

# K-Nearest Neighbors

- Just like the decision tree, K-Nearest Neighbour(KNN) is another widely used classification algorithm.
- For this part you will be walking through the intuition behind KNN and the math used for its implementation and finally implement the KNN algorithm using scikit-learn on the weather dataset provided to you previously for the best possible value of  $k$  to achieve maximum possible accuracy.
- Use results from your previous data clearing and visualization and using the resources provided understand and implement the KNN algorithm using scikit-learn.
- The deadline for checkpoint 7 is **27th Jan 2023, 11:00 pm**.

## **Resources:**

- KNN Intuition : [1.6. Nearest Neighbors – scikit-learn 1.2.0 documentation](#)
- Scikit-learn documentation : [sklearn.neighbors.KNeighborsClassifier – scikit-learn 1.2.1 documentation](#)
- Math behind KNN and its implementation from scratch for better understanding (no need to implement):
  - ▶ KNN (K Nearest Neighbors) in Python - Machine Learning From S...
- KNN Implementation in scikit-learn :
  - ▶ Machine Learning Tutorial 13 - K-Nearest Neighbours (KNN algori...