

Assignment 2 Writeup
Xinyu Zheng

1. Deliverables

- 1) 3 combined counts for all ten files (use Query String Authentication for one of these files)
- 2) 30 summary counts for each individual file
- 3) a writeup explaining the details

2. Libraries I used

- 1) nltk – natural language toolkit which provides easy-to-use interfaces to over 50 corpora and lexical resources. Libraries used in this library include: stem, word-tokenize, stopwords, bigrams, and trigrams.
- 2) unicodedata - provides access to the Unicode Character Database which defines character properties for all Unicode characters.
- 3) string - contains a number of useful constants and classes, as well as some deprecated legacy functions that are also available as methods on strings.

3. Process of text processing

- 1) Process an individual document
 - Tokenize the document into a bunch of unitokens (unigrams)
 - Remove unigrams that are stop words in stop words set
 - Stem unigrams
 - Remove digits and numbers from unigrams
 - Remove single letters from unigrams
 - Remove special characters from unigrams
 - Create bigrams and trigrams for the document
 - Calculate counts for unigrams, bigrams
- 2) Process a combined document
 - Tokenize each document and combine all unitokens (unigrams) into one document
 - Repeat the process of individual document processing (shown as above)

4. Something more

Comments are provided with the code.