

Lab Sheet for AI Techniques, Part 6/7**Task 1**

Represent the following sentences in first-order logic using a consistent vocabulary.

- (a) Every student who takes French passes it.
- (b) The best score in Greek is always higher than the best score in French.
- (c) No person buys an expensive policy.
- (d) There is an agent who sells policies only to people who are not ensured.
- (e) Politicians can fool some of the people all of the time, and they can fool all of the people some of the time, but they can't fool all of the people all of the time.

Task 2

Read sections 2 and 3 from chapter 10 of the book "Natural Language Processing with Python – Analyzing Text with the Natural Language Toolkit" by Steven Bird, Ewan Klein, and Edward Loper, <http://www.nltk.org/book/>

Copy some code examples of your choice into your Python environment, analyse and run them, explain the results to your tutor.

You need a Python distribution with the NLTK library for that. Here are some options:

- On NTU machines, start "Python 3.4.1" from SoftwareHub. It includes a number of important AI libraries.
- On your own laptop, type "pip3 install nltk" or, if that doesn't work, "pip install nltk", into a terminal. A Python distribution needs to be already installed for that.
- Download WinPython on any Windows machine. It can run without installation, so you do not need administrator rights.

Note that we will use the NLTK library again in part C (natural language processing) of this module, so any effort you put into it now will pay later.