File Handling Functions in Python

Built in methods:

- open()
- close()

File contains 3 types of modes

- r ->Read
  - file.read() -->Total file as string
  - readline() -->At a time single line as string
  - readlines() -->
- w ->write
  - write()
- a ->append

In [17]:
```
f=open("demo.txt","w")
f2=f.write("Wright brothers,Einstein,APJ")
print(f2)
f.close()
```

```
28
```

In [32]:
```
f=open("demo.txt","r")
f2=f.read()
print(f2)
f3=f.readline()
print(f3)
f4=f.readlines()
print(f4)
f.close()
```

```
Wright brothers
Einstein
APJ
Keerthi

[]
```

In [26]:
```
f=open("demo.txt","r")
f3=f.readline()
print(f3)
##f4=f.readlines()
##print(f4)
f.close()
```

```
Wright brothers
```

In [30]:
```
f=open("demo.txt","r")
f4=f.readlines()
print(f4)
f.close()
```

```
['Wright brothers\n', 'Einstein\n', 'APJ\n', 'Keerthi']
```

In [34]:
```
## File handling using Functions
```

In [39]:
```
def readfile(filename):
    with open(filename,"r") as f:
        data=f.read()
        print(type(f))
    return data
readfile("demo.txt")
```

```
<class '_io.TextIOWrapper'>
```

Out[39]:
```
'Wright brothers\nEinstein\nAPJ\nKeerthi'
```

In [40]:
```
d=open("demo.txt","r")
for i in d.readline():
    print(i)
d.close()
```

```
W
r
i
g
h
t

b
r
o
t
h
e
r
s
```

In [41]:
```
d=open("demo.txt","r")
for i in d.readlines():
    print(i)
d.close()
```

```
Wright brothers

Einstein

APJ

Keerthi
```

In [50]:
```
d=open("demo.txt","r")
for i in d.read():
    print(i)
d.close()
```

```
W
r
i
g
h
t

b
r
o
t
h
e
r
s


E
i
n
s
t
e
i
n


A
P
J


K
e
e
r
t
h
i
```

In [49]:
```
s=open("demo.txt","r")
w=s.read(5)
s.close()
print(w)
```

```
Wrigh
```

write a program to count no.of lines and characters in a file

In [99]:
```
a=open("demo.txt","r")
c=0
z=0
for i in a.readlines():
    c=c+1
    for j in i:
        z=z+1
print("total no of characters:",z)
print("total no.of lines :",c)
```

```
total no of characters: 36
total no.of lines : 4
```

In [ ]:
```
# write a program to count no of words in a file
```

In [127]:
```
import re
a=open("demo.txt","r")
spaces=0
for i in a.readlines():
    for j in i:
        if re.search(" ",j):
            spaces=spaces+1
    spaces=spaces+1
print(spaces)
a.close()
```

```
1
```

In [128]:
```
# write a program to search a name in contacts
import re
def searchcontact(name):
    with open("contacts.txt","r") as f:
        for i in f.readlines():
            if re.search(name,i):
                print(i)
searchcontact("k.v.l.keerthi")
```

```
k.v.l.keerthi 9912358058 n140079@rguktn.ac.in
```

In [139]:
```
r=open("demo.txt","a")
f=r.write(" hel")
print(f)
r.close()
```

```
4
```

In [140]:
```
# write a program to read file line by line and store in a list
l=[]
s=open("demo.txt","r")
for i in s.readlines():
    l.append(i)
print(l)

s.close()
```

```
['hello\n', 'hi\n', 'how \n', 'are\n', 'you\n', 'keerthihel hel hel']
```

In [163]:
```
# write a program count the frequenecy of each word
t=open("demo.txt","r")
s=[]
d={}
for i in t.readlines():
    s.extend(i.split())
print(s)
for k in range(0,len(s)):
    for j in range(1):
        e=s.count(s[k])
        d[s[k]]=e
print(d)
```

```
['hello', 'hello', 'hello', 'hi', 'how', 'are', 'you', 'keerthihel', 'hel', 'hel
']
{'hello': 3, 'hi': 1, 'how': 1, 'are': 1, 'you': 1, 'keerthihel': 1, 'hel': 2}
```

In [ ]:
```
t=open("demo.txt","r")
s=[]
d={}
for i in t.readlines():
    s.extend(i.split())
print(s)
for k in range(0,len(s)):
    for j in range(1):
        e=s.count(s[k])
        d[s[k]]=e
print(d)
```

In [175]:
```
from collections import Counter
def Wordfreq(w):
    with open(w,"r") as f:
        return Counter(f.read().split())
print(Wordfreq("demo.txt"))
```

```
Counter({'hello': 3, 'hel': 2, 'hi': 1, 'how': 1, 'are': 1, 'you': 1, 'keerthihe
l': 1})
```

In [186]:
```
# write a program to write 10 random numbers to a file.
from random import randint
o=open("randomnumbers.txt","w")
for i in range(0,10):
    x=random.randint(1,10)
    o.write(str(x)+"\n")
o.close()
```

- tell()-->It tells total no.of characters in a file
- seek()-->To put cursor in out desired positon or to add items from the desired position onwards

In [188]:
```
x=open("contacts.txt","r")
x.read()
print(x.seek(5))
x.close()
```

```
5
```

In [191]:
```
x=open("contacts.txt","r")
x.read()
print(x.tell())
x.close()
```

```
15
```

In [194]:
```
# program to get the size of file
import os
print(os.path.getsize("new.txt"))
```

```
10
```

In [ ]:
```

```