**k-Nearest Neighbors (KNN)**

**Definition:**

**is an algorithm that allows the system to classify points based on their proximity to adjacent points in space.**

**Uses:**

1. **Data classification: KNN is used to classify points in certain categories based on their similarity with adjacent points.**
2. **Value estimation: can be used to estimate a new value through average neighbour values.**

**Advantage**

1. **Simple and effective in many cases.**
2. **does not include training period as the data itself is a model which will be the reference for future prediction**
3. **No assumptions about the data. This is different than some other algorithms.**

**Disadvantge**

1. **He suffers from significant time consumption when the data are large.**
2. **Sensitivity to abnormal values or noise in data.**
3. **He needs a correct choice of k value, which may affect the performance of the algorithm.**

**The Accuracy of k-Nearest Neighbors (KNN) in this code 0.62**