**File handlings**

File handing in python refers to the process of performing operations such as creating,reading,writeing,appending and closing files.

Some of the common file modes are:

* **(Read) ‘r’ :** opens a file for reading
* **(Write) ‘w’ :** Opens a file for writing. Creates a new file if it doesn't exist or truncates the file if it exists.
* **(Append) ‘a’ :** Opens a file for appending. Data is added at the end of the file.
* **(Create) ‘x’ :** creates a new file raises a error if file exists.

File operations in python:

1. **Creating a File**
2. **Opening a File**
3. **Reading from a File**
4. **Writing to a File**
5. **Appending to a File**
6. **Closing a File**
7. **Deleting a File**
8. **Checking File Existence**

**Creating a File :**

Creating file can be simply done using open() function

**Syntax:**

File = open(“filename.txt”,mode)

File = open(“filename.txt”, “x”)

So here x module create file only if it does not exist.

**Writing a file:**

Writing file is a common operation in python we create file using open() function we use

W module creates new file it it does not exists it exists it write in that file.

**Syntax:**

file\_1 = open("gopi",'w')  
file\_1.write("hello world")

**Opening a File:**

Opening a file is a common operation in python we create file using open() function,which allows u to perform various operations such as reading,writing .

**Syntax:**

file\_2 = open("gopi","r")  
content = file\_2.read()  
print(content)

**Reading from a File**

Opening a file is a common operation in python we create file using open() we use module ‘r’

**Syntax:**

file\_2 = open("gopi","r")  
content = file\_2.read()  
print(content)

**Appending to a File**

For appending file to the list we use open() function we use module ‘a’ so that file opens for appending and file adds at the end of the file.

**Syntax:**

file\_3 = open('gopi', 'a')  
file\_3.write("add new line at the end of the file")

**Closing a File**

When you open a file using the open() function, you can explicitly close it using the **close()** method.

**Syntax:**

file.close()

**Deleting a File**

To delete a file in Python, you can use the os module, which provides the os.remove() function for this purpose.

**Syntax:**

Import os

os.remove(‘gopi’)

**Checking File Existence**

To check if a file exists in Python, you can use the os module or the pathlib module. These methods allow you to verify whether a file or directory is present before performing operations like reading, writing, or deleting.

Import os

if os.path.exists("gopi"):  
 print("file exists")  
else:  
 print("file doesnot exists")

**Advantages:**

* Versatility
* Flexibility
* User friendly
* Cross platform

**Disadvantages:**

* Error-prone
* Security risks
* Complexity
* performance