Python Test, 10.15 - 12.15

Rules

- You must pass all exercises to pass the test,
- Aids: Paper, pen, your laptop, VS Code, the website `docs.python.org/3/library/`.
- No documentation of the code is needed.

Exercise 0 (Preparation)

Create a new folder in Visual Studio Code entitled `python_test` and store all Python test related files in that project. Close all other files!

Exercise 1

Create a Python program `sum.py` containing a function `sum100(lst)` that returns True if the integer list `lst` contains two integers that adds up to 100. For example, the two lists `[33,5,67,98,51]` and `[-27,14,67,51,127]` should return True since $(33, 67)$ and $(-27, 127)$) adds up to 100. The list `[33,5,62,94,51]` should return False since no pair of numbers in the list adds up to 100. Also, add program code that demonstrates how the function can be used.

Exercise 2

Create a Python program `wrap_around.py` with a function `wrap(s,p)` that returns a new string containing all characters in string `s` separated with string/character `p`. That is, for input `abcd,+` it should return `+a+b+c+d+`, and for input `Alice,FF` it should return `FFAFFlFFiFFcFFeFF`. Notice that the returned string both starts and ends with p. Also, add program code that demonstrates how the function can be used.

Exercise 3

Create a Python program `no_duplicates.py` that reads an arbitrary number of integers from the keyboard. You type a duplicate element (one that already been provided) to stop the reading process. The program ends by printing all the integers (except the final duplicated). An execution might look like this:

```
Provide integers and stop with a duplicate element
Number 1: 6
Number 2: 7
Number 3: -16
Number 4: 20
Number 5: 7

All numbers
6
7
-16
20
```