Random Forest Example¶

Random Forest is like a collection of many decision trees.

It's an ensemble learning method primarily used for classification and regression tasks. Mostly use for classification.

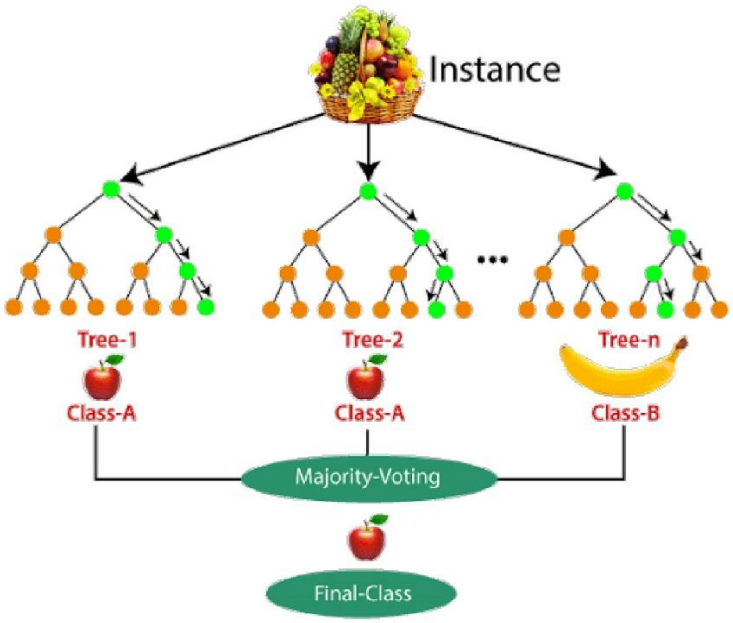
Decision Trees: A decision tree is a flowchart-like structure where each internal node represents a decision based on a feature, each branch represents the outcome of that decision, and each leaf node represents a final prediction (like a yes/no answer or a specific value).

1) **How it works**

Training: When you train a Random Forest, it creates multiple decision trees from the training data. Each tree is made using a random subset of the data and a random subset of the features.

When you use the Random Forest to make a prediction, each decision tree in the forest gives its own prediction. For classification tasks, the forest takes a "vote" among all the trees to decide the most popular class. For regression tasks, it averages the predictions from all the trees.

In summary, a Random Forest is a bunch of decision trees working together to make better predictions.



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