

ASSIGNMENT 7-Decision Tree

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Problem Statement:

Construct a decision tree on a dataset.

	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	label
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa

```
{'PetalWidthCm <= 0.8': ['Iris-setosa',  
                          {'PetalWidthCm <= 1.65': [{'PetalLengthCm <= 4.95': ['Iris-versicolor',  
                                          'Iris-virginica']},  
                          'Iris-virginica']}]}
```

```
SepalLengthCm      5.1  
SepalWidthCm       2.5  
PetalLengthCm      3  
PetalWidthCm       1.1  
label              Iris-versicolor  
Name: 98, dtype: object
```

```
In [20]: ► classify_example(example, tree)
```

```
Out[20]: 'Iris-versicolor'
```

```
print(accuracy)
```

```
0.95
```