

## Question on K-nearest Neighbours (KNN)

Explain the algorithm by your own words.

KNN is a simple technique for supervised or unsupervised learning based on similarities of observations.

The similarities are based on a predefined constant  $k$ .

KNN is a lazy classifier ~~also~~ because there is no training of a model, just a test. This is called non-generalized methods or instance-based methods.

With  $k$  you assign the nearest neighbours to the dataset and with observe them, once the neighbours have been found a rotation system, will then assign the class or value to the new data point.

Euclidean distance will mostly be used to measure proximity

- ⊕ simple
- ⊕ zero training time
- ⊕ Useful for both regression + classification
- ⊖ Compute a lot of performance
- ⊖ Not good when data is skewed
- ⊖ Not straight forward with categorical data.