### Assignment on Chapter 2 in “*Natural Language Processing with Python --- Analyzing Text with the Natural Language Toolkit” by* Steven Bird, Ewan Klein, and Edward Loper

You will find Chapter 2 posted at:

<http://www.nltk.org/book/ch02.html>

Section 8 lists exercises. You will be asked to complete some of the exercises. On the Canvas file named

nltkChapter2\_template.py

is posted. You are requested to use this template in formulating your code solutions.

Complete the following of the exercises:

1. exercise 2
2. exercise 5 In this question, consider at least 10 pairs of nouns that you believe lexically related via holonym-meronym relation. List these pairs. Then verify your assumption using Wordnet related methods of NLTK. Provide output by NLTK. Provide summary on how often NLTK supported your conjecture.
3. exercise 9 In this question, consider text1 and text7. Find at least three pairs of words which have quite different meanings across the two texts. Support your conjecture by your NLTK-based findings.
4. exercise 11
5. exercise 13
6. exercise 18 In addition to omitting stopwords also omit punctuation. Run your function on Brown corpus. What are the first 5 bigrams your function outputs.
7. exercise 27 What are the values you have computed. Note that the same lemma may occur in different synsets. Your code should account for this fact.

Submit

* printed solutions to the assignment on a due date in the beginning of the class.
* file nltkChapter2\_template.py (populated with your coding solutions) via Canvas 30 minutes before the class on a due date.