

Python File I/O – Most Used Notes

Opening a File

```
file = open("example.txt", "r")
```

Modes: - "r" → Read (default) - "w" → Write (overwrites) - "a" → Append - "b" → Binary ("rb", "wb") - "x" → Create new (error if exists) - "+" → Read + Write ("r+", "w+")

Reading a File

```
file.read()      # Entire file
file.read(10)    # First 10 chars
file.readline()  # One line
file.readlines() # All lines as list
```

Writing to a File

```
file = open("example.txt", "w")
file.write("Hello, World!\n")
file.writelines(["Line 1\n", "Line 2\n"])
file.close()
```

Appending to a File

```
file = open("example.txt", "a")
file.write("Adding more text...\n")
file.close()
```

Closing a File

```
file.close()
```

⚠ Always close files, or use `with`.

Using `with` (Best Practice)

```
with open("example.txt", "r") as file:
    content = file.read()
    print(content)
# File auto-closes here ✓
```

🐛 Working with Binary Files

```
with open("image.png", "rb") as file:
    data = file.read()

with open("copy.png", "wb") as file:
    file.write(data)
```

🐒 Quick Summary

- **open()** → open a file
 - **read(), readline(), readlines()** → read data
 - **write(), writelines()** → write data
 - **close()** → close file
 - **with** → auto close (best)
-

Keep this sheet handy for revision!