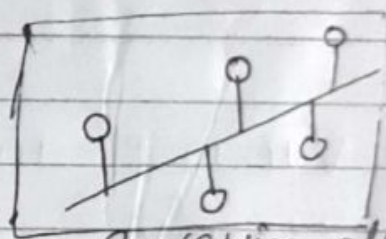


Algorithm Grouped By Similarity

- Algorithms are often grouped by similarity in terms of their function (how they work)
- For example, tree-based method and neural network inspired method



Regression Algorithms

Regression algorithms

→ is concerned with modeling relationship between variables that is iteratively refined using a measure of error in the prediction made by model

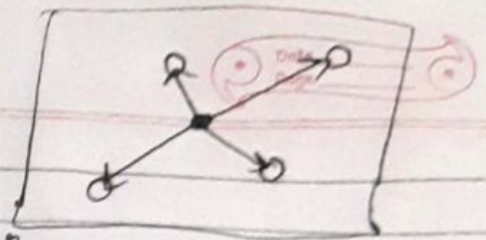
→ Regression methods are a workhorse of statistics and have been co-opted into statistical machine learning.

→ We can use regression to refer to the class of algorithm and the class of problem.

→ The most popular regression algorithms are :-

- linear regression
- logistic regression
- Ordinary Least Squares Regression (OLS)

Instance Based Algorithm



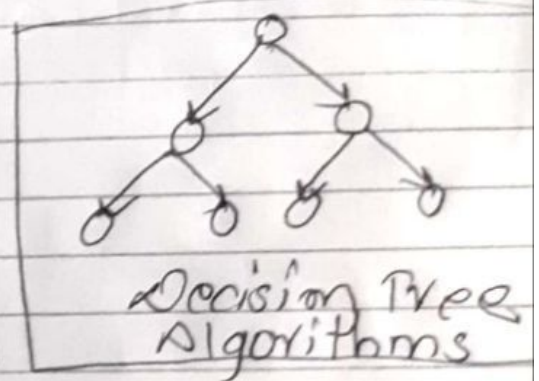
→ Instance based learning model is a decision problem with instances or examples of training data that are deemed important or required to the model.

→ most popular instance-based algorithms are:

- K-Nearest Neighbor (KNN)
- Learning Vector Quantization (LVQ)
- Self Organized Map (SOM)

Decision Tree Algorithms

→ Decision tree methods construct a model of decisions made based on actual values of attributes in the data.



→ Decision trees are trained on data for classification and regression problems.

→ most popular decision tree algorithms are:

- Classification & Regression Tree (CART)