

# Machine Learning – WS'12

## Exercise-0

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### **Problem-1:**

Install the software package Weka 3.7: <http://www.cs.waikato.ac.nz/ml/weka/> Download the jar file and extract it. Start Weka and load “iris” data in Weka Explorer. Click the ‘Visualize’ tab, and explain (with a snapshot) the visualization of “iris” data with respect to concepts in Overview lecture.

Open the tab ‘Classify’ and try 3 classifiers one by one on ‘iris’ data: Decision Trees (J48), Neural Networks and SMO. Use 10-fold cross-validation for these experiments. Keep rest of the settings for each classifier to be as default. Describe the result in terms of accuracy (correctly classified instances). Which classifier performed the best?

### **Problem-2:**

Download and install ‘Octave’ setup from <http://sourceforge.net/projects/octave/files/Octave%20Windows%20binaries/>

While installing, when setup asks about additional packages, choose ‘image’ and ‘java’ as well. May be we need these in this course. Once you're in Octave, you can begin experimenting with the Octave commands (e.g., try typing 2+3). To get help in Octave, you can type "help command-name" (e.g., help plot). More information can also be found at <http://www.gnu.org/software/octave/doc/interpreter/>

For your own learning, a nice tutorial can be found at

<http://www-mdp.eng.cam.ac.uk/web/CD/engapps/octave/octavetut.pdf>