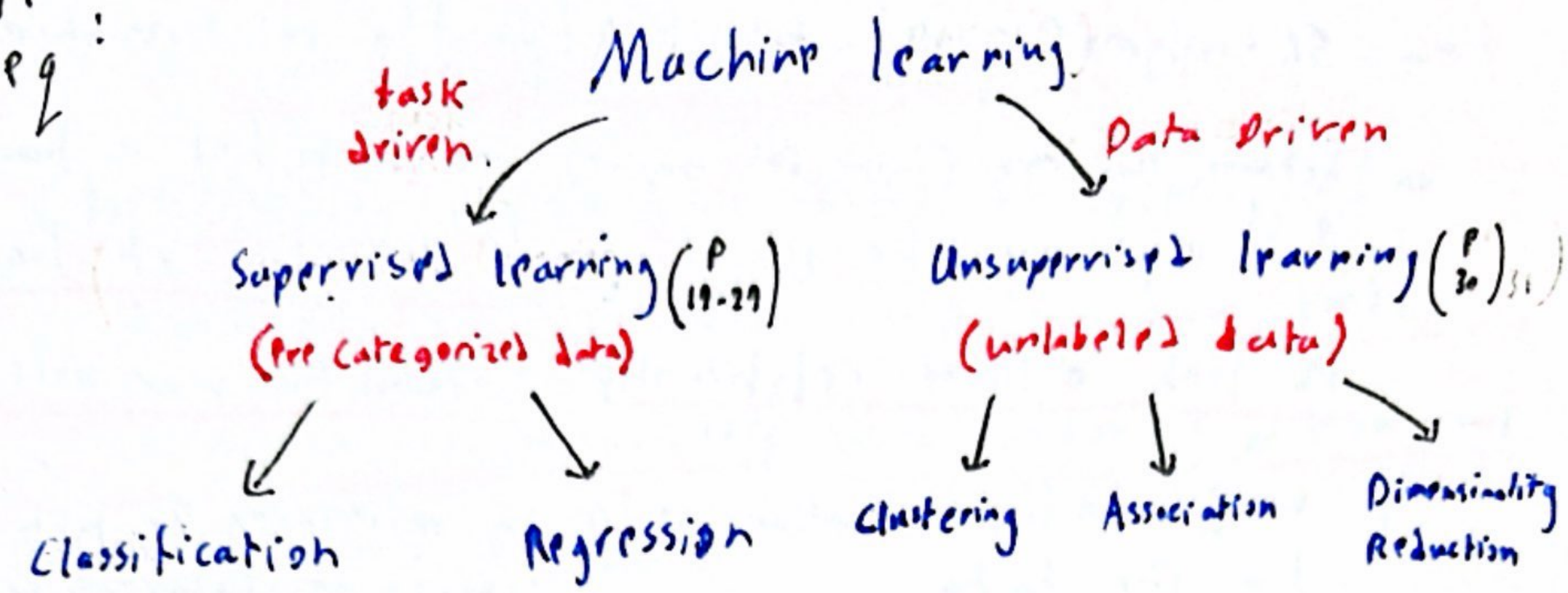
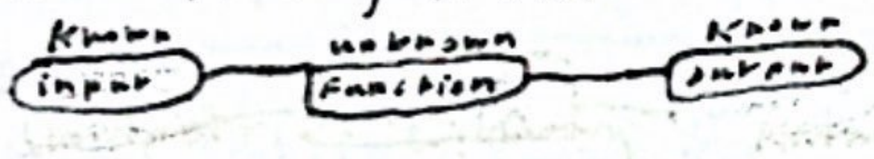
Machine Learning Algorithms

- pre req:

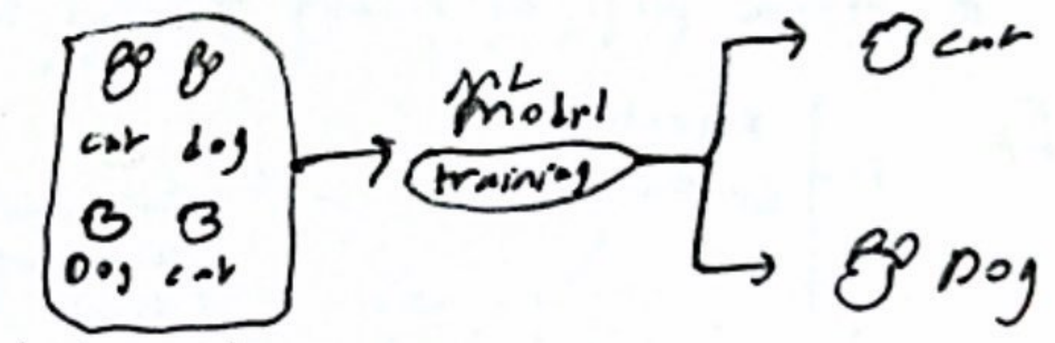


☆ ML is a branch of AI where we teach computer with data and algorithms so they can preform tasks without explicit instructions ML models can generelize to unseen data and thus br able to do this

☆ Supprised learning is a Branch of ML where we use labeled data to teach the Model what it is its looking at, it learns from the data teaching itself so then it can predict the labels of new data



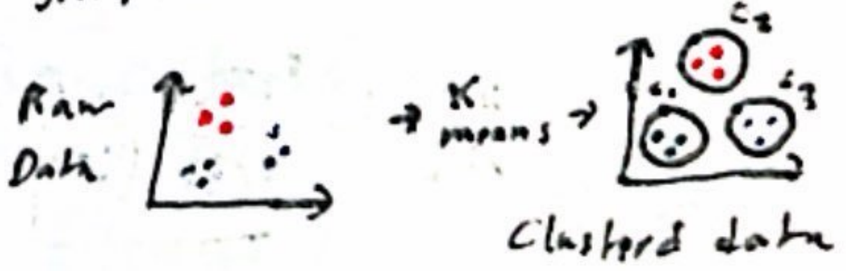
☆ Unsupervised Learning



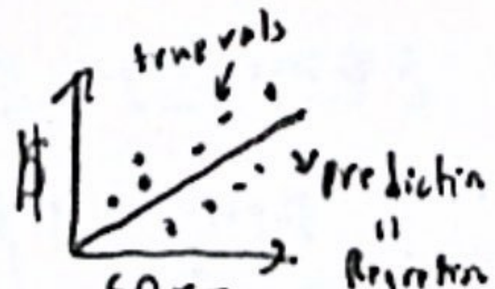
- No labels in training
- can use labels after to evaluate mobel/clustring (if labels given)

is a Branch of ML where we have unlabeld data and the computer learns to find patterns in this data and group the data by those patterns and similliarities

☆ Clustring is a common USL here we dont have any labels and just trying to find unknow Clusters in patterns just by Looking at the data

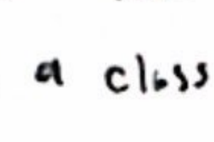


☆ Regression; in SL this predicts some continous numeric target variable given a input variable in the ex for any SQFT the price can be any number (No range) and the line goes for ever this



- # can be any number (continous) for.
- Line goes forever
- SQFT can by any #

☆ classification: is SL this predicts classes that a input falls in for ex a # recognition NN. given any # it predicts a class (0-9) so only 10 classes are possible



⇒ NN = 2