Date : 22 June 2019

Day Objectives

- File Handling
    - Basic File Data Processing
        - Accessing and Modifying File Data
    - Problems related to Accessing and Modifying File Data
    - Character Count
    - Line Count (Number files or characters in a file Count that)
    - File size program
    - Word Count (How do we count the words in a file)
    - Unique Word Count

In [25]:

```python
# Read a File - File should Exist in some part of the sotorage (Read Mode)

# Write to a File - Existing( append mode)  or New File(Write mode)

def readFile(filePath):
    with open(filePath, 'r') as f:
        filedata = f.read()
    return filedata

filePath = 'Data Files/data.txt'
print(readFile(filePath))
```

```
name1,9888588418,name22344@gmail.com
```

In [1]:

```python
import re
def wordcount(filePath):
    pattern='[,\n]'
    #filepath='Data Files\data.txt'
    filedata =readFile(filePath)
    count=len(re.split(pattern,filedata))
    return count
wordcount(filePath)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-1-8fd7cc33267f> in <module>
      6     count=len(re.split(pattern,filedata))
      7     return count
----> 8 wordcount(filePath)

NameError: name 'filePath' is not defined
```

In [8]:

```
# Read a File - File should Exist in some part of the sotorage (Read Mode)

# Write to a File - Existing( append mode)  or New File(Write mode)
def readFile(filePath):
    with open(filePath, 'r') as f:
        filedata = f.read()
    return filedata

filePath = 'Data Files/data.txt'
print(readFile(filePath))
```

```
name1,9888588418,name22344@gmail.com
```

In [ ]:

```

```

In [2]:

```
# Function to find the number of lines in a file
def LileCount(filePath):
    c=0
    with open(filePath, 'r') as f:
        c=c+1
        print(c)

filePath = 'Data Files/data.txt'
LileCount(filePath)
```

```
1
```

In [52]:

```
# Function to count the number of character in a file
def charCount(filePath):
    c=0
    with open(filePath, 'r') as f:
        filedata=f.read()
        for i in range (1,len(filedata)):
            #print(len(filedata))
            c=c+1
        print(c)


filePath = 'Data Files/data.txt'
charCount(filePath)
```

```
35
```

In [48]:

```python
# Function to find the size of the character count
def SizeOfFile(filePath):
    c=0
    with open(filePath, 'r') as f:
        filedata=f.read()
        for i in range (1,len(filedata)):
            c=c+1
        print(c*4)

filePath = 'Data Files/data.txt'
SizeOfFile(filePath)
```

```
140
```

In [56]:

```python
# Function to find the word count of the data in a file
import re
def wordcount(filePath):
    pattern='[,\n]'
    #filepath='Data Files\data.txt'
    filedata =readFile(filePath)
    count=len(re.split(pattern,filedata))
    print(re.split(pattern,filedata))
    return count
wordcount(filePath)
```

```
['name', '19888588418', 'name22344@gmail.com']
```

Out[56]:

```
3
```

In [41]:

```python
# Function to find the unique words of the data in a file
def Unique(filePath):
    unique=[]
    with open(filePath, 'r') as f:
        filedata=f.read()
        for i in filedata:
            if i not in unique:
                unique.append(i)
        print(unique)

filePath = 'Data Files/data.txt'
Unique(filePath)
```

```
['n', 'a', 'm', 'e', '1', '9', '8', '5', '4', '2', '3', '@', 'g', 'i', 'l',
'.', 'c', 'o']
```

In [57]:

```python
# Function to fet unique elements in a list
# [1,2,3,3,2,1]------>[1,2,3]
# Create empty unique list[]
def uniqueData(li):
    # create an empty unique list
    unique=[]
    # for every element in the main list,
        # Checck if it exists in the unique list
        # If it does not exist,add it to unique list
        # else if it already exists ,move  on to the main list and add it to

    for element in li:
        if element not in unique:
            unique.append(element)
    return unique
li=[1,2,3,3,2,1]
uniqueData(li)

```

Out[57]:

```
[1, 2, 3]
```

In [ ]:

```

```

Print the sum of the n nubers

In [14]:

```python
numArray = map(int, input().split()) # Get the input


sum_integer = 0
# write your logic to add these 4 numbers here
for number in numArray:
    sum_integer += number

print(sum_integer) # Print the sum
```

```
1 2 3 4 5 6 7 8 9 10
55
```

sum of n numbers

In [73]:

```python
n=input()
sum=0
n1=map(int ,input().split())
for i in n1:
    sum=sum+i
print(sum)

```

```
4
1 2 3 4 5  6
21
```

Print the numbers in between the range

In [74]:

```python
L, R = map(int, input().split())
for i in range(L,R+1):
    print(i,end=" ")

```

```
5 10
5 6 7 8 9 10
```

Add the 2 list elements

In [30]:

```python
N = int(input())

# Get the array
numArray1 = list(map(int, input().split()))
numArray2 = list(map(int, input().split()))

sumArray = []
for i in range(0,N+1):
    sumArray.append(numArray1[i]+numArray2[i])
for k in sumArray:
    print(k,end=" ")
```

```
2
1 2 3
1 2 3
2 4 6
```

Sitting Arrangement

In [3]:

```
t=int(input())
for i in range(1,t+1):
    n=int(input())
    n1=n%12
    if(n1==1 or n1==6 or n1==7 or n==0):
        if(n1==1):
            t=n+11
            print(t,"WS")
        elif(n1==6):
            t=n+1
            print(t,"WS")
        elif(n1==7):
            t=n-1
            print(t,"WS")
        elif(n1==0):
            t=n-11
            print(t,"WS")
        else:
            print("no")
    elif(n1==2 or n1==5 or n1==11 or n1==8):
        if(n1==2):
            t=n+9
            print(t,"MS")
        elif(n1==5):
            t=n+3
            print(t,"MS")
        elif(n1==8):
            t=n-3
            print(t,"MS")
        elif(n1==11):
            t=n-9
            print(t,"MS")
        else:
            print(no)
    elif(n1==3 or n1==4 or n1==9 or n1==10):
        if(n1==3):
            t=n+7
            print(t,"AS")
        elif(n1==4):
            t=n+5
            print(t,"AS")
        elif(n1==9):
            t=n-5
            print(t,"AS")
        elif(n1==10):
            t=n-7
            print(t,"AS")
        else:
            print(no)


```

```
1
12
```

In [20]:

```
n=int(input())
for i in range(1,n+1):
    p,g=list(map(int ,input().split()))
    n1=int(input())



```

```
2
9 6
10
9 6
10
```

In [21]:

```
n=1%12
n

```

Out[21]:

```
1
```

Cost Of Ballons

In [26]:

```
n=int(input())
for i in range(1,n+1):
    p,g=list(map(int ,input().split()))
    n1=int(input())
    s1=0
    s2=0
    for j in range(1,n1+1):
        a,b=list(map(int,input().split()))
        s1=s1+((a*p)+(b*g))
        s2=s2+((a*g)+(b*p))
    if(s1<s2):
        print(s1)
    else:
        print(s2)
```

```
1
1 9
10
0 1
0 0
0 0
0 1
1 0
0 1
0 1
0 0
0 1
0 0
14
```

Aman and Sharma

In [28]:

```
n=int(input())
count=0
for i in range(1,n+1):
    a,b=list(map(int,input().split()))
    if(2*(22/7)*a<=100*b):
        count=count+1
print(count)
```

```
3
3 2
5 2
1 3
3
```

Find the pattern

In [50]:

```
k=int(input())
for i in range(1,k+1):
    N=int(input())
    n=list(map(int,input().split()))
    n1=max(n)
    n2=min(n)
    print(n1+n2)



```

```
2
3
1 2 3
4
11
1 2 3 4 5 6 7 8 9 11 22
23
```

In [ ]:

```

```

In [ ]:

```

```