

Files in Python

Friday, August 19, 2022 11:12 AM

A

What is a class and what is an object in Python?

1. Python is an object-oriented programming language
2. Almost everything in Python is an object, with its properties and methods
3. A class is like a 'blueprint' for creating objects

Class

```
class MyClass:  
    x = 5
```

Object

```
obj1 = MyClass()  
print(obj1.x)
```

5

Why do we need file handling?

File handling is important in any application that handles permanent data. We will need file handling if we have to read from or write to files



There are 4 aspects in the file management

- 1.read
- 2.Write/Create
- 3.Open
- 4.Delete

Create

To create a new file

- **'x' – Create:** Creates a file; returns an error if the file already exists

```
# Create a new file  
f = open("myfile.txt", "x")
```

Open

Open

Read

Write/Create

Delete

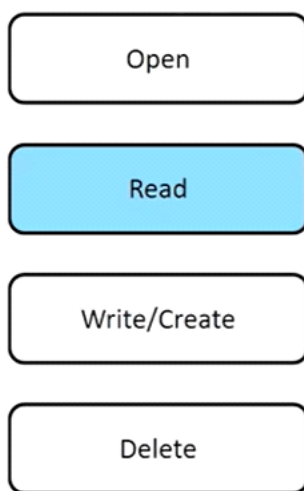
The open() function takes two parameters:
filename and mode

```
#Syntax  
f = open("path of file")
```

Mode Options

- **'r' – Read:** The default value; opens a file for reading; returns an error if the file does not exist
- **'a' – Append:** Opens a file for appending; creates the file if it does not exist
- **'w' – Write:** Opens a file for writing; creates the file if it does not exist
- **'x' – Create:** Creates the specified file; returns an error if a file with the same name already exists

Read



The read() function is used to read n bytes from the mentioned file

```
#Example
f = open("demofile.txt", "r")
print(f.read())
```

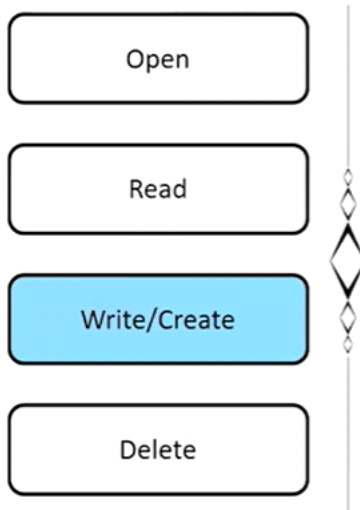
Reading the first 5 lines

```
#Reading parts of file
f = open("demofile.txt", "r")
print(f.read(5))
```

Reading line by line

```
#Loop through the file
#Read the file line by line
f = open("demofile.txt", "r")
for x in f:
    print(x)
```

Write



To write to an existing file, we must add a parameter to the open() function

- **'a' – Append:** Appends at the end of the file
- **'w' – Write:** Overwrites the existing content of the file

```
#Example: Append
f = open("demofile.txt", "a")
f.write("Now the file has one more line!")
```

```
#Example: Overwrite
f = open("demofile.txt", "w")
f.write("Woops! I have deleted the content!")
```

Delete

Open

Read

Write/Create

Delete



To import the OS module

Use the remove() function to delete the mentioned file

```
# Deleting the file  
import os  
os.remove("demofile.txt")
```