

CLASSIFICATION

REGRESSION

- The target variables are discrete.

- The target variables are continuous.

- Output is Categorical labels.

- Output is Continuous numerical values.

- Here we face the problems like binary Classification or Multi-Class Classification problems.

- Here we face problems like Linear Regression models as well as non-linear models.

- Problems like Spam Email Classification and disease prediction are solved using Classification Algorithms.

- Problems like House Price Prediction and rainfall Prediction like problems are solved using regression Algorithms.

- Example: Logistic Regression, Decision Trees, Random Forest, Support Vector Machines (SVM), K-Nearest Neighbors (K-NN), Naive Bayes, Neural Networks, K-Means Clustering, Multi-layer Perceptron (MLP), etc.

- **Example:** Linear Regression, Polynomial Regression, Ridge Regression, Lasso Regression, Support Vector Regression (SVR), Decision Trees for Regression, Random Forest Regression, K-Nearest Neighbors (K-NN) Regression, Neural Networks for Regression, etc.