

Assignment #2

The goal of this assignment is to learn about the kNN.

- You will post a complete assignment using Jupyter notebook in your homepage.
- For this homework, you are not allowed to use any library because kNN is very easy to implement.
- We will use IRIS dataset. <https://archive.ics.uci.edu/ml/datasets/Iris>
- Below is the process.
 - a. Divide the dataset as development and test. Because kNN does not require training you don't have a train dataset. Make sure randomly divide the dataset
 - b. implement kNN using the following hyperparameters
 - number of neighbor K
 - 1,3,5,7
 - distance metric
 - euclidean distance
 - normalized euclidean distance
 - cosine similarity
 - c. Using the development dataset,
 - Calculate accuracy by iterating all of the development data point
 - Find optimal hyperparameters
 - Draw bar charts for accuracy
 - d. Using the test dataset
 - Use the optimal hyperparameters you found in the step c, and use it to calculate the final accuracy.