**LAB ASSIGNMENT – 8**

**DECISION MAKING CLASSIFIERS MEASURES**

**NAME : PRATHAPANI SATWIKA**

**REG.NO : 20BCD7160**

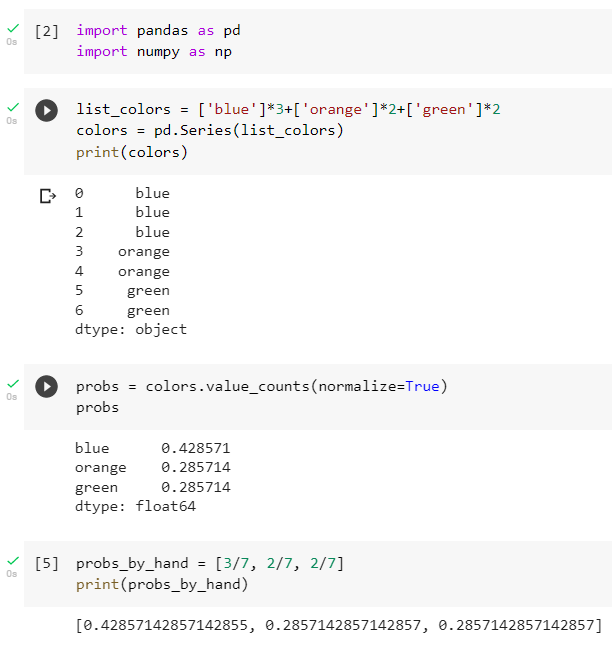
Develop python functions for the following Decision Tree measures, Information Gain, Gain Ratio, and Gini Index, and attribute types, Categorical and Numerical.

Input: A data frame consists of Attribute and its Class Label

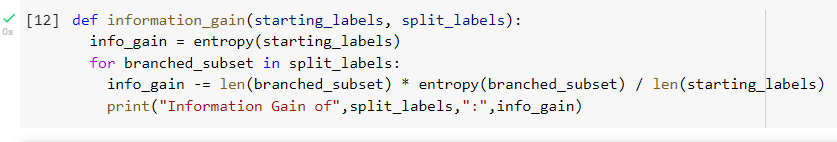
Output: Splitting Criteria, Data Partitions after splitting, and corresponding calculated measure values.

Utilize these functions to find out best splitting criteria for the following datasets: tennis.csv and iris.csv

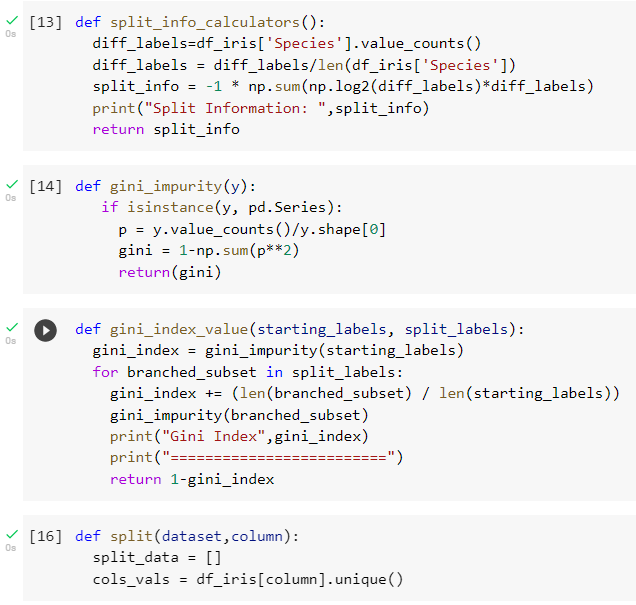
**CODE & OUTPUT :**

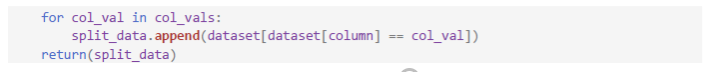
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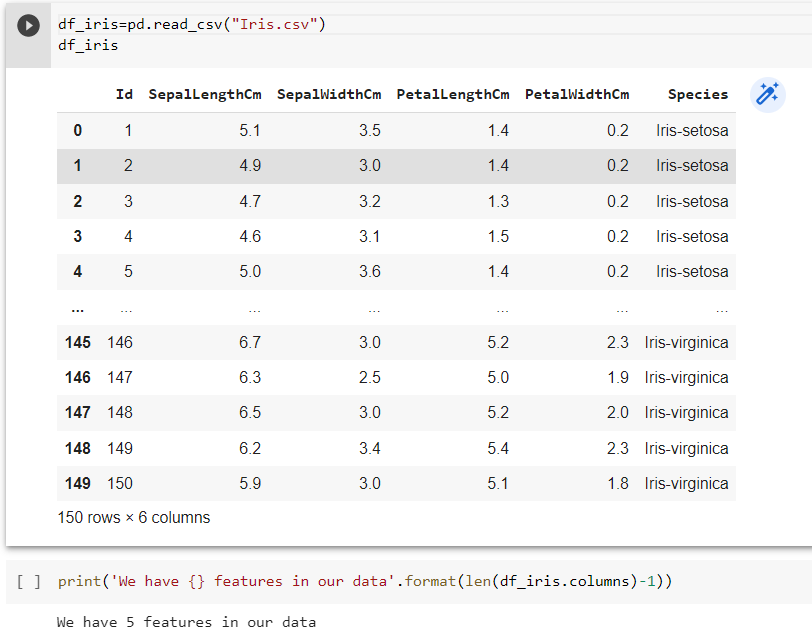
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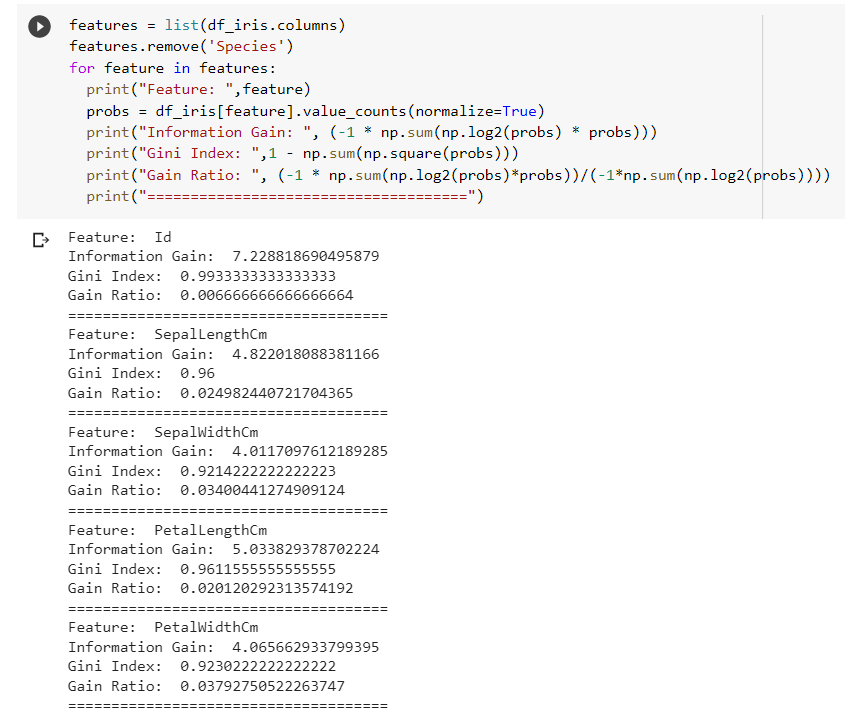
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Entropy of \*,label, \* is 0.0

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Label counts: Counter({'Iris-virginica': 1})

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Label: Iris-virginica

Probability of Iris-virginica is 1.0

Entropy of \*,label, \* is 0.0

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Probability of Iris

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Probability of Iris-

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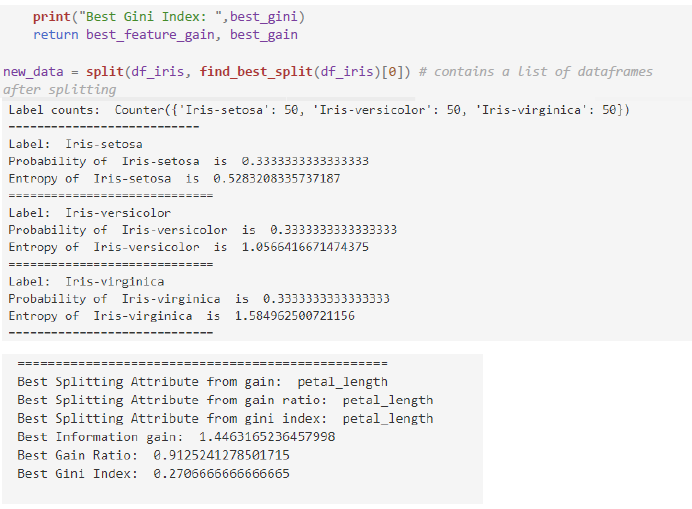
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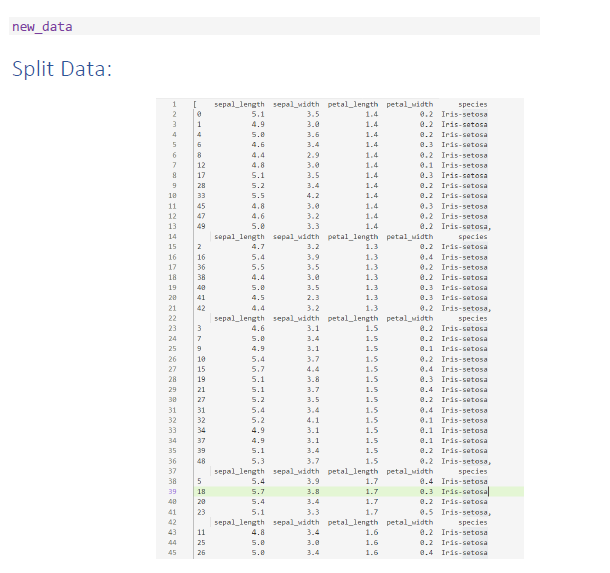
Label counts: Counter({'Iris-virginica': 1})

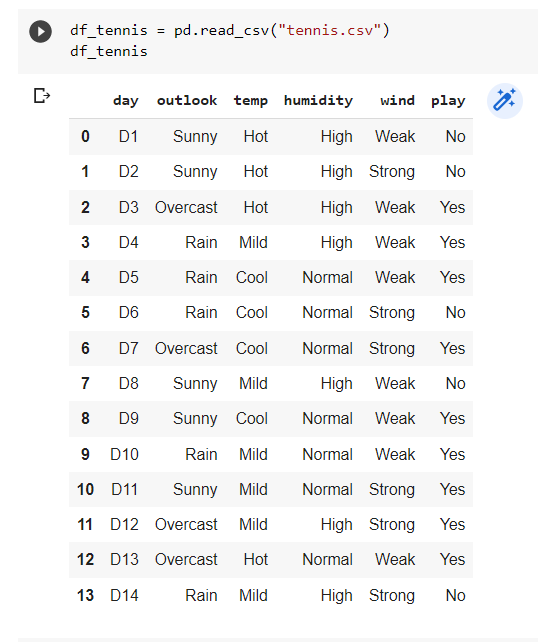
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Label: Iris-virginica

Probability of Iris-virginica is 1.0

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