Some tips for PML Lab #8 Animal classification using ID3 and CART algorithms

- 1. Create animal dataset with 10 rows x 5 columns as shown in the table. Your target column can be represented with TRUE and FALSE, OR 0 or 1, as you wish.
- 2. Import the following in addition to other imports for tree visualization.

import pydotplus from sklearn import tree from io import StringlO import pydot

- 3. Create entrophy classifiere as: DecisionTreeClassifier(criterion='entropy')
- 4. Print the following tree details

How many nodes are there in your decision tree?:

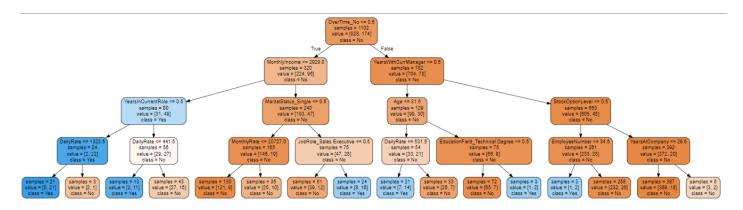
Print this value, "tree_.node_count" from your classifier variable What is the depth of the tree?

Print this value, "tree_.max_depth" from your classifier variable

5. Import the following for your tree visualization

import graphviz import matplotlib.pyplot as plt from sklearn.tree import export_graphviz from IPython.display import Image %matplotlib inline

- 6. Create the dot file (code is given in your lab manual pls check) using export_graphviz() method
- 7. Once dot file is created, then you can visualize online at http://www.webgraphviz.com/. Open and copy dot file contents and paste it here. It will generate graph for you.



8. Other activities will be very similar to the above steps

Happy Coding!