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()