WEDNESDAY

EXERCICE 1

<table>
<tr><td colspan="2">WHAT YOUR PROGRAM SHALL DO</td></tr>
<tr><td colspan="2">

- Enter a list of **numbers** in the console:
  CONSOLE : console shall display Enter numbers : [2, 9, 4, 6, 7]

- Print the **number** of 7 in this list of numbers
  CONSOLE : console shall display Result is : 1

To perform this exercise you need to code this function and call it :

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Function name	numberOfSevens
Parameters	numbers (an **array**)
Return value	The number of 7 in the array (a **number**)
Examples	numberOfSevens ([5, 7, 7, 11]) → 2

EXAMPLES	
CONSOLE	EXPLANATION
>Enter numbers: [4, 1, 3, 7, 7] >Result is : 2	There are 2 number 7 in the list

HOW TO EVALUATE CONSOLE INPUT AS A **LIST OF VALUES** ?	
CODE	EXPLANATION
`a = input("Values:")`	If you enter "[4,5,6]" in the console, **a** will **be a STRING** containing the characters : "[4, 5, 6]"
`a = eval(input("Values:"))`	If you enter "[4,5,6]" in the console, **a** will **be an ARRAY** containing 3 numbers : 4, 5 and 6
`a = "[1,2,3]"` `b = eval("[1,2,3]")`	- a is a STRING of 7 characters - b is an ARRAY of 3 elements (1, 2 and 3)

EXERCICE 2

WHAT YOUR PROGRAMM SHALL DO

- Enter a <u>list of</u> **numbers** in the console
        CONSOLE : console shall display Enter numbers : [2, 9, 4, 6, 2]
 	
-Print the **number** of the **time** a value is greater than the previous value on the list
        CONSOLE : console shall display Result is : 2

Example: if will enter 5 values: 4, 7, 6, 8, 4   then the result to print is 2, since we have 2 times a number greater than the previous number:

Here 7 is greater
That the previous value

Here 8 is greater
That the previous value

So for this example, the result is : 2

4   7   6   8   4

Here 6
Is **not** greater than 7

Here 4
Is **not** greater than 8
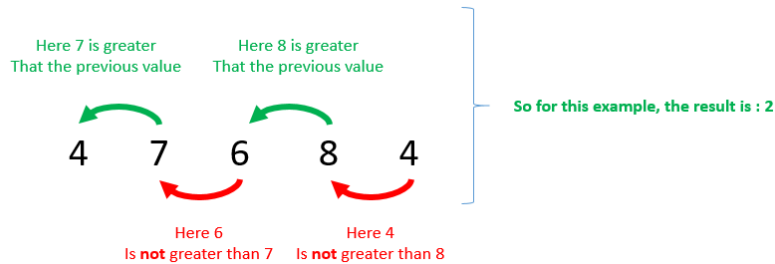
EXAMPLES	
CONSOLE	EXPLANATION

>Enter numbers: [4, 1, 3]
>Result is : 1
	Here we enter 3 values : 4, 1, 3
	   - 1 is NOT greater than 4 (0 found)
	   - 3 is GREATER than 1 (1 found)
	So we print 1

> Enter numbers: [1, 2, 3, 5]
>Result is : 3
	Here we enter 4 values : 1, 2, 3, 5
	   - 2 is greater than 1 (1 found)
	   - 3 is greater than 2 (1 found)
	   - 5 is greater than 3 (3 found)
	So we print 3

THURSDAY

EXERCICE 1

WHAT YOUR PROGRAM SHALL DO

- Enter a <u>list of</u> **string** in the console

        CONSOLE : console shall display Enter words : ["banana", "apple", "tomatoes"]

-Print the total number of "a" or "A" among all words

        CONSOLE : console shall display Total number of A is : 6

Do perform this exercise you need to code a function and call it

Function name	countA
Parameters	words (an **array of STRING**)
Return value	The number of 7 in the array (a **number**)
Examples	countA (["a", "aab"]) → 3

EXERCICE 2

We give you the bellow 2 arrays:
- One array is a list of country names
- One array is a list of population (in millions)
- In both arrays indexes refer to the same country: for instance, Canada (index 0) has a population of 110 million, Cambodia (index 3) has a population of 8 million.

```
countryNames              = ["canada", "france", "usa", "cambodia"]
countryPopulationInMillions  = [110, 70, 250, 8]
```

WHAT YOUR PROGRAM SHALL DO

- The program asks user to enter a country name:

       CONSOLE : console shall display Enter country : canada

- The program shall return the population for the entered country:

       CONSOLE : console shall display : Population of canada is 110 millions people

Do perform this exercise you need to code a function and call it

Function name	getIndexOfCountry
Parameters	countryName (a STRING)
Return value	The index of the country is the array of country name - Or -1 if the country has not been found in the list
Examples	getIndexOfCountry ("canada") → 0 getIndexOfCountry ("hello") → -1 getIndexOfCountry ("cambodia") → 3

FRIDAY

The right order of words!

<table>
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- Enter a <u>list of</u> **string** in the console (it shall be the words of a sentence, but in a wrong order)

       CONSOLE :   Enter words : ["Ronan", "is", "Hello" , "name", "my"]

- Enter a <u>list of</u> **integer** in the console (it shall be the REAL order of the words)
       CONSOLE :   Enter the order of words : [2, 4, 3, 1, 0]

    <u>Explanations</u>:
    Here the real sentence is : "Hello my name is Ronan"
    So we need first the string at index 2 ("Hello") then 4 ("my") and so on…

- Print the sentence of words in the right order, including space between words :
       CONSOLE :   Hello my name is Ronan

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<tr><td colspan="2">EXAMPLES</td></tr>
<tr><td>CONSOLE</td><td>EXPLANATION</td></tr>
<tr>
<td>>Enter words: ["python", "love", "I"]
>Enter orders: [2,1,0]
>I love python</td>
<td>The first word of the sentence is at index 2
Then index 1 ("love")
Etc.</td>
</tr>
<tr>
<td>>Enter words: ["for", "ready", "Are", "algorithm", "you"]
>Enter orders: [2, 4, 1, 0, 3]
>Are you ready for algorithm</td>
<td>The first word of the sentence is at index 2 ("Are")</td>
</tr>
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