* 1. **Advantages**

KNN is a very simple algorithm used to solve classification problems. KNN stands for K-Nearest Neighbors. K is the number of neighbors in KNN. The main advantage of our system is that, we endeavored to develop a model that will result with better accuracy level. By this method we can gain a certain level of accuracy as we may need according to situation each time. For different situation it may be time efficient too while we may need less accuracy. It can also be faster in that case of operation. The advantages of KNN is summarized by following points:

1. **No Training Period:** KNN is called **Lazy Learner (Instance based learning)**. It does not learn anything in the training period. It does not derive any discriminative function from the training data. In other words, there is no training period for it. It stores the training dataset and learns from it only at the time of making real time predictions. This makes the KNN algorithm much faster than other algorithms that require training e.g. SVM, Linear Regression etc.
2. Since the KNN algorithm requires no training before making predictions, **new data can be added seamlessly** which will not impact the accuracy of the algorithm.
3. KNN is very **easy to implement**. There are only two parameters required to implement KNN i.e. the value of K and the distance function (e.g. Euclidean or Manhattan etc.)
4. Can learn non-linear boundary, robust to noise in the input data.