Files:

In [4]:
```
filepath= 'Data/first.txt'
with open(filepath,'w') as f:
    f.write("Good Morning!")
```

In [ ]:
```

```

In [14]:
```
#Read numbers from a file and sum them up

with open(filepath,'r') as f:
    #print(f.readlines()) #Reads all the lines in the file
    count=0
    s=0
    for i in f:
        s += int(i)
        count += 1
    print(s/count)
```

```
5.5
```

In [15]:
```
# Count the no of lines

with open(filepath, 'r')  as f:
    linescount=0
    for i in f:
        linescount +=1
    print(linescount)
```

```
10
```

In [16]:
```
# No of words in entire file

with open(filepath,'r') as f:
    wordcount=0
    for i in f:
        l = i.split(" ")
        wordcount += len(l)
    print(wordcount)
```

```
8
```

In [20]:
```
#Another way
with open(filepath,'r') as f:
    s = f.read().split("\n")
    s = " ".join(s).split(" ")
    print(len(s))
```

```
8
```

In [27]:
```
#Character count
with open(filepath,'r') as f:
    charcount = 0
    for i in f:
        s = i.split()
        for j in s:
            charcount += len(j)
    print(charcount)
```

```
59
```

In [31]:
```
#Another way

with open(filepath,'r') as f:
    charcount = 0
    for i in f:
        s = i.strip()
        print(s)
```

```
Android Development
Python Programming
Hyper text markup language
```

In [ ]:
```

```

In [35]:
```
#using splitlines
s= "hello world"
f= s.splitlines()
f="".join(f)
print(f)
```

```
hello world
```

- s.rsplit(sep, maxsplit)

In [40]:
```
s="hello,world"
d=s.rsplit("o", 5)
print(d)
```

```
['hell', ',w', 'rld']
```

- s.rpartition(sep)

In [48]:
```
s="python programming"
d= s.rpartition('m')
print(d)
```

```
('python program', 'm', 'ing')
```

- s.partition(sep)

In [46]:
```
d= s.partition('m')
print(d)
```

```
('python progra', 'm', 'ming')
```

Type *Markdown* and LaTeX: α^2

In [52]:
```
# s*integer Return integer copies of s concatenated # 'hello' => 'hellohello
s * 3
```

Out[52]:
```
'python programmingpython programmingpython programming'
```

Contacts Application (using Dictionaries):

In [62]:
```
contacts={}
def addContact(name,phone):
    if name not in contacts:
        contacts[name] = phone
        print(name)
    else:
        print("Name can't be added")
addContact('abc',9876543210)

```

```
abc
```

In [78]:
```
addContact('def',2345678910)
```

```
def
```

In [61]:
```
contacts
```

Out[61]:
```
{'abc': 9876543210}
```

In [63]:
```
def searchContact(name):
    if name in contacts:
        print(name,"---",contacts[name])
    else:
        print("Name is not found")
searchContact("abc")
```

```
abc --- 9876543210
```

In [70]:
```
def modifyContact(name):
    if name in contacts:
        contacts['abc'] = "1234567890"
        print("updated number is : " ,contacts[name])
    else:
        print("Name can't be updated or modified")
modifyContact("abc")
```

```
updated number is :  1234567890
```

In [68]:
```
contacts
```

Out[68]:
```
{'abc': '1234567890'}
```

In [79]:
```
def deleteContact(name):
    if name in contacts:
        d=contacts.pop("def")
        print("Contact deleted",d)
    else:
        print("Contact can't be deleted")
deleteContact('def')

```

```
Contact deleted 2345678910
```

In [ ]:
```

```

In [82]:
```
#Word count in a list:

li=["hello how are you","where are you"]
wordcount=0
for i in li:
    l = i.split(" ")
    wordcount += len(l)
print(wordcount)
```

```
7
```

In [88]:
```
#Character count in a list:

charcount = 0
for i in li:
    s = i.split()
    for j in s:
        charcount += len(j)
print(charcount)
```

```
25
```

In [89]:
```
#Line count in a list:

linescount=0
for i in li:
    linescount +=1
print(linescount)
```

```
2
```

In [93]:
```
# Binary to decimal:

a = input('Enter a binary number : ')
ar = [int(i) for  i in a]
ar  = ar[::-1]
res = []
for i in range(len(ar)):
    res.append(ar[i]*(2**i))
sum_res = sum(res)
print('Decimal Number is : ',sum_res)
```

```
Enter a binary number : 101101
Decimal Number is :  45
```

In [92]:
```
#Another way:

dec = 8

print("The decimal value of",dec,"is:")
print(bin(dec),"in binary.")
print(oct(dec),"in octal.")
print(hex(dec),"in hexadecimal.")
```

```
The decimal value of 8 is:
0b1000 in binary.
0o10 in octal.
0x8 in hexadecimal.
```

In [ ]:
```

```

In [95]:
```
#Prime factors of a number :

Number = int(input(" Please Enter any Number: "))

for i in range(2, Number + 1):
    if(Number % i == 0):
        isprime = 1
        for j in range(2, (i //2 + 1)):
            if(i % j == 0):
                isprime = 0
                break

        if (isprime == 1):
            print(" %d is a Prime Factor of a Given Number %d" %(i, Number))
```

```
Please Enter any Number: 100
2 is a Prime Factor of a Given Number 100
5 is a Prime Factor of a Given Number 100
```

In [ ]:
```

```

In [100]:
```
def printKPFNums(A, B, K) :

    # Count prime factors
    # of all numbers
    # till B.
    prime = [ True]*(B+1)
    p_factors= [ 0 ]*(B+1)
    for p in range(2,B+1) :
        if (p_factors[p] == 0)  :
            for i in range(p,B+1,p) :
                p_factors[i] = p_factors[i] + 1

    # Print all numbers with
    # k prime factors
    for i in range(A,B+1) :
        if (p_factors[i] == K) :
            print( i ,end=" ")


# Driver code
A = int(input())
B = int(input())
K = int(input())
printKPFNums(A, B, K)
```

```
30
40
3
30
```

In [ ]:
```

```

In [122]:
```
import re
t=int(input())
for i in range(1,t+1):
    n=input()
    pattern='[.][com]'
    for i in n:
        if re.match(pattern,n):
            print(True)
    else:
        print(False)

```

```
1
http://hackerearth.com (http://hackerearth.com)
False
```

In [ ]:
```

```

In [140]:
```
import re
t=int(input())
for i in range(1,t+1):
    str = input()

    #Check if the string ends with "Spain":

    x = re.findall("com\Z", str)

    #print(x)
    c=0
    for j in str:
        if (x) :
            c+=1
print("Yes, there is a match!",c)

```

```
2
ckds.com
dklaw.com
Yes, there is a match! 9
```

In [ ]:
```
1
```

In [ ]:
```
1
```