File I/O in Python

Python can be used to perform operations on a file. (read & write data)

Types of all files

1. Text Files : *.txt, .docx, .log etc.*

2. Binary Files : *.mp4, .mov, .png, .jpeg etc.*

Open, read & close File

We have to open a file before reading or writing.

```
f = open( "file_name", "mode")
```

sample.txt

demo.docx

r : read mode

w : write mode

```
data = f.read( )

f.close( )
```

Character	Meaning
'r'	open for reading (default)
'w'	open for writing, truncating the file first
'x'	create a new file and open it for writing
'a'	open for writing, appending to the end of the file if it exists
'b'	binary mode
't'	text mode (default)
'+'	open a disk file for updating (reading and writing)

Reading a file

```
data = f.read( )          #reads entire file

data = f.readline( )      #reads one line at a time
```

Writing to a file

```
f = open( “demo.txt”, “w”)

f.write( “this is a new line“ )    #overwrites the entire file
```

```
f = open( “demo.txt”, “a”)

f.write( “this is a new line“ )    #adds to the file
```

with Syntax

```
with open( “demo.txt”, “a”) as f:
        data = f.read( )
```

Deleting a File

using the os module

Module (like a code library) is a file written by another programmer that generally has a functions we can use.

```
import os

os.remove( filename )
```

Let‘s Practice

Create a new file “practice.txt” using python. Add the following data in it:

Hi everyone

we are learning File I/O

using Java.

I like programming in Java.

WAF that replace all occurrences of “java” with “python” in above file.

Search if the word “learning” exists in the file or not.

Let‘s Practice

WAF to find in which line of the file does the word “learning”occur first.
Print -1 if word not found.

From a file containing numbers separated by comma, print the count of even numbers.