

Experiment No.04

AIM:- Write a python program that counts the lines and characters in a file (similar in spirit to part of what wc does on Unix). With your text editor, code a Python module called mymod.py that exports three top-level names:

- A countLines(name) function that reads an input file and counts the number of lines in it (hint: file.readlines does most of the work for you, and len does the rest, though you could count with for and file iterators to support massive files too).
- A countChars(name) function that reads an input file and counts the number of characters in it (hint: file.read returns a single string, which may be used in similar ways).
- A test(name) function that calls both counting functions with a given input filename. Such a filename generally might be passed in, hardcoded, input with the input built-in function.

```
In [29]: # EXECUTE THIS ONE FIRST!

import os
import itertools
# Constants for the exercises:
WORKING_DIR = os.getcwd()
DATA_DIR = os.path.join(os.path.dirname(WORKING_DIR), 'data')
in_file = os.path.join(DATA_DIR, 'abc.txt')
```

```
In [30]: def Count_names1(in_file):
        with open(in_file, "r") as f:
            d = dict()
            for line in f:
                line = line.strip()
                line = line.lower()
                words = line.split(" ")
            for w in words:
                if w in d:
                    d[w] = d[w] + 1
                else:
                    d[w] = 1
            for key in list(d.keys()):
                print(key, ":", d[key])
        Count_names1(in_file)
```

interpreter : 1

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In [31]: def Count_Line(in_file):
        count=0
        with open(in_file, 'r') as f:
            for l1 in f:
                l1=l1.split()
                count= count+ 1
            print('Number of lines',count)
        Count_Line(in_file)
```

```
def count_Chars(in_file):  
    c=0  
    with open(in_file, 'r') as f:  
        f= f.read()  
        for w in f:  
            c=c+1  
        print('Number of characters in file = ',c)  
count_Chars(in_file)
```

Number of lines 12

Number of characters in file = 264

In []: