Project 1 : Divide & Conquer

Down below you'll see 2 different problems , in order to earn all the score of this project you are free to choose either one of these problems

- ## Maximum subarray

  the **maximum sum subarray problem** is the task of finding a contiguous subarray with the largest sum of its elements

  - You'll take one-dimensional array $A[1...n]$of integers
  - The task is to find i , j that are indexes in the array such that the sum $\sum_{x=i}^{j} A[x]$ is as **large** as possible.
  - For example, for the array of values [−2, 1, −3, 4, −1, 2, 1, −5, 4], the contiguous subarray with the largest sum is [4, −1, 2, 1], with sum 6.

- ## Strassen algorithm

  The **Strassen algorithm** is an algorithm for matrix multiplication. It is faster than the standard matrix multiplication algorithm and is useful in practice for large matrices. Research and study about this algorithm and try to code it.

Attention!

1. All of the projects (no matter what you choose) will be tested for similarity by a coded script, So if we find an obvious similarity between 2 or more projects **all** of them will get **0** points.
2. You are free to choose any programming language that you desire.
3. Add a document file and **explain deeply** what you've done in your code and the algorithm you chose.
4. Explain the algorithm **before** you begin talking about your code.

Extra points

If you want to get more score and a **opportunity** of something better , you have to do by all these terms

- Code in **python**
- Write your document in **Jupyter or Colab**
- Write the document in **English**

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