CHEAT SHEET

Classification and Regression Trees

Algorithm Name	CART (Classification and Regression Trees)
Description	A decision tree framework that solves classification and regression problems.
Applicability	Classification and regression problems. CART makes no assumptions regarding feature representation and works with both continuous- valued and categorical features.
Assumptions	Similar inputs have similar labels.
Underlying Mathematical Principles	Entropy and Gini Impurity are the criteria used to select features and split values at each non-leaf node.
Hyperparameters	max_depth, (often alternatively maximum number of nodes), maximum samples per leaf, splitting criterion (Entropy or Gini Impurity)
Additional Details	The classifier is represented by a binary tree.
Example	Predict whether an individual will default on a loan based on credit score, age, and loan amount.