**Decision Trees and Classification Rules**

Reference: Chapter 4 **Algorithms Sections 4.3 and 4.4 (Pages 99 to 115).**   Data Mining: Practical Machine Learning Tools and Techniques (2013) by Witten, I., Frank, E. and Hall, M. A. http://www.cs.waikato.ac.nz/ml/weka/book.html

Please study the ID3 algorithm method for D.T. building, provided to you in class.

Understand how you inspect a data set and build a Decision Tree, look for Classification Rules.  Then, answer the below questions.

Inspect the data set given in the AnimalData.xls.   Then, draw manually (no code) a decision tree of three to five levels deep which classifies the animals into a mammal, bird, reptile, fish, amphibian, insect or invertebrate.    Justify your selection of the Root Node.   Limit to a depth of 3 levels only, so your Tree calculations do not become too many