Chap.-6 || Working with File

Methods :-

- **1. open() = file doesn't exist then it will create a file**
- **2. close()**
- **3. write() = pass a str || for a append use write()**
- **4. writelines() = pass a list**
- **5. read(size) = returns str**
- **6. readline(size) = returns first line in str**
- **7. readlines(hint) = returns list**
- **8. tell() = give pointer index**
- **9. seek(index) = set pointer**
- **10. readable()**
- **11. writable()**
- **12. closed**

In [ ]:

```
dm = open('eeeehhh.txt')
# FileNotFoundError: [Errno 2] No such file or directory: 'eeeehhh.txt'
```

In [ ]:

```
dm = open('eeeehhh.txt', 'w')
# auto-matically created a file
```

- **r = read**
- **w = write = file doesn't exist then create a file.**
- **= if exist then empty file.**
- **a = append**

In [ ]:

```python
# dm = open('demo.txt')
# UnsupportedOperation: not writable

dm = open('demo.txt', 'w')
dm.write('Python')
dm.write('Java')

dm.close()

# PythonJava
```

In [ ]:

```python
dm = open('demo.txt', 'w')
dm.write('HTML\n' + '    ' + 'CSS')
dm.close()

# HTML
#    CSS
```

In [ ]:

```python
dm = open('demo.txt', 'w')
dm.write('Python\n')
dm.writelines(['Hello\n'])
dm.writelines(['This is\n'])
dm.writelines(["Python"])
dm.close()

# Python
# Hello
# This is
# Python
```

In [ ]:

```python
dm = open('demo.txt', 'a')
dm.write('Python\n')
dm.writelines(['Hello\n'])
dm.writelines(['This is\n'])
dm.writelines(["Python"])
dm.close()

# Python
# Hello
# This is
# PythonPython
# Hello
# This is
# Python
```

In [ ]:

```
dm = open('demo.txt', 'w')
dm.write('Python\n')
dm.writelines(['Hello\n'] + ['Hiee\n'])
dm.writelines(['This is\n'])
dm.writelines(["Python"])
dm.close()

# Python
# Hello
# Hiee
# This is
# Python
```

- **default mode is read.**

In [ ]:

```
rd = open('demo.txt')
data = rd.read()
print(data)
rd.close()

# Python
# Hello
# Hiee
# This is
# Python
```

In [ ]:

```
rd = open('demo.txt')
data = rd.readlines()
print(data)
rd.close()

# ['Python\n', 'Hello\n', 'Hiee\n', 'This is\n', 'Python']
```

In [ ]:

```
rd = open('demo.txt')
data = rd.readline()
print(data)
rd.close()

# Python
```

- **Count no. of lines**

In [ ]:

```
rd = open('demo.txt','r')
data = rd.readlines()
print(len(data)) # 5
```

- **Count no. of words**

In [ ]:

```python
rd = open('demo.txt','r')
data = rd.read().split()
print(data)
# ['Python', 'Java', 'Py', 'Programme', 'Have', 'a', 'good', 'day', 'By
print(len(data)) # 10
```

- **take data from demo.txt & convert data into upper then store it into caps.txt**

In [ ]:

```python
rd = open('demo.txt')
wr = open('caps.txt', 'w')

data = rd.read().upper()

wr.write(data)
wr.close()

# PYTHON
# JAVA
# PY PROGRAMME
# HAVE A GOOD DAY
# BYE WORLD
```

- **Find index of word entered by the user.**

In [ ]:

```python
n = input("Enter Word uhh wanna to find : ")
rd = open('demo.txt')

data = rd.read()
print(data.find(n))

# Enter Word uhh wanna to find : Java
# 7
# index count including \n

# Enter Word uhh wanna to find : HTML
# -1
```

Parameters of read(), readline(), readlines()

In [ ]:

```python
rd = open('demo.txt')
data = rd.read(8)
print(data)
# Python
# J
```

In [ ]:

```
rd = open('demo.txt')
data = rd.readline(8)
print(data) # Python
```

In [ ]:

```
rd = open('demo.txt')
data = rd.readlines(8)
print(data) # ['Python\n', 'Java\n']
```

In [ ]:

```
rd = open('demo.txt')
data = rd.readlines(1)
print(data) # ['Python\n']
```

In [ ]:

```
rd = open('demo.txt')
data = rd.readlines(7)
print(data) # ['Python\n', 'Java\n']
```

In [ ]:

```
rd = open('demo.txt')
print(rd.tell()) # 0
data = rd.read()

print(rd.tell()) # 50
d1 = rd.readline()
print(d1)

# Output : Blank
```

In [ ]:

```
rd = open('demo.txt')
print(rd.read())

rd.seek(0)
print(rd.read())
```

In [ ]:

```
rd = open('demo.txt')
print(rd.tell()) # 0

data = rd.read(10)

print(data)
    # Python
    # Jav

print(rd.tell()) # 10
d1 = rd.readline()
print(d1) # a
```

In [ ]:

```python
n = int(input("Enter count : "))
cs = open('cust.txt', 'a')

for i in range(n):
    name = input("Enter Name : ")
    no = input("Enter No.: ")
    cs.write(name + ' : ' + no + '\n')

cs.close()

# Enter count : 3
# Enter Name : Romil
# Enter No.: 123
# Enter Name : Yash
# Enter No.: 456
# Enter Name : Rudra
# Enter No.: 789
```

In [ ]:

```python
cs = open('cust.txt')
data = cs.read()
print(data)
s, c = 0, 0

for i in data:
    if(i.isdigit()):
        s += int(i)
        c += 1
print('Sum :', s)
print('Average :', s/c)

# Romil : 123
# Yash : 456
# Rudra : 789

# Sum : 45
# Average : 5.0
```

In [ ]:

```python
cs = open('cust.txt')
data = cs.read().split()
print(data)

for i in data:
    if(i.isalpha()):
        print(i)

# ['Romil', ':', '123', 'Yash', ':', '456', 'Rudra', ':', '789']
# Romil
# Yash
# Rudra
```

In [ ]:

```python
f = open('cust.txt','r')
print(f.readable()) # True
print(f.writable()) # False
print(f.closed) # False

f.close()
print(f.closed) # True
```

- **r+ = replace character by character**

In [ ]:

```python
f = open('demo.txt', 'r+')
f.write('html')
print(f.read())
    # on
    # Java
    # Py Programme
    # Have a good day
    # Bye world
f.write('css')
print(f.read())
    # htmlon
    # Java
    # Py Programme
    # Have a good day
    # Bye worldcss
print(f.read())
f.close()

```

- **w+ = open empty file | for read a file use seek(0)**

In [ ]:

```python
f = open('demo.txt', 'w+')
print(f.read()) # empty
f.write('Python')
print(f.read()) # empty
f.seek(0)
print(f.read()) # Python

f.close()
```

- ## a+ = for read a file use seek(0)

In [ ]:

```python
f = open('demo.txt', 'a+')
print(f.read()) # empty
f.write('Python')
print(f.read()) # empty
f.seek(0)
print(f.read()) # PythonPython

f.close()
```

In [ ]:

```python
# Python
# Java
# Python Program
# Have a greatday
# html

f = open('demo.txt', 'r+')
print(f.read(2)) # Py
print(f.readline()) # thon
print(f.readlines(10)) # ['Java\n', 'Python Program\n']
```

P.b. - 508

In [ ]:

```python
f = open('python1.txt')
data = f.read().split()
ud = set(data)
d = {}
for i in ud:
    d[i] = data.count(i)

for i in d:
    print(i + " - " + str(d[i]), end=", ")

# friends - 2, are - 7, Life - 1, best - 1, naughty - 1, license - 1, !
# like - 2, friends, - 1, crazy, - 1, Friends - 5, not - 1, without - 2
# key - 1, We - 1, new - 1, keygen, - 1, honest, - 1, nothing - 1,
```

In [ ]:

```python
f = open('python1.txt')
data = f.read().split()
d = {}
for i in data:
    if i in d:
        d[i] += 1
    else:
        d[i] = 1
print(d)
# {'Friends': 5, 'are': 7, 'crazy,': 1, 'naughty': 1, '!': 4, 'honest,'
#  'keygen,': 1, 'friends': 2, 'license': 1, 'key': 1, 'new': 1, 'We':
#  'friends,': 1, 'Life': 1, 'is': 1, 'not': 1, 'possible': 1}
```

P.b. - 507

In [ ]:

```python
f1 = open('python1.txt')
f2 = open('python2.txt')

data1 = f1.readlines()
data2 = f2.readlines()

for i in range(len(data1)):
    for j in range(len(data1[i])):
        if data1[i][j] != data2[i][j]:
            print(f"Line Number {i+1} ColNo. {j+1}")
            break

# Output : Line Number 2 ColNo. 9
```

P.b. - 506

In [ ]:

```python
f = open('new.txt', 'w+')

while True:
    s = input("Enter Something (for quit enter END): ")
    if s != 'END':
        f.write(s + '\n')
    else:
        break

f.seek(0)
n = f.readlines()

for i in n:
    if(i[0].isupper()):
        print(i , end='')

# Output :
# Enter Something (for quit enter END): Hi Friends
# Enter Something (for quit enter END): how are you all
# Enter Something (for quit enter END): I am fine
# Enter Something (for quit enter END): hope you all are fine
# Enter Something (for quit enter END): END
# Hi Friends
# I am fine
```

Without using read, readlines method

In [ ]:

```python
f = open('new.txt', 'w+')

while True:
    data = input()
    if data=='END':
        break
    else:
        f.write(data + '\n')
f.seek(0)
for i in f:
    if(i[0].isupper()):
        print(i, end="\n")
f1.close()
```

P.b. - 505

In [9]:

```python
f1 = open('p505.txt','r')
f2 = open('p505_2.txt', 'w')

n = f1.readlines()

for i in n:
    if('#' not in i):
        f2.write(i)
    else:
        if(i[0]!="#"):
            ind=i.index("#")
            f2.write(i[:ind]+"\n")
f2.close()

# Output:
# Friends are crazy, Friends are naughty !
# Friends are like keygen,
# We are nothing without friends, Life is not possible without friends
```

P.b - 504

In [23]:

```python
f = open('504.txt')
data = f.read()
c, s = 0, 0
word = data.split()

for i in data:
    if(i == ' '):
        s += 1
    elif(i != '\n'):
        c += 1

print('No of space:', s)
print("No of word:", len(word))
print("No of character:", c+s)

# No of space: 10
# No of word: 13
# No of character: 64
```

```
No of space: 10
No of word: 13
No of character: 64
```

In [ ]:

```python

```