In [1]:
```
#2. Write a Python program to print each line of a file in reverse order.
f1 = open("sample.txt", "w")

with open("sample.txt", "r") as myfile:
        data = myfile.read()
data_1 = data[::-1]
f1.write(data_1)
f1.close()
print("done")
```

```
done
```

In [2]:
```
#3. Write a Python program to print date, time for today and now
import datetime

now = datetime.datetime.now()
print("Current date and time : ")
print(now.strftime("%d-%m-%Y %H:%M:%S"))
```

```
Current date and time :
28-02-2022 11:39:37
```

In [3]:
```
#1. Write a Python program to append text to a file and display the text.
testfile = open("sample.txt", "a")

testfile.write("\n welcome to python practical")
testfile.close()

appended_file = open("sample.txt", "r")
print(appended_file.read())
```

```
 welcome to python practical
```

In [4]:
```
#3. Write a Python script to print the current date in following format “Sun May 29 02:26:23
#IST 2017”
import time
ltime = time.localtime()
print(time.strftime("%a %b %d %H:%M:%S %Z %Y", ltime))
```

```
Mon Feb 28 11:40:50 Eastern Standard Time 2022
```

In [5]:
```
#2. Write a Python program to compute the number of characters, words and lines in a file.
file = open("sample.txt","r")

no_of_lines = 0
no_of_words = 0
no_of_char = 0

for line in file:
    line = line.strip("\n")
    words = line.split()

    no_of_lines += 1
    no_of_words += len(words)
    no_of_char += len(line)

file.close()
print("lines:", no_of_lines, "words:", no_of_words, "char:", no_of_char)
```

```
lines: 2 words: 4 char: 28
```

In [6]:
```
#1. Write a Python program to read an entire text file.
def file_read(sample):
    txt = open(sample)
    print(txt.read())

file_read("sample.txt")
```

```
 welcome to python practical
```

In [7]:
```
#3. Write a Python program to append text to a file and display the text.
def file_read(fname):
        from itertools import islice
        with open(fname, "w") as myfile:
                myfile.write("Python practical\n")
                myfile.write("Assignment 4")
        txt = open(fname)
        print(txt.read())
file_read('sample1.txt')
```

```
Python practical
Assignment 4
```

In [8]:
```
#4. Write a Python program to read last n lines of a file.
def LastNlines(fname, N):
    with open(fname) as file:
        for line in (file.readlines() [-N:]):
            print(line, end ='')
if __name__ == '__main__':
    fname = 'sample1.txt'
    N = 3
    try:
        LastNlines(fname, N)
    except:
        print('File not found')
```

```
Python practical
Assignment 4
```

In [9]:
```
#5. Write a Python program to read a file line by line and store it into a list.
def file_read(fname):
        with open(fname) as f:
                content_list = f.readlines()
                print(content_list)

file_read('sample1.txt')
```

```
['Python practical\n', 'Assignment 4']
```

In [10]:
```
#6. Write a Python program to read a file line by line store it into a variable.
def file_read(fname):
        with open (fname, "r") as myfile:
                data=myfile.readlines()
                print(data)
file_read('sample1.txt')
```

```
['Python practical\n', 'Assignment 4']
```

In [11]:
```
#7. Write a Python program to read a file line by line store it into an array.
def file_read(fname):
        content_array = []
        with open(fname) as f:
                for line in f:
                        content_array.append(line)
                print(content_array)

file_read('sample1.txt')
```

```
['Python practical\n', 'Assignment 4']
```

In [12]:
```
#8. Write a python program to find the longest words.
def longest_word(filename):
    with open(filename, 'r') as infile:
            words = infile.read().split()
    max_len = len(max(words, key=len))
    return [word for word in words if len(word) == max_len]

print(longest_word('sample1.txt'))
```

```
['Assignment']
```

In [13]:
```
#9. Write a Python program to count the number of lines in a text file.
def file_lengthy(fname):
        with open(fname) as f:
                for i, l in enumerate(f):
                        pass
        return i + 1
print("Number of lines in the file: ",file_lengthy("sample1.txt"))
```

```
Number of lines in the file:  2
```

In [14]:
```
#10. Write a Python program to count the frequency of words in a file.
from collections import Counter
def word_count(fname):
        with open(fname) as f:
                return Counter(f.read().split())

print("Number of words in the file :",word_count("sample1.txt"))
```

```
Number of words in the file : Counter({'Python': 1, 'practical': 1, 'Assignment': 1, '4': 1})
```

In [15]:
```
#11. Write a Python program to get the file size of a plain file.
def file_size(fname):
        import os
        statinfo = os.stat(fname)
        return statinfo.st_size

print("File size in bytes of a plain file: ",file_size("sample1.txt"))
```

```
File size in bytes of a plain file:  30
```

In [16]:
```
#12. Write a Python program to write a list to a file.
color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']
with open('abc.txt', "w") as myfile:
        for c in color:
                myfile.write("%s\n" % c)

content = open('abc.txt')
print(content.read())
```

```
Red
Green
White
Black
Pink
Yellow
```

In [17]:
```
#13. Write a Python program to copy the contents of a file to another file .
color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow','Blue']
with open('abc.txt', "w") as myfile:
        for c in color:
                myfile.write("%s\n" % c)

content = open('abc.txt')
print(content.read())
```

```
Red
Green
White
Black
Pink
Yellow
Blue
```

In [18]:
```
#14. Write a Python program to combine each line from first file with the corresponding line in second file
with open('abc.txt') as fh1, open('sample1.txt') as fh2:
    for line1, line2 in zip(fh1, fh2):
```

```
        # line1 from abc.txt, line2 from test.txtg
        print(line1+line2)
```

```
Red
Python practical

Green
Assignment 4
```

In [19]:

```
#15. Write a Python program to remove newline characters from a file
import random
def random_line(fname):
    lines = open(fname).read().splitlines()
    return random.choice(lines)
print(random_line('sample1.txt'))
```

```
Assignment 4
```

In [20]:

```
#16. Write a Python program that takes a text file as input and returns the number of words of a given text file.
#Note: Some words can be separated by a comma with no space.
import random
def random_line(fname):
    lines = open(fname).read().splitlines()
    return random.choice(lines)
print(random_line('sample1.txt'))
```

```
Python practical
```

In [21]:

```
#17. Write a Python program to extract characters from various text files and puts them into a list.
def remove_newlines(fname):
    flist = open(fname).readlines()
    return [s.rstrip('\n') for s in flist]

print(remove_newlines("sample1.txt"))
```

```
['Python practical', 'Assignment 4']
```

In [22]:

```
#18. Write a python program to get Current Time
from datetime import *
import pytz


tz_INDIA = pytz.timezone('Asia/Kolkata')
datetime_INDIA = datetime.now(tz_INDIA)
print("INDIA time:", datetime_INDIA.strftime("%H:%M:%S"))
```

```
INDIA time: 22:16:02
```

In [23]:

```
#19. Get Current Date and Time using Python
import datetime
current_time = datetime.datetime.now()
print ("Time now  : ", end = "")
print (current_time)
```

```
Time now  : 2022-02-28 11:46:17.257419
```

In [24]:

```
#20. Write a python | Find yesterday's, today's and tomorrow's date
from datetime import datetime, timedelta
presentday = datetime.now()
yesterday = presentday - timedelta(1)
tomorrow = presentday + timedelta(1)
print("Yesterday = ", yesterday.strftime('%d-%m-%Y'))
print("Today = ", presentday.strftime('%d-%m-%Y'))
print("Tomorrow = ", tomorrow.strftime('%d-%m-%Y'))
```

```
Yesterday =  27-02-2022
Today =  28-02-2022
Tomorrow =  01-03-2022
```

In [25]:
```
#21. Write a python program to convert time from 12 hour to 24 hour format
def convert24(str1):
    if str1[-2:] == "AM" and str1[:2] == "12":
        return "00" + str1[2:-2]
    elif str1[-2:] == "AM":
        return str1[:-2]
    elif str1[-2:] == "PM" and str1[:2] == "12":
        return str1[:-2]
    else:
        return str(int(str1[:2]) + 12) + str1[2:8]
print(convert24("11:05:45 PM"))
```

```
23:05:45
```

In [26]:
```
#22. Write a python program to find difference between current time and given time
def difference(h1, m1, h2, m2):
    t1 = h1 * 60 + m1
    t2 = h2 * 60 + m2
    if (t1 == t2):
        print("Both are same times")
        return
    else:
        diff = t2-t1
    h = (int(diff / 60)) % 24
    m = diff % 60
    print(h, ":", m)
if __name__ == "__main__":
    difference(7, 20, 9, 45)
    difference(15, 23, 15, 54)
```

```
2 : 25
0 : 31
```

In [27]:
```
#25. Find number of times every day occurs in a Year
import datetime
import calendar
def day_occur_time(year):
    days = [ "Monday", "Tuesday", "Wednesday","Thursday", "Friday", "Saturday","Sunday" ]
    L = [52 for i in range(7)]
    pos = -1
    day = datetime.datetime(year, month = 1, day = 1).strftime("%A")
    for i in range(7):
        if day == days[i]:
            pos = i
    if calendar.isleap(year):
        L[pos] += 1
        L[(pos+1)%7] += 1
    else:
        L[pos] += 1
    for i in range(7):
        print(days[i], L[i])
year = 2022
day_occur_time(year)
```

```
Monday 52
Tuesday 52
Wednesday 52
Thursday 52
Friday 52
Saturday 53
Sunday 52
```

In [ ]:
```
```