**Day 5: File Handling & Errors**

* Reading/writing files
* Context managers (with)
* Exceptions (try-except-finally)
* Custom exceptions

**✅ 1. Reading and Writing Files**

**🔹 Writing to a File**

with open("example.txt", "w") as f:

f.write("Hello, this is Day 5.\n")

f.write("You're learning file handling!")

**🔹 Reading a File**

with open("example.txt", "r") as f:

content = f.read()

print(content)

**🔹 Appending to a File**

with open("example.txt", "a") as f:

f.write("\nAppended line.")

**✅ 2. Reading Line by Line**

with open("example.txt", "r") as f:

for line in f:

print(line.strip())

**✅ 3. Exception Handling (Try/Except)**

try:

x = int(input("Enter a number: "))

print(10 / x)

except ZeroDivisionError:

print("You can't divide by zero.")

except ValueError:

print("That's not a valid number.")

finally:

print("Done.")

**✅ 4. Custom Exceptions (Optional)**

class TooShortNameError(Exception):

pass

name = input("Enter name: ")

if len(name) < 3:

raise TooShortNameError("Name is too short!")

**✅ 5. Context Managers (with)**

The with statement automatically closes the file:

with open("data.txt", "w") as file:

file.write("Safe and clean file writing.")

**🧠 Mini Exercises:**

1. Write a program to write a list of 5 names to a file, one per line.
2. Read the same file and print only names that start with A.
3. Use try-except to catch file not found errors when reading a file.
4. Use a with block to safely read and print all lines in a file.