

File Handling

Python Functions for FILE HANDLING

- Creating Files
- Reading Files
- Updating Files
- Deleting Files
- Closing Files

FILE OPERATIONS

1. **OPEN()** the file.
2. **READ ()** from the file or **WRITE()** to the file.
3. **CLOSE()** the file.

Steps to Reading from or Writing to Files

- **TIP:** When a file is opened, don't forget to close it.
- **TIP:** Immediately after opening a file, write the close statement.

```
myFile = open("filename", "access mode")
```

```
.....
```

```
myFile.close()
```

Access Mode – specifies what you will do with the file after you open it.

Access mode		Action
r	read	If file exists, opens the file for reading. If file doesn't exist, error message displayed.
w	write	Creates file if it doesn't exist. Otherwise, erases contents of existing file and pointer is positioned at the beginning of the file.
a	append	Creates file if it doesn't exist. Otherwise, pointer positions to end of file and data is appended to the existing file content.
r+		Open for reading and writing.
w+		Open for reading and writing.
a+		Open for reading and writing.

open() a file so data can be **read** from a file



```
myFile = open("demofile.txt", "r")
```

IF the file DOES NOT exist:

Error Message

FILE EXISTS:

1. File is **open** ONLY to read data from.
2. **Cannot** write or modify the file in any way.

open() a file so data can be **written** to the file

myFile = open("demofile.txt", "w")



FILE DOES NOT EXIST:
demofile.txt file will
be **created**.

FILE EXISTS:

- 1) demofile.txt file is **opened**
- 2) any information
in the existing file
will be **erased**.

open() a file so data can be **appended** to the file

myFile = open("demofile.txt", "a")



FILE DOES NOT EXIST:
demofile.txt file will
be **created**.

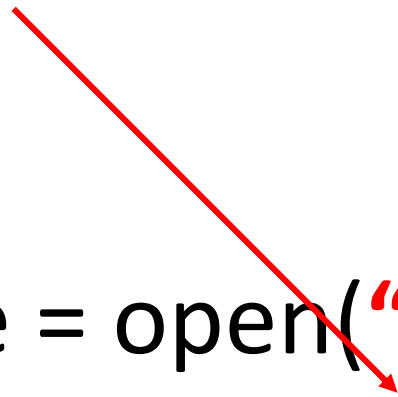
FILE EXISTS:

- 1) demofile.txt file
is **opened**
- 2) any **new**
information will
be **added** to end
of existing file.

demofile.txt

Hello! Welcome to demofile.txt
This file is for testing purposes.
Good Luck!

read() - function to read data from a file



```
myFile = open("demofile.txt", "r")  
print(myFile.read( ))
```

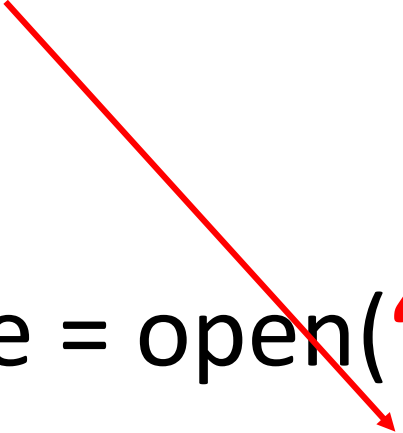
Open the file for reading.

read() will read the **entire contents** of the file.

OUTPUT:

Outputs the contents of the file.

read(#) - function to read characters from a file



```
myFile = open("demofile.txt", "r")  
print(myFile.read(5))
```

Open the file for reading.

read(5) reads **first 5 characters** of the file.

OUTPUT:

Hello

readline() - function to read line by line from a file

```
myFile = open("demofile.txt", "r")  
print(myFile.readline())
```



Open the file for reading.

readline() reads **one line** of the file.

OUTPUT:

Hello! Welcome to
demofile.txt

`readline()` - function to read data from a file

```
myFile = open("demofile.txt", "r")  
print(myFile.readline())  
print(myFile.readline())
```

Open the file for reading.

Each `readline()` reads **one line** of the file.

OUTPUT:

```
Hello! Welcome to  
demofile.txt  
This file is for testing  
purposes.
```

For Loop Iteration to read data from a file

```
myFile = open("demofile.txt", "r")
```

```
for line in myFile:  
    print(line)
```

Open the file for reading.

Use a **For Loop** to loop through the file line by line.

OUTPUT:

Hello! Welcome to
demofile.txt
This file is for testing
purposes.
Good Luck!

close() the File after use

myFile.close()