

Definition of Random Forest:

It is a machine learning model that relies on the idea of constructing multiple decision trees and combining their results to obtain a final prediction or decision.

Uses of Random Forest:

1. Classification: Used in data classification problems.
2. Prediction: Can be employed for predicting future values or events.
3. Pattern Discovery: Assists in examining relationships and patterns in data.

Advantages of Random Forest:

1. Robust to Noise: Can handle inconsistent or missing data.
2. Accuracy: Effective in dealing with large and complex datasets.
3. Capable of handling a large number of variables.

Disadvantages of Random Forest:

1. Interpretability Challenge: May be difficult to understand how the model makes decisions due to the complexity of multiple tree structures.
2. Time and Resources: Building multiple trees and aggregating results can require time and resources.

The Accuracy of Random Forest in this code: 0.97