

## Exercise 01

25 points

### WHAT YOUR PROGRAM SHALL DO

- Enter list of people name
- Count number of letter A in each names of people in the list.

**Example:** ["Rady", "Ronan", "Him"] so number of letter **A** in **Rady & Ronan** is 1 and 0 in **Him** name.

INPUT	OUTPUT	EXPLANATION
["dara", "bopha"]	Number of A in dara is 2 Number of A in bopha is 1	In name of Dara we have 2 letter A and in name of Bopha we have 1 letter A
["Him", "Mengheang", "Sokhom"]	Number of A in Him is 0 Number of A in Mengheang is 1 Number of A in Sokhom is 0	Only Mengheang name that contain 1 letter A. other no letter A.

**WHAT YOUR PROGRAM SHALL DO**

We want to check if a word contains uppercase letter.

We enter the word to check in console

We print:

- VALID if the word contains the uppercase letter
- INVALID otherwise

*Noted: you can use only upper() function*

Example:

INPUT

> Good morning

OUTPUT

> VALID

FUNCTION NAME	containUpperCase
Parameters	word (string)
Return	True if the word contains uppercase letter (at least one)
Example	containUpperCase("Hello") → True containUpperCase("hi") → False

**WHAT YOUR PROGRAM SHALL DO**

We want to reverse a string in array items  
For instance, the reversed string of “Banana” will be “ananaB”

Example

INPUT

["Mango","Coconut"]

OUTPUT

The reverse of Mango is ognaM

The reverse of Coconut is tunocoC

FUNCTION NAME	reverseString
Parameters	word (string)
Return	The reverse word
Example	reverseString("Hi") → iH reverseString("Hello") → olleH

**WHAT YOUR PROGRAM SHALL DO**

We have the scores of some students in different topics and we want to computer the total average (all student, all topics)

INPUT:

Number of students (integer)

For each student:

Array with the score of the student on different topics

OUTPUT:

The average of score for all students, for all topics

Example:

[50, 60]

[30, 50]

[60, 80, 70]

OUTPUT = 55

Explanations:

We enter 3, so have 3 students

We read 3 list of score

The first average is 55 ( $50+60 / 2$ )

The second average is 40 ( $30+50 / 2$ )

The last average is 70 ( $60+80 +70 / 3$ )

.

.

So, the final average is: 55 ( $55 + 40 + 70 / 3$ )

**FUNCTIONS**

To perform this program, you MUST code and use

Function name	average
Parameters	<ul style="list-style-type: none"><li>List of numbers<ul style="list-style-type: none"><li>Ex: [60, 80, 70]</li></ul></li></ul>
Return value	The average of the given numbers