

UPES PYTHON LAB ASSIGNMENT

EXPERIMENT 7&8

NAME – ANMOL YADAV

SAP ID – 500083814

BATCH – B8

QUESTION 1:

Q1. Write a Python program to:

1. read a file.
2. add backslash (\) before every double quote in the file contents.
3. Write it to another file in the same folder.
4. Print the contents of both the files.

Sol :

```
import os
print(os.getcwd())
with open("testfile1.txt","w") as f:
    f.write('jack said, "Hello Pune".')

with open("testfile1.txt","r") as f:
    data1 = f.read()
    print(data1)
with open("testfile2.txt","w") as g:
    g.write(data1.replace('"', '\\\\"'))
with open("testfile2.txt","r") as g:
    data2 = g.read()
    print(data2)
```

Output:

```
C:\Users\user\OneDrive\Desktop
jack said, "Hello Pune".
jack said, \"Hello Pune\".
>>> |
```

QUESTION 2:

Q2. Consider a file 'rhyme.txt' in D Drive with following text:

```
Jingle bells jingle bells  
Jingle all the way  
Oh what fun it is to ride  
In a one horse open sleigh  
Jingle bells jingle bells  
Jingle all the way
```

Write a Python program to count the words in the file using a dictionary (use space as a delimiter). Find unique words and the count of their occurrences (ignoring case). Write the output in another file "words.txt" at the same location.

Sol:

```
dic = {}  
count = 0  
with open ("rhyme.txt","r") as f:  
    for str in f:  
        str = str.strip()  
        str = str.upper()  
        words =str.split(" ")  
        for word in words:  
            if word in dic:  
                dic[word] =dic[word]+1  
            else:  
                dic[word] = 1  
for key in list(dic.keys()):  
    print(key,":",dic[key])  
    count=count+dic[key]  
print("total words :", count)  
|
```

Output:

```
JINGLE : 6
BELLS : 4
ALL : 2
THE : 3
WAY : 2
OH : 1
WHAT : 1
FUN : 1
IT : 1
IS : 1
TO : 1
RIDE : 1
IN : 1
ONE-HORSE : 1
OPEN : 1
SLEIGH : 1
total words : 28
>>> |
```

QUESTION 3:

Q3. Assume a file city.txt with details of 5 cities in given format (cityname population(in lakhs) area(in sq KM)):

Example:

Dehradun 5.78 308.20

Delhi 190 1484

.....

Open file city.txt and read to:

- Display details of all cities
- Display city names with population more than 10Lakhs

Display sum of areas of all cities

SOL:

```
1 with open("city.txt", 'r') as f:
2     print("details of all cities:")
3     data = f.read()
4     print(data)
5
6 with open("city.txt", 'r') as f:
7     print("\ncities population more than 10lac:\ncity\tpopulation(in lac.)")
8     sum = 0
9     for i in f:
10        arr = i.split(" ")
11        sum += float(arr[2])
12        if float(arr[1]) > 10:
13            print(arr[0] + "\t" + arr[1])
14    print(f"\nsun of areas of all cities={sum}sq KM")
```

Output:

details of all cities:

Dehradun 5.78 308.20

Haridwar 8.54 404

Aligarh 16.68 610

Bhopal 12.44 480

karnal 4.88 550

cities population more than 10lac:

city population(in lac.)

Aligarh 16.68

Bhopal 12.44

sum of areas of all cities=2352.2sq KM
