- What is Spacy?
  - Open Source Natural Language Processing Library.
  - Designed to effectively handle NLP tasks with the most efficient implementation of common algorithms.

- What is NLTK?
  - NLTK - Natural Language Toolkit is a very popular open source.
  - Initially released in 2001, it is much older than Spacy (released 2015).
  - It also provides many functionalities, but includes less efficient implementations.

- NLTK vs Spacy
  - For many common NLP tasks, Spacy is much faster and more efficient, at the cost of the user not being able to choose algorithmic implementations.

- NLTK vs Spacy
  - In this course, due to Spacy's state of the art approach and efficiency, we will focus on Spacy, but use NLTK when it is easier to use.
  - By the end of the course, you should feel comfortable utilizing both libraries when they are best suited for a task.

- NLTK vs Spacy Processing Tests

	ABSOLUTE (MS PER DOC)			RELATIVE (TO SPACY)		
SYSTEM	TOKENIZE	TAG	PARSE	TOKENIZE	TAG	PARSE
spaCy	0.2ms	1ms	19ms	1x	1x	1x
CoreNLP	0.18ms	10ms	49ms	0.9x	10x	2.6x
ZPar	1ms	8ms	850ms	5x	8x	44.7x
NLTK	4ms	443ms	*n/a*	20x	443x	*n/a*

https://spacy.io/usage/facts-figures

	SPACY	SYNTAXNET	NLTK	CORENLP
Programming language	Python	C++	Python	Java
Neural network models	✓	✓	✗	✓
Integrated word vectors	✓	✗	✗	✗
Multi-language support	✓	✓	✓	✓
Tokenization	✓	✓	✓	✓
Part-of-speech tagging	✓	✓	✓	✓
Sentence segmentation	✓	✓	✓	✓
Dependency parsing	✓	✓	✗	✓
Entity recognition	✓	✗	✓	✓
Coreference resolution	✗	✗	✗	✓