CLASSIFICATION

In machine learning, Classification is

- A supervised learning approaches
- Categorizing or classifying some unknown items into a discrete set of categories or "*classes*"
- The target attribute is a categorical variable with discrete values
- Classification attempts to learn the relationship between a set of feature variables and a target variable of interest
- Classification determines the class label for an unlabeled test case
- We can build classifier models for both binary classification and multi-class classification
- Data classification has several applications in a wide variety of industries
- Essentially, many problems can be expressed as associations between feature and target variables especially when labelled data is available which provides a broad range of applicability for classification
    - Example – email filtering, speech recognition, handwriting recognition, biometric identification, document classification and much more
- Here the types of Classification algorithms in ML
    - Decision Trees (ID3, C4.5, C5.0)
    - Naïve Bayes
    - Linear Discriminant Analysis
    - K-Nearest Neighbor
    - Logistic Regression
    - Neural Networks
    - Support Vector Machines (SVM)