

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

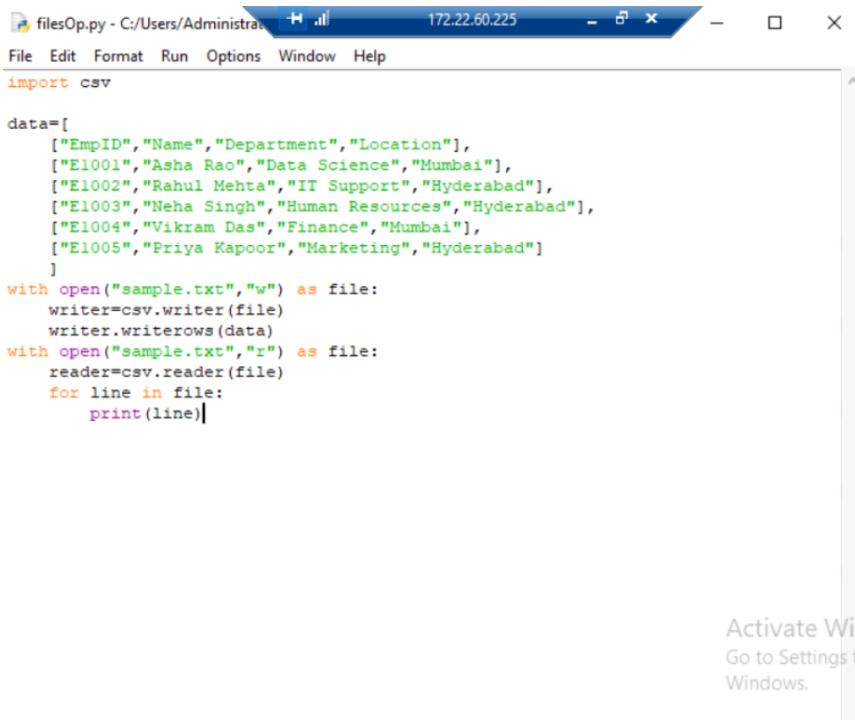
E1004,Vikram Das,Finance,Mumbai

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



```

filesOp.py - C:/Users/Administrat... 172.22.60.225 - ✎ X
File Edit Format Run Options Window Help
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)

```

The screenshot shows a Python script named 'filesOp.py' running in a terminal window. The code imports the 'csv' module and defines a list 'data' containing employee information. It then writes this data to a file named 'sample.txt' using 'writerows'. Finally, it reads the file back in using 'reader' and prints each row to the console.

- Display the file



```

IDLE Shell 3.13.3 172.22.60.225 - ✎ X
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

E1005,Priya Kapoor,Marketing,Hyderabad

```

The screenshot shows the output of the 'filesOp.py' script in the IDLE shell. The script has been run again, and its output is displayed. The data from 'sample.txt' is printed line by line, showing the employee ID, name, department, and location for each employee.

- 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")

```

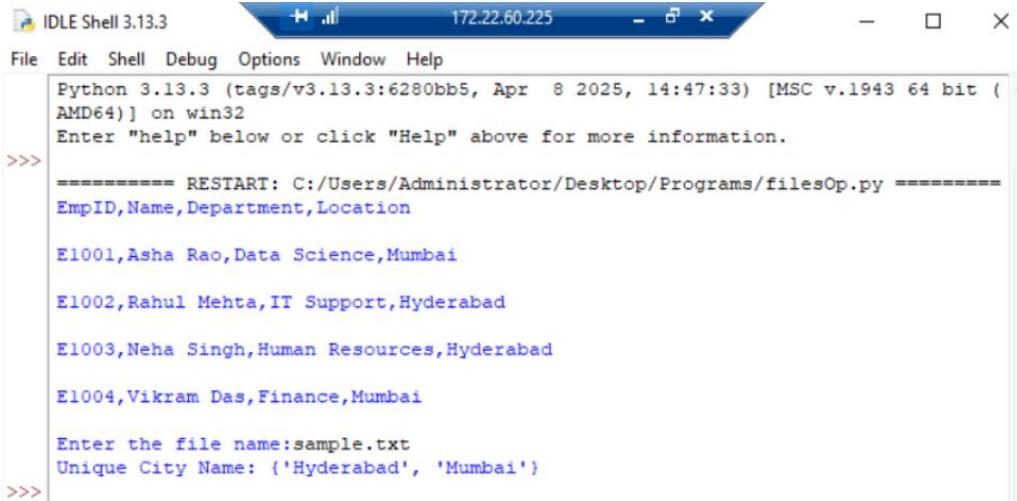
Activate Windows  
Go to Settings to activate Windows.

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 - x
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'}
>>>

```

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## 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:

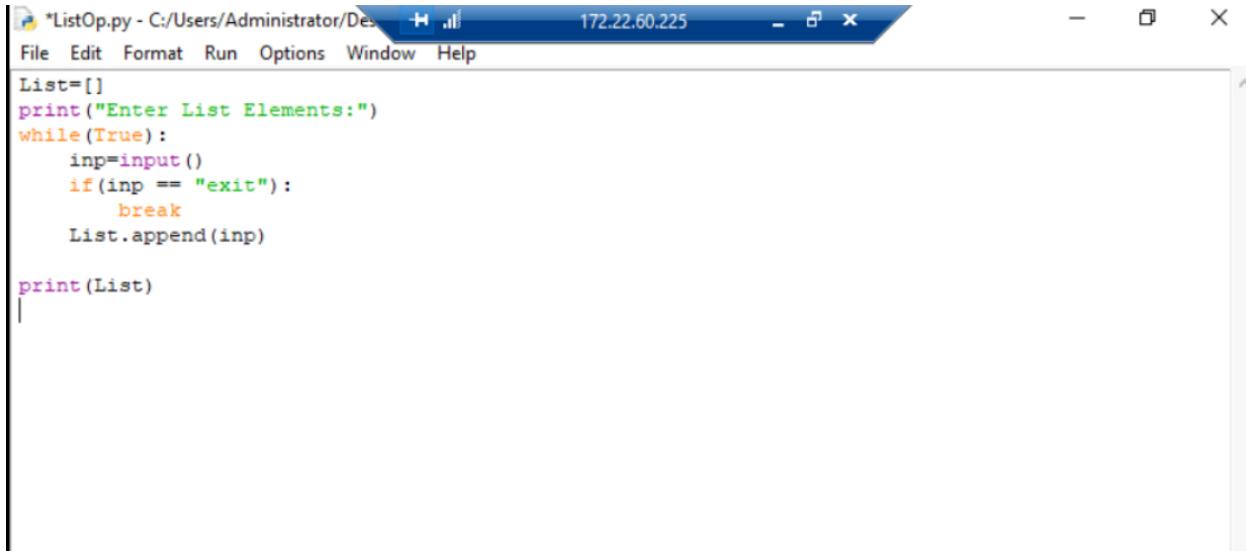
Sample Input: [" Milk", "eggs", "MILK ", "bread", "Eggs", " butter "]

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 - x 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 Window  
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Windows.

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

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

print(List2)
```

IDLE Shell 3.13.3

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 =====
['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)
```

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Go to Settings to activate Windows.

Ln: 28 Col: 0

IDLE Shell 3.13.3

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

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- 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

The screenshot shows the IDLE Shell 3.13.3 interface. The title bar reads "IDLE Shell 3.13.3" and the status bar shows the IP address "172.22.60.225". The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The main window displays Python code and its output:

```
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']
>>>
```