1.Standard Libraries

- File I/O
- Regular expression
- Datetime
- Math (Numerical and Mathematical)

2.File Handling in Python

- File:-Document containing information reaches on the permanent storage
- Different types of files:txt.doc,pdg,csv and ets...
- Input-- Keyboard
- Output-- File

3.Modes of the File I/O

- 'w'-- This Mode id used for File Writing
    - if the file is not present it creates a file and then writes the data to it

In [ ]:

4.# Function to create a file and write it to the file

```
def createFile(filename):
    f = open(filename,'w')
    for i in range(10):
        f.write('This is %d Line\n' % i)
    print("File is created and data has written")
    return
createFile('file1.txt')
```

5.ls

6.cat file1.txt

7.

```
def createfile(filename):
    f=open(filename,'w')
    f.write('Testing---\n')
    print("File is created and data has written")
    return
createfile('file2.txt')
```

8.def appendData(filename):

```
    f=open(filename,'a')



    for i in range(10):
        f.write("this is %d line\n"%i)
        print("file created and successfully data written")
        return
appendData('file2.txt')
```

9.
```
def appendData(filename):
    f = open(filename,'a')
    f.write("New Line 1\n")
    f.write("New Line 2\n")
    print("file created and successfully data written")
    return
appendData('file2.txt')
```

10.
```
# Function to read of the file
def readFileData(filename):
    f = open(filename,'r')
    if f.mode == 'r' :
        x = f.read()
        print(x)
    f.close()
    return
readFileData('file2.txt')
```

11.
```
#Function to read the file

def fileOperation(filename,mode):
            with open(filename,mode) as f:
            if f.mode == 'r':
            data = f.read()
            print(data)
            elif f.mode == 'a':
            f.write('Data to the file')
            print('The data successfully written')
            f.close()
            return
filename = input('enter the file name')
mode= input('Enter the mode of the file')
fileOperation(filename,mode)
```

12.# Data Analysis

```
# Word Count Program
def wordCount(filename,word):
    with open(filename,'r') as f:
        if f.mode == 'r' :
            x = f.read()
            li = x.split() # It's splits the string with
    cnt = li.count(word)
    return cnt
filename = input('Enter the file name : ')
word = input('Enter the word : ') # which word count you
wordCount(filename,word)
```

13.# Character count from given file

```
def charCount(filename):
    with open(filename,'r') as f:
        if f.mode == 'r':
            x = f.read()
            li = list(x)
        return len(li)
filename = input("enter the filename : ")
charCount(filename)
```

14.# Function to find the no.of lines in the iput file

```
# Input -- filename(file2.txt)
# Output -- No of Lines(12)
def countOfLines(filename):
    with open(filename,'r') as f:
        if f.mode == 'r' :
            x = f.read()
            li = x.split("\n")
    return len(li)
filename = input('Enter the file name : ')
countOfLines(filename)
```

15.# Function to print upper and lower case characteristics

```
def caseCount(filename):
    cntUpper = 0
    cntLower = 0
    with open(filename,'r') as f:
        if f.mode == 'r' :
            x = f.read()
            li = list(x)
```

```
    for i in li:
        if i.isupper():
            cntUpper += 1 # cntUpper = cntUpper + 1
        elif i.islower():
            cntLower += 1 # cntLower = cntLower + 1
    output = 'Upper case = {0} , Lower case = {1}'.format(cntUpper,cntLower)
    return output
filename = input('Enter the filename : ')
caseCount(filename)
```

16. **math, random, os**

- os package it contains the certains methods which works with OS

17. `ls`

18. `cd Desktop/PythonProg/Git`

19. `ls`

20. `cd ..`

21.