

# Assignment 7: linear regression

## General instructions:

- Use the file "assignment\_7\_template.py" to do the assignment. Change the name of the file to "assignment\_7.py".
- Write your code after the comment: "#Your code here:" (do not modify the code before this comment)
- Office hours information are available in the office hours channel on Teams.
- Authorized libraries (you cannot import other library than the authorized ones):
  - o numpy
  - o scikit-learn

## Deadline:

- 24/11/2022 at 23:59:59
- Delayed submissions are not allowed

## Coding instruction:

- The program is fed with two inputs. Input1 is a list of features and input2 is a list of labels. So input1 and input2 will be a text with a list of items ("1,2,3,4,5,6" for example). **Do not use the "input()" function**. Use input1 and input2 as define in the template.
- Your objective is to make a linear regression model with the scikit-learn package, train it with the inputs and display the equation of the model.
- The output is a sentence who shows the equation.
- The function to transform the input string into a list is already written in the template.
- **The function to print the result is already written in the template. You have to use this exact function!**

## Tests Information:

Input1 (string)	Input2 (string)	Expected output (string) (on one line)
"1,2,3,4,5,6"	"2,4,6,8,10,12"	The most accurate linear regression has the following equation: $y' = 2.00 \cdot x + 0.00$
"51,213,65,565,98,8"	"100,200,3,65,489,666"	The most accurate linear regression has the following equation: $y' = -0.54 \cdot x + 343.97$
"8,10,23,65,12"	"29,35,69,200,31"	The most accurate linear regression has the following equation: $y' = 3.05 \cdot x + 0.77$

## Upload instructions:

- When your code is finish and work. Upload it to codepost.io (Tutorial [here](#))
- You can reupload your code as many times as you want until the deadline
- The last upload is taken into account, so if you success all tests but reupload another file which is not working, you assignment will be failed.
- The expected name for your file is "assignment\_7.py". If the name is different, your code will fail.