KNN (K- Nearest Neighbours) – Machine Learning HL

Select one or more choices from the list of common Machine Learning Algorithms, do some investigations and write me a short summary. I am looking for the following:

Is it Supervised/Unsupervised/Reinforcement learning?

KNN (K- Nearest Neighbours) is a supervised learning algorithm.

• What does the algorithm do?

KNN (K- Nearest Neighbours) groups the data together within a similar classification. The algorithm assumes that data which is nearest to one another will be similar to one another and as such groups the data together (K). The data is then assigned to its nearest (K) neighbor.

The labelling of the groups of datapoints is completed by using calculations such as Euclidean, Manhattan or Minkowski distance mathematical equations.

• In which situations will it be most useful?

KNN (K- Nearest Neighbours) is most useful for smaller data sets to determine classification of data. For example, classifying wine types or credit scores.