butter']
>>>
```

- Program to get count of items present in the list

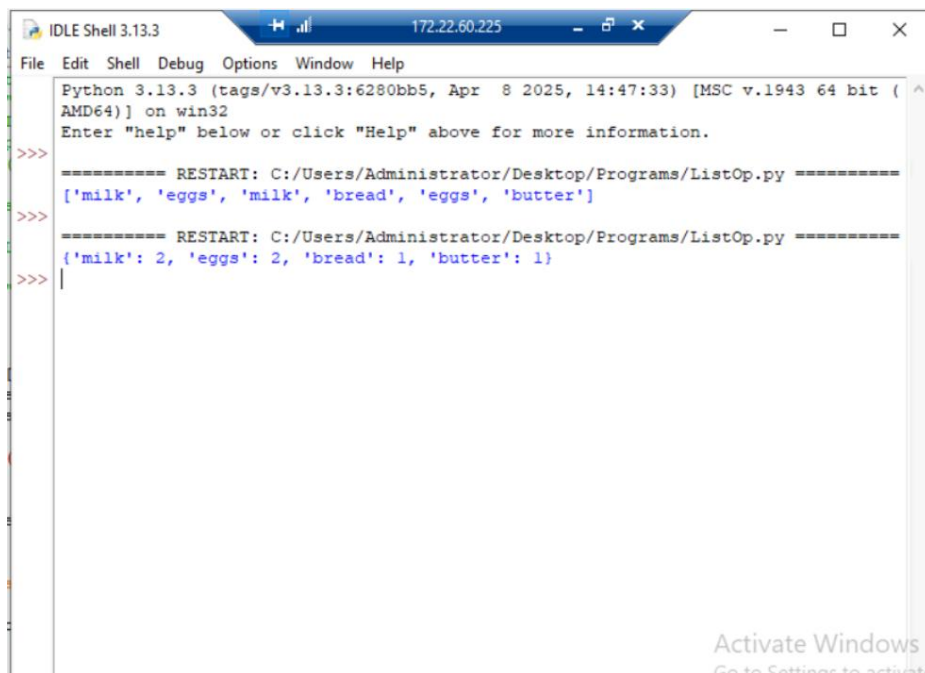


```
ct={}

for item in List2:
    if item in ct:
        ct[item]+=1
    else:
        ct[item]=1
print(ct)
```

Activate Windows
Go to Settings to activate Windows.

Ln: 28 Col: 0



```
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.

>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/ListOp.py =====
['milk', 'eggs', 'milk', 'bread', 'eggs', 'butter']
>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/ListOp.py =====
{'milk': 2, 'eggs': 2, 'bread': 1, 'butter': 1}
>>>
```

Activate Windows
Go to Settings to activate Windows.

- Program to display unique items present in the list, Sort the list and reverse the list

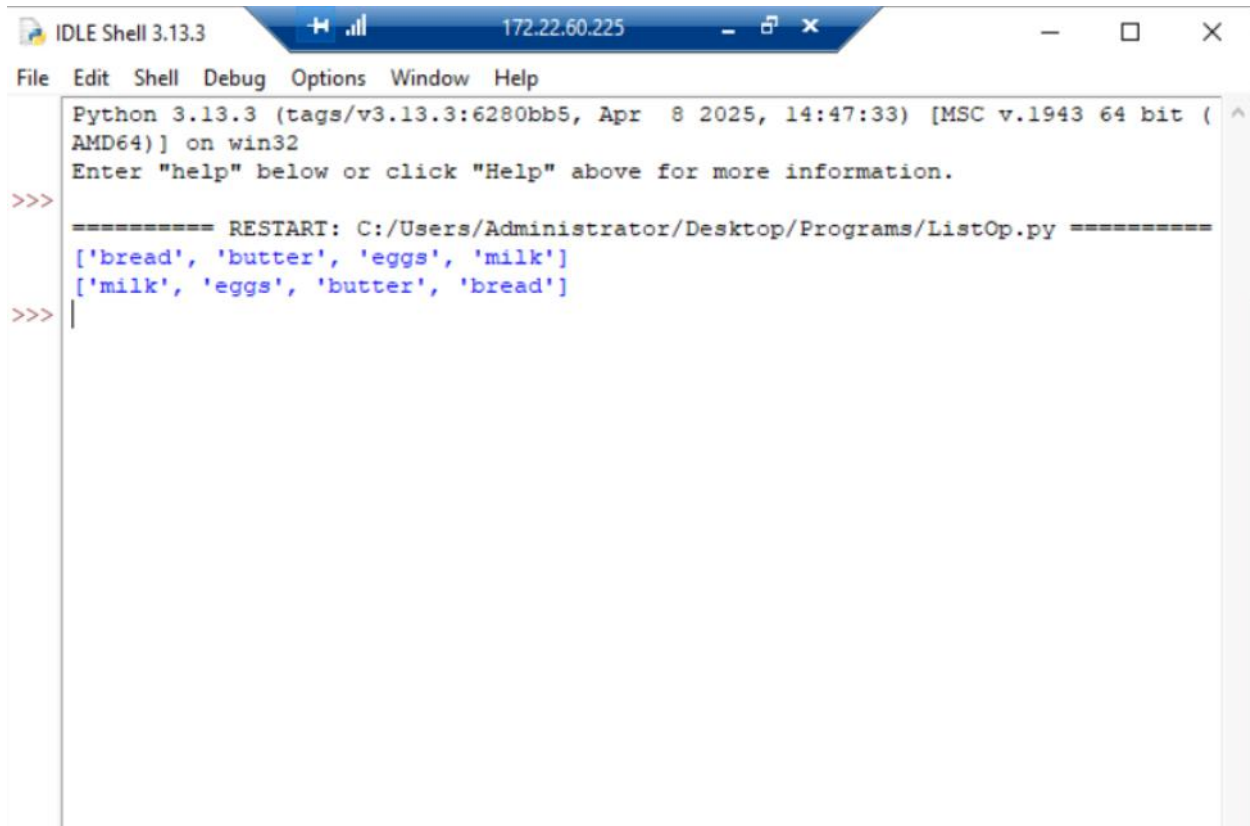
```
unique_list=[]
for item in List2:
    if item not in unique_list:
        unique_list.append(item)

unique_list.sort()
print(unique_list)

unique_list.reverse()
print(unique_list)
```

Activate Windows
Go to Settings to activate
Windows.

Ln: 26 Col: 18



```
IDLE Shell 3.13.3 172.22.60.225
File Edit Shell Debug Options Window Help
Python 3.13.3 (tags/v3.13.3:6280bb5, Apr 8 2025, 14:47:33) [MSC v.1943 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
===== RESTART: C:/Users/Administrator/Desktop/Programs/ListOp.py =====
['bread', 'butter', 'eggs', 'milk']
['milk', 'eggs', 'butter', 'bread']
>>>
```