**Random Forest**

**Problem Statement** – Prediction of heart disease based on different variables like age, sex and cholesterol level.

**Building Model steps** –

1. Read and clean the dataset
2. Splitting the Data into Training and Testing Sets
3. Fitted decision tree with default hyperparameters
4. Again, fitted decision tree after specifying minimum samples before split and after specifying minimum samples in leaf node.
5. Fitted decision tree using hyperparameter tuning using Grid Search Cross-validation method.
6. Built model using Random Forest Classifier.
7. Again, performed hyperparameter tuning for Random Forest using Grid Search Cross-validation method.
8. Calculated feature importance values for each feature and identified most important features from the dataset affecting the target variable.