

## WORKING WITH PYTHON FILES:

File is collection of related information. In Python, a file operation takes place in the following order.

- |                 |                        |
|-----------------|------------------------|
| 1 Open a file   | 2 Read or write a file |
| 3 Append a file | 4 Close the file       |

### Opening a file

Python has a built-in function `open()` to open a file. This function returns a file object. It returns a "file handle" - a variable used to perform operations on the file. file handle has.!

1.Open 2.Write 3.Read 4. Close

### Syntax

```
FileObject=open(file_name [, access_mode] [, buffering])
```

### Parameter details:

`file_name`: It contains the name of the file.

`access_mode`: Default file access mode is `read (r)`.

`buffering`: The buffering value 0, no buffering takes place. If 1, line buffering is performed.

### Example:

```
FileObj=open("AnyName.txt") #relative path
```

```
FileObj=open("C:\\Python33\\AnyName.txt") # (AbsolutePath)
```

### File Different Modes:

| Modes | Description   |
|-------|---|
| r     | Opens a file for reading only. (default)                                    |
| b     | Opens in binary mode.   |
| r+    | Opens a file for both reading & writing.                                    |
| rb+   | Opens a file for both reading & writing in binary format                    |
| w     | Opens a file for writing only.  |
| a     | Opens a file for appending.   |
| a+    | Opens a file for both appending and reading.                                |
| 't'   | Opens in text mode. (default)   |
| x     | Open a file for exclusive creation. If file already exists Operation fails. |

### The file Object Attributes

| Attribute                | Description              |
|--------------------------|--------------------------|
| <code>file.name</code>   | Returns name of the file |
| <code>file.mode</code>   | Returns access mode      |
| <code>writable()</code>  | Returns boolean value    |
| <code>readable()</code>  | Retruns boolean value    |
| <code>file.closed</code> | Retruns boolean value    |

The best way to do this is using the `with` statement. This ensures that the file is closed when the block inside with is existed. We don't need to explicitly call the `close()` method. It done Implicitly.

### Syntax:

```
with open("MyFile.txt",mode='r',encoding = 'utf-8') as MyFObj:  
    # Perform Required File Operations
```

### Example:

```
try:
```

```
with open("MyFile.txt",mode='r',encoding='utf-8') as MyFile:  
    print(MyFile.name)  
    print(MyFile.mode)  
    print(MyFile.closed)  
    print(MyFile.readable())  
    print(MyFile.writable())  
except IOError:  
    print("SorryFileNotExisted")  
finally:  
    print("FinallyBlockSuccess")
```