

# Data Mining



# Under Guidance: Dr.BFM

Upload dataset here



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iris.csv 3.9KB



## Dataset loaded Table

	sepal.length	sepal.width	petal.length	petal.width	variety
76	6.80000	2.80000	4.80000	1.40000	Versico
77	6.70000	3.00000	5.00000	1.70000	Versico
78	6.00000	2.90000	4.50000	1.50000	Versico
79	5.70000	2.60000	3.50000	1.00000	Versico
80	5.50000	2.40000	3.80000	1.10000	Versico
81	5.50000	2.40000	3.70000	1.00000	Versico
82	5.80000	2.70000	3.90000	1.20000	Versico
83	6.00000	2.70000	5.10000	1.60000	Versico
84	5.40000	3.00000	4.50000	1.50000	Versico
85	6.00000	3.40000	4.50000	1.60000	Versico
86	6.70000	3.10000	4.70000	1.50000	Versico
87	5.50000	2.50000	4.30000	1.30000	Versico
88	5.60000	3.00000	4.10000	1.30000	Versico
89	5.50000	2.50000	4.00000	1.30000	Versico

Select Assignment

☐ Assignment No.1☐ Assignment No.2☒ Assignment No.3 and 4☐ Assignment No.5

# Assignment 3

Information gain

Gini Index

## Gini index

```
target feature: variety  
descriptive_feature: sepal.length
```

```
split criterion: gini
```

```
remaining impurity: 0.319906
```

```
information gain: 0.347094
```

**sepal.length Gini index: 0.347094**

=====

```
target feature: variety
```

```
descriptive_feature: sepal.width
```

```
split criterion: gini
```

```
remaining impurity: 0.46737700000000004
```

```
information gain: 0.199623
```

**sepal.width Gini index: 0.199623**

=====

target feature: variety

descriptive\_feature: petal.length

split criterion: gini

remaining impurity: 0.062679

information gain: 0.604321

**petal.length Gini index: 0.604321**

=====

target feature: variety

descriptive\_feature: petal.width

split criterion: gini

remaining impurity: 0.062712

information gain: 0.604288

petal.width Gini index: 0.604288

=====

Maximum Gini index is : 0.604321 for  
feature petal.length

Decision Tree

Made with Streamlit