

Weka Practical IV

- Read these two files if you have any weka related questions first: *How to Use Weka* **and** *WEKA Explorer User Guide*.
- Don't change any parameters until you understand them.
- Study each of the datasets by opening the .arff file in wordpad before you apply any algorithm to it. Metadata is normally included at the beginning in the file. For example, for each of the datasets for regression exercises, the purpose of the dataset, such as the class attribute, and the meaning of each attribute, etc. are explained.

Use Clustering algorithms in Weka (where it is appropriate): HierarchicalClusterer, EM and SimpleKMeans to analyse the following datasets, which can be downloaded either from the data directory in weka or from Moodle:

- iris.arff
- bmw-browsers.arff
- bank-data.csv

Note:

1. You need to convert the bank-data into arff file. The attribute PEP means a financial product. Value Yes/No means it is ok to provide this product to the customer or not.
2. You might need to select the number of clusters by yourself. The default value is 2.
3. You can visualise results by right-click a link the algorithm in the *Result list* window at the left bottom, and choosing **visualise cluster assignments**. Also you need to identify the attribute for X and Y axis. You also need to move the Jitter bar to scale the results.

References:

1. *K-Means Clustering in WEKA* in <http://facweb.cs.depaul.edu/mobasher/classes/ect584/weka/k-means.html>
2. *Data mining with WEKA, Part 2: Classification and clustering* in <http://www.ibm.com/developerworks/library/os-weka2/>
3. B. Sharma and A. Paul, *Clustering Algorithms: Study and Performance Evaluation Using Weka Tool*, International Journal of Current Engineering and Technology, Vol.3, No.3 (Aug- 2013) <http://inpressco.com/clustering-algorithms-study-and-performance-evaluation-using-weka-tool/>
4. B. Chaudhari and M. Parikh, *A Comparative Study of clustering algorithms Using weka tools*, in International Journal of Application or Innovation in Engineering & Management, Volume 1, Issue 2, October 2012 <http://ijaem.org/volume1Issue2/IJAEM-2012-10-30-062.pdf>