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# Exp 9: Random Forest Classification using Iris Dataset

**AIM:** To Understand and Implement the Random Forest Classification.

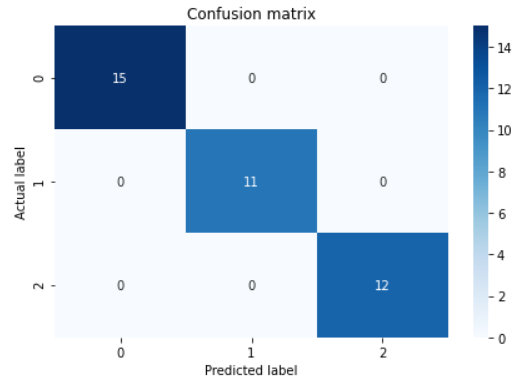
**Problem Description:**

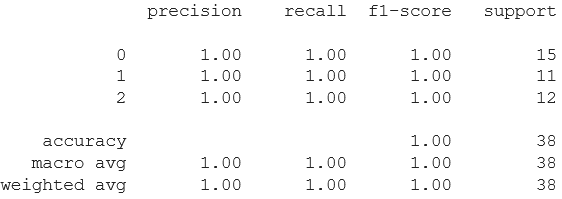
Here, we have the classic and simple Iris Dataset which contains 3 classes of Iris flower in one column (Setosa: 0, Versicolor: 1, Virginica: 2), 50 samples of each class making a total of 150 samples. The dataset has 4 feature columns as sepal length, sepal width, petal length, and petal width. We’ll be using a random forest classifier which is basically an ensemble of decision trees. Random forests don't provide the same level of interpretability as decision trees. However, a big advantage of random forests is that we don't have to worry so much about selecting good hyper-parameter values.

**Procedure:**

1. Import the required Libraries.
2. Import and Load the Dataset from sklearn.
3. Store the features in x and the target class in y.
4. Split the Dataset into Train and Test Data.
5. Import and Apply the Random Forest Classification to train data.
6. Test the trained model with predict method by passing test data.
7. Evaluate the model using a Confusion matrix
8. Visualize the Confusion matrix using the heatmap
9. Use classification\_report() from sklearn to evaluate the model.

**Results:**

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