File Handling

Python Functions for FILE HANDLING

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

FILE HANDLING

1. FIRST, Call the **open()** function to open a file.
2. THEN, Call the **read()** function to read information from the file,
3. OR use the **write()** function to write to the file,
4. FINALLY, Call the **close()** function when you are done.

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**()

OPEN( ) Function - Syntax

myFile = open(“filename”, “accessMode”)

- Use the **open** function to create and/or open a file.

- Specify
  - file name (including the file name extension)
  - data.txt, mytimes.csv etc….
  - access mode
- The file will be created in the same folder as your program.

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”)

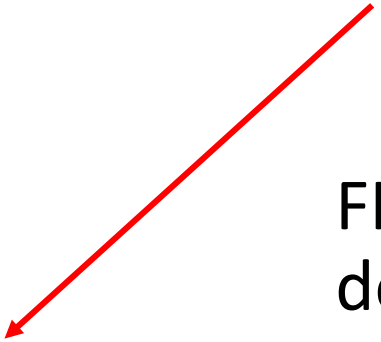
FILE DOES NOT EXIST:

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( ))
```

Reading 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))
```

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())
```

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())
```

Reads two lines of the file.

OUTPUT:

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

Loop Iteration to read data from a file

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

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

Loops 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()