File IO in python

Python provides several ways to manipulate files. Today we will discuss how to handle files in python.

Opening a File

Before we can perform any operations on a file we must first open it. Python provides the open () function to open a file. It takes two arguments the name of the file and the mode in which the file should be opened. The mode can be ‘r’ for reading ‘w’ for writing or ‘a’ for appending.

Here’s an example of how to open for reading.

Example:

```
f=open('myfile.txt','r')
```

Mode in File

There are various in which we can open files.

1. read (r) This mode opens the file for reading only and gives an error if the file does not exist. This is a default mode if no mode is passed as a parameter.

2. write (w) This mode opens the file for writing only and creates a new file if the file does not exist.

3. append (a) This mode opens the file for appending only and creates a new file if the file does not exist.

4. create (x) This mode creates a file and gives an error if the file already exists.

5. text (t) t mode is used to handled text file.

6. binary (b) used to handle binary files (images, pdfs etc).

Reading from a File

Once we have a file object, we can use various methods to read from the file.

The read () method reads the entire content of the file and returns is as string.

```
  file=open('myfile.txt','r')

content=file.read()
print(content)
```

Writing to a File

To write a file, we first need to open it in write mode.

```
 f=open('myfile2.txt','w')
```

We can then use the write () method to the file.

```
f=open('myfile2.txt','w')
f.write("File IO")
```

Closing a File

It is important to close a file after you are done with it.

This releases the resources used by the file and allows other programs to access it.

The close a file you can use the close () method.

```
f=open('myfile2.txt','w')
f.write("File IO")
```

```
f.close()
```

The ‘with’ Statement

Alternatively, you can use the ‘with’ statement to automatically close the file after you are done with it.

```
with open('myfile.txt','a') as newFile:
    newFile.write("This is new content")
```

Source Code

```
# f=open('myfile2.txt','w')
# f.write("File IO")
# f.close()
# print(f)
# text=f.read()
# print(text)
# f.close()
# file=open('myfile.txt','r')
# content=file.read()
# print(content)

with open('myfile.txt','a') as newFile:
    newFile.write("This is new content")
```

Thank You