There are two types of learning- supervised and unsupervised

Supervised learning is where the dataset contains both input and output, and the algorithm aims to learn the mapping function during the training phase.

Unsupervised learning has only input data, and the algorithm learns the underlying structure or distribution of the data.

K-mean clustering: The K-means algorithm divides M points in N dimensions into K clusters with the goal of minimizing the sum of squares within each cluster. Except when M, N are small and K = 2, it is impractical to demand that the solution have a minimum sum of squares against all partitions. Instead, we're looking for "local" optima, or solutions where moving a point from one cluster to another has no effect on the sum of squares within that cluster.

Decision Tree Classifier: By creating a decision tree, the decision tree classifier (creates the classification model). Each node in the tree represents a test on an attribute, and each branch descending from that node represents one of the property's possible values. Each leaf represents one of the instance's class labels. The training set's instances are categorized by navigating them from the root of the tree to a leaf, based on the results of the tests along the way. Each node in the tree splits the instance space into two or more sub-spaces based on an attribute test condition, starting with the root node. A new node is produced by moving down the tree branch matching to the value of the attribute. This process is then repeated for the subtree rooted at the new node, until all records in the training set have been classified.

Random Forest: Random Forest is a machine learning technique that mixes the output of numerous decision trees to produce a single outcome. Its popularity is due to its ease of use and adaptability, since it can handle both classification and regression problems. Because it uses both bagging and feature randomness to produce an uncorrelated forest of decision trees, the random forest technique is an extension of the bagging method. Feature bagging, or "the random subspace approach," is another name for feature randomness.