1. Introduction to NLP
2. Text Preprocessing
   - Noise Removal
   - Lexicon Normalization
     - Lemmatization
     - Stemming
   - Object Standardization
3. Text to Features (Feature Engineering on text data)
   - Syntactical Parsing
     - Dependency Grammar
     - **Part of Speech Tagging**
   - Entity Parsing
     - Phrase Detection
     - Named Entity Recognition
     - **Topic Modelling**
     - **N-Grams. ..worth saying !...**
   - Statistical features
     - TF - IDF
     - Frequency / Density Features
     - Readability Features
   - Word Embeddings
4. Important tasks of NLP
   - Text Classification
   - Text Matching
     - Levenshtein Distance
     - Phonetic Matching
     - Flexible String Matching
5. Important NLP libraries

SL :(Classifier) Naives bayes classier, decision tree classifier, SVM

USL: Latent Dirichlet Allocation (text clustering algorithm), Latent Semantic Analysis (text mining and information retrieval.

Useful libraries:

- **Scikit-learn:** Machine learning in Python
- **Natural Language Toolkit (NLTK)**: The complete toolkit for all NLP techniques.
- **spaCy** – Industrial strength N LP with Python and Cython.
- **Gensim** – Topic Modelling for Humans
- Stanford Core NLP – NLP services and packages by Stanford NLP Group. Useful libraries:
- Pattern – A web mining module for the with tools for NLP and machine learning.
- TextBlob – Easy to use nlp tools API, built on top of NLTK and Pattern.