

Exercise walk-through

File handling ■ 8.3

eXercise

You must be able to

- explain why a program uses a file to store data
- write pseudocode to **open, write, read and close** a file
- describe the difference between writing to and reading from a file

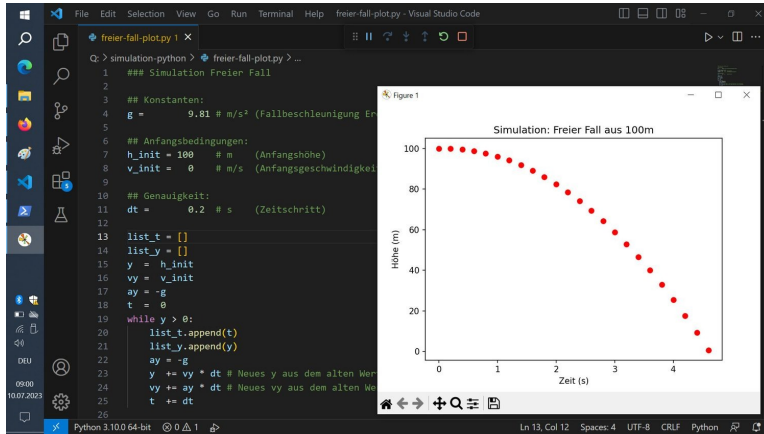
Method — Open, use, close

Write then read back one line:

- `OPENFILE "data.txt" FOR WRITE → WRITEFILE "data.txt", "Hello" → CLOSEFILE "data.txt"`
- `OPENFILE "data.txt" FOR READ → READFILE "data.txt", line → CLOSEFILE "data.txt"`

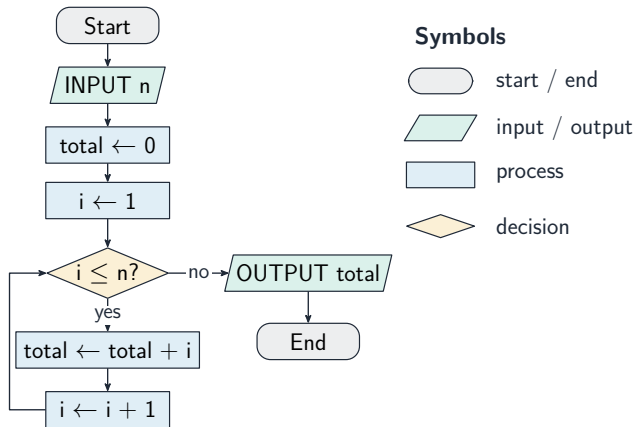
Always **close** a file when finished.

Method — Open, use, close



Lines of program code on a screen

Method — Open, use, close



File handling follows an open - read/write - close sequence

Practice 2.1 ■ 1 mark

State one reason a program stores data in a file rather than in a variable.

Solution 2.1

Method: Open, use, close

Worked steps

a file keeps the data after the program stops / it is permanent (non-volatile) storage

B1.

Practice 2.2 ■ 3 marks

State the three steps used to handle a file, in order.

Solution 2.2

Method: Open, use, close

Worked steps

open the file `B1`; read or write the data `B1`; close the file `B1`.

Exam-style 3.1 ■ 1 mark

A program must keep its data after it stops running. The data should be stored:

A in a variable

B in a constant

C in a file

D in an array

Solution 3.1

Method: Open, use, close

A in a variable

B in a constant

C in a file



D in an array

Worked steps

C. A file keeps data after the program stops.

Exam-style 3.2 ■ 3 marks

A program writes a player's name to a file, then later reads it back.

- (a) Write pseudocode to open `scores.txt`, write the name in variable `playerName` to it, and close it.
- (b) State what could go wrong if the file is **not** closed after writing.

Solution 3.2

Method: Open, use, close

Worked steps

(a) `OPENFILE "scores.txt" FOR WRITE` **M1**; `WRITEFILE "scores.txt",`
`playerName` **M1**; `CLOSEFILE "scores.txt"` **A1**.

(b) the data may not be saved properly / the file may be left locked or corrupted
B1.