TU Dortmund   10.6.2022
Artificial Intelligence / Data Science and Data Engineering   **Machine Learning for Complex Data**
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Prof. Dr. Emmanuel Müller   **Summer 2022**
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Assignment 8: GriDBSCAN and SUBCLU
Due: Thursday, 23.6.2022

Problem 8-1   GriDBSCAN Clustering   6

Prove that the results found by GriDBSCAN are equivalent to DBSCAN results.

You may assume Euclidean distance.

Problem 8-2   SUBCLU Clustering Task   6

Consider this four-dimensional dataset:

	d1	d2	d3	d4
A	15	12	16	9
B	14	13	18	3
C	12	14	14	15
D	16	13	19	19
E	5	6	9	4
F	4	11	10	18
G	6	17	8	13
H	6	9	14	16
I	14	19	13	15
J	19	3	15	14

Cluster the dataset using SUBCLU. Use minPts $= 3$, $\varepsilon = 4$, and Euclidean distance.