Lab 03	Implement ID3 - Decision Tree Induction Algorithm
IT563 Data Mining, Winter'2019, DAIICT, Gandhinagar; pm_jat	

In this lab you implement ID3-Decision Tree Induction Algorithm.

Refer handouts of lecture (21-jan-19) for your reference.[1]

For attribute selection, you may implement only entropy based information gain.

Build decision tree for following datasets (already shared with you) using your implementation-

1. Weather Dataset
2. Train Dataset

Your program can output your tree in simple text format as following-

```
outlook = rainy
|   humidity = high: no
|   humidity = normal: yes
outlook = sunny: yes
outlook = overcast
|   windy = TRUE: no
|   windy = FALSE: yes
```

To be submitted-

1. Source code
2. Decision Trees for said datasets as above
3. Accuracy of prediction (accuracy computation will be discussed in next lecture) for 5 random examples from both datasets.

[1] You may also refer following

1. An implementation note: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.471.5158&rep=rep1&type=pdf
2. Original proposal of ID3: https://link.springer.com/content/pdf/10.1007%2FBF00116251.pdf