

Python - Practical Work 2

Handling Files

Exercise 1

Write a Python program which asks for the user to enter a file name and prints the content of the file line per line.

Exercise 2

Update the previous Python program to number the lines when displaying them.

Modify the program to number only lines containing some text.

Exercise 3

Here we want to manipulate a file containing several informations on the same line. The idea is to develop each line to create a new file that will contain only one value per line.

The input file stores the results of a triathlon and is named `resultatTriathlon.txt`. You can download it on my web site or on the space dedicated to this lecture.

Each line has the following structure:

- First and last names of the participant (space separated)
- The time after the first stage (swimming)
- The time after the second stage (cycling)
- The total time, *i.e.*, after the running stage.

These 4 fields are tab separated. If a participant has given up, only stages (s)he has participated to are written in the input file. Write a Python program that reads the input file and creates a new file structured as follows:

- First and last names of the participant (space separated)
- The stage number
- The time after the corresponding stage

The fields are tab-separated. For instance, `Simon Whitfield 1 18:18.09` will be one line of the output file.

Exercise 4

Write a Python program that will write the text entered by the user into a file. Basically, it works as follows:

- The program continuously asks for the user to type some text
- Each time the user press the **enter** key, it is considered as a new line
- The program stops asking for new text when the user enters the string `[end]`
- Then, the program asks for the name of the file in which the entered text will be written
- The text is written in the file and the program stops