

Prediction using Decision Tree Algorithm

Create the Decision Tree classifier and visualize it graphically.

The purpose is if we feed any new data to this classifier, it would be able to predict the right class accordingly.

Shital More

In []:

```
In [1]: import os #Standard imports
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
In [2]: from sklearn.datasets import load_iris
```

```
In [3]: df=pd.read_csv("C:\\Users\\Shri Krupa\\Downloads\\Iris.csv")
```

```
In [4]: from sklearn import datasets
```

```
In [5]: data=datasets.load_iris()
```

```
In [6]: data.keys()
```

```
Out[6]: dict_keys(['data', 'target', 'target_names', 'DESCR', 'feature_names', 'filename'])
```

```
In [7]: data["data"][:5]
```

```
Out[7]: array([[5.1, 3.5, 1.4, 0.2],
               [4.9, 3. , 1.4, 0.2],
               [4.7, 3.2, 1.3, 0.2],
               [4.6, 3.1, 1.5, 0.2],
               [5. , 3.6, 1.4, 0.2]])
```



```
In [16]: print("Accuracy:",model.score(x_test,y_test)*100)
```

Accuracy: 95.55555555555556

conclusion

A decision tree is one of most frequently and widely used supervised machine learning algorithms that can perform both regression and classification tasks. The intuition behind the decision tree algorithm is simple, yet also very powerful.

In []: