

[Pre-Lab] K-means and PCA

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Due: Before the start of the coming lab session.

Remark:

- Only groups of two or three people accepted (preferably three). Forbidden groups of fewer or larger number of people.
 - Do the below tasks in order so that you can work efficiently during the coming two-hour lab session.
 - No plagiarism. If plagiarism happens, both the “lender” and the “borrower” will have a zero.
 - Code yourself from scratch. No pre-lab/lab work will be considered if you solve the problem using any ML library.
 - Do thoroughly all the demanded tasks.
 - Study the theory for the questions.
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1 Tasks: K-means

1. Download from the course site the 2D data stored in `data_kmeans.txt` file.
2. Cluster them using the K-means algorithm using the formulas seen in class.
3. Test your model with some new data.
4. Plot both training and test results in a 2D graph.