File Handling

File handling is an important part of any web application. Python provides the facility of working on Files. A File is an external storage on hard disk from where data can be stored and retrieved. Python has several functions for creating, reading, updating, and deleting files.

Opening a Files

Before working with Files you have to open the File. To open a File, Python built in function open() is used. It returns an object of File which is used with other functions. Having opened the file now you can perform read, write, etc. operations on the File.

Syntax

```
fileobj=open(filename , mode , buffer)
```

Filename

The file_name argument is a string value that contains the name of the file that you want to access.

Mode

The mode determines the mode in which the file has to be opened, i.e., read, write, append, etc. This is optional parameter and the default file access mode is read (r).

Buffer

if the value is set to zero (0), no buffering will occur while accessing a file, if the value is set to top one (1), line buffering will be performed while accessing a file.

List of the different modes of opening a file

Mode	Description
r	Opens a file for reading only. (It's a default mode.)
w	Opens a file for writing. (If a file doesn't exist already, then it creates a new file. Otherwise, it's truncate a file.)
x	Opens a file for exclusive creation. (Operation fails if a file does not exist in the location.)
a	Opens a file for appending at the end of the file without truncating it. (Creates a new file if it does not exist in the location.)
t	Opens a file in text mode. (It's a default mode.)
b	Opens a file in binary mode.
+	Opens a file for updating (reading and writing.)

Example	Output
file=open("abc.txt","w") print "Name of the file: ", file.name print "Closed or not : ", file.closed print "Opening mode : ", file.mode	Name of the file: abc.txt Closed or not : False Opening mode : w

Closing a Files

Once you are finished with the operations on File at the end you need to close the file. It is done by the close() method. close() method is used to close a File.

Syntax

```
fileobj.close()
```

Writing to a File

write() method is used to write a string into a file.

Syntax

```
fileobj.write(string str)
```

Reading from a File

read() method is used to read data from the File. value is the number of bytes to be read. In case, no value is given it reads till end of file is reached.

Syntax

```
fileobj.read(value)
```

Example	Output
file=open("abc.txt","w") file.write("Hello Python") file.close() file1=open("abc.txt","r") a=file1.read() print a file1.close()	Hello Python Hello

```
file1=open("abc.txt","r")
a=file1.read(5)
print a
file1.close()
```

rename() Method

The rename() method takes two arguments, the current filename and the new filename.

```
os.rename(current_name, new_name)
```

```
import os
os.rename("abc.txt","xyz.txt")
```

remove() Method

You can use the remove() method to delete files by supplying the name of the file to be deleted as the argument.

```
os.remove(file_name)
```

```
import os
os.remove("abc.txt")
```