## [Lab] K-means

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Lab due: Before the end of today lab session

**Evaluation**: Code and explanation about the code in groups of only two or three people

Remark:

- Only groups of two or three people accepted (preferably three).
- No plagiarism. If plagiarism happens, both the "lender" and the "borrower" will have a zero.
- Code yourself from scratch following the theory given in lecture.
- No pre-lab/lab will be considered if any ML library is used.
- Do thoroughly all the demanded tasks.
- Study the theory for the questions.

## 1 Tasks

- a. Download from the course site the initial Python code and the 2D data stored in data\_kmeans.txt file.
- b. Cluster them using the K-means algorithm using the formulas seen in class.
- c. Test your model with some new data.
- d. Plot both training and test results in a 2D graph.