## HOMEWORK H3.4 – CREATE A K-MEANS CLUSTERING IN PYTHON

H3.4 - K-MEANS-CLUSTERING ALGORITHM

29.08.2024

## K-MEANS OVERVIEW



Type: unsupervised machine learning



Usecases: Grouping of Data



Input: Datapoints and number of clusters



- 1. Random starting points (one for each cluster) → centroids
  - 2. Assign each Datapoint to its closest centroid
    - 3. Use new mean of each cluster as its new centroid
      - 4. Repeat Step 2,3 until no more modifications to centroids

## **SOURCES**

PYTHON CODE EXAMPLES

HTTPS://BENALEXKEEN.COM/K-MEANS-

CLUSTERING-IN-PYTHON/

HTTPS://TOWARDSDATASCIENCE.COM/

UNDERSTANDING-K-MEANS-

CLUSTERING-IN-MACHINE-LEARNING-

6A6E67336AA1?GI=125404EB821

YOUTUBE VIDEOS

HTTPS://WWW.YOUTUBE.COM/WATCH?

V=GN6FPYD1OIU