File Handling

FILE HANDLING

1. **open()** - open a file.
2. **read()** -read information from the file.
3. **write()** – write to the file.
4. **close()** – close file.

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.

REVIEW: open( ) and close() file

myFile = **open**("demofile.txt", **"r"**)   **Open for reading from.**

-OR

myFile = **open**("demofile.txt", **"w"**)   **Open for reading and writing.**

-OR

myFile = **open**("demofile.txt", **"a"**)   **Open for reading and appending.**

-OR

myFile.**close()**   **Close the file.**

demofile.txt

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

write() - data written to file

myFile = **open**("demofile.txt",**"a"**)   File is opened.

myFile.**write**("Now the file has one more line")   New data is appended
to end of file.

write() - write data using newline character \n

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

myFile.**write**('Hi there!**\n**")

myFile.**write**('How are you?')

OUTPUT:

Hi there!

How are you?

write() - data written to file

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

myFile.**write**("New data")

File is opened.

CAUTION: Existing data is erased.

New data is written to the file.

Tips for File Handling

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

REMINDER: When a file is opened, make sure to close it.

myFile.**close( )**

Safe way for File Handling – Exception Handling

try:

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

finally:

       myFile.**close( )**

finally is executed no matter what.

Another safe way File Handling – with Statement

with open("demofile.txt", "w") as myFile:

    myFile.write("my first file\n")

    myFile.write("This file\n\n")

    myFile.write("contains three lines\n")

1. If file does not exist, file is created.

2. If file exists, file is erased.

3. **myFile.close() will be done automatically when the block inside with is exited.**