Day Objectives:

- File Handling
  - Basic File Data Processing
    - Accessing and Modifying File Data
  - Character Count
  - Line Count
  - FileSize
  - Word Count
  - Unique Word Count

In [4]:
```
# Read a File - File Should Exist(read mode)
# Write into 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='DataFiles/data.txt'
print(readFile(filePath))

```

```
new data
Line 1
Line 2
Line 3
```

In [ ]:
```

```

In [ ]:
```

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In [ ]:
```

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In [ ]:
```

```

In [18]:
```
# Function to Write into a file
def writeintoFile(filePath,filedata):
    with open(filePath,'a') as f:
        for line in filedata:
            f.write(line)
        print('Data Has been added')
    return
filePath = 'DataFiles/data.txt'
writeintoFile(filePath,'\n Updated data')
```

```
Data Has been added
```

In [23]:
```
#Function to Modify a file

def modifyFile(filePath,filedata):
    with open(filePath,'a') as f:
        for line in filedata:
            f.seek(0)
        f.write('Android \n' )
        print('Data Modified')


modifyFile(filePath,filedata)

```

```
Data Modified
```

In [15]:
```
#Function to find Character Count in a file
fname = input("Enter the name of the file:")

def charCount(filePath,fname):
    filePath = open('DataFiles/data.txt', 'r')
    characters = 0
    lines=0
    for line in filePath:
        lines = lines + 1
        characters = characters + len(line)
    print(characters)

charCount(filePath,fname)
```

```
Enter the name of the file:data
80
```

In [32]:
```
#Function to find line count in a file:
fname = input("Enter the name of the file:")
def lineCount(filePath,fname):
    filePath = open('DataFiles/data.txt', 'r')
    lines=0
    for line in filePath:
        lines = lines + 1
    print(lines)

lineCount(filePath,fname)
```

```
Enter the name of the file:data
7
```

In [21]:
```
#Function to find word count in a file:

fname = input("Enter the name of the file:")
def wordCount(filePath,fname):
    filePath = open('DataFiles/data.txt', 'r')
    lines=0
    words=0
    for line in filePath:
        wordslist=line.split()
        words = words + len(wordslist)
        lines = lines + 1
    print(words)

wordCount(filePath,fname)
```

```
Enter the name of the file:data
17
```

In [48]:
```
#Function to find unique word count in a file:
fname=input("Enter the file name : ")
def uniqueCount(filePath,fname):
    count = {}
    for w in open('DataFiles/data.txt').read().split():
        if w in count:
            count[w] += 1
        else:
            count[w] = 1
    for word, times in count.items():
        print("%s was found %d times" % (word, times))

uniqueCount(filePath,fname)
```

```
Enter the file name : data
new was found 1 times
data was found 1 times
Line was found 2 times
1 was found 1 times
Lines was found 1 times
2 was found 1 times
Lines3 was found 1 times
no was found 1 times
4 was found 1 times
Updated was found 1 times
Data was found 1 times
Android was found 1 times
```

In [50]:
```
#Function to get file size

import os
fname = input('Enter the filename : ')
def fileSize(fname):
    file_path='DataFiles/data.txt'
    with open(file_path,'r') as f:
        f = os.path.getsize(file_path)
    print(f)
fileSize(fname)
```

```
Enter the filename : data
63
```

In [43]:
```
#Command to print the file size

os.path.getsize('DataFiles/data.txt')
```

Out[43]:
```
63
```

In [ ]:
```

```

In [ ]:
```

```

In [1]:

```
# function tp print the frequency  count of all words in a file

# test case
# data in line 1
# data in line 2
# data in line 3
#o/p
# data: 3
# in : 3
# line :3
# 1:1
# 2 : 1
# 3: 1

def uniquewordcount(filename):
    count = 0
    with open(filename,'r') as f:
        filedata = f.read().split()
        ds = {}
        ls = []
        for i in range(0,len(filedata)):
            count = 0
            temp = []
            if filedata[i] in filedata:
                for j in range(0,len(filedata)):
                    if(filedata[i] == filedata[j]):
                        count += 1
                        temp.append(filedata[i])
            ds[filedata[i]] = temp
        for key in ds:
            print(key,",",len(ds[key]))

uniquewordcount('DataFiles/data.txt')
```

```
new , 1
data , 1
Line , 2
1 , 1
Lines , 1
2 , 1
Lines3 , 1
no , 1
4 , 1
Updated , 1
Data , 1
Android , 1
```

In [2]:
```
# unique word count

def uniquewordcount(filename):
    count = 0
    with open(filename,'r') as f:
        filedata = f.read().split()
        ls = []
        for i in filedata:
            if i not in ls:
                ls.append(i)
        print(ls,"lenght is:", len(ls))
uniquewordcount('DataFiles/data.txt')
```

```
['new', 'data', 'Line', '1', 'Lines', '2', 'Lines3', 'no', '4', 'Updated', 'Dat
a', 'Android'] lenght is: 12
```

In [4]:
```
# function to get unique element in a list
# [1,2,3,3,2,1] -> [1,2,3]
# create a empty unique list [1, 2,3]

def uniqueData(li):
    # create an empty unique list
    unique = []

# for every element in the main list,
# check if it exists in the unique list.
#if it does not exist, add it to unique like
#esle if it already exists, move on to the

    for element in li:
        if element not in unique:
            unique.append(element)
    return unique
li = [1,2,3,3,4,5]
uniqueData(li)
```

Out[4]:
```
[1, 2, 3, 4, 5]
```

In [ ]:
```

```