

```
In [2]: import nltk
from nltk.corpus import stopwords
# list of words with no meaning
stopwords.words('english') #at last we remove the. But for sequential we do not discard
```

```
Out[2]: ['i',
'me',
'my',
'myself',
'we',
'our',
'ours',
'ourselves',
'you',
"you're",
"you've",
"you'll",
"you'd",
'your',
'yours',
'yourself',
'yourselves',
'he',
'him',
'his',
'himself',
'she',
"she's",
'her',
'hers',
'herself',
'it',
"it's",
'its',
'itself',
'they',
'them',
'their',
'theirs',
'themselves',
'what',
'which',
'who',
'whom',
'this',
'that',
"that'll",
'these',
'those',
'am',
'is',
'are',
'was',
'were',
'be',
'been',
'being',
'have',
'has',
'had',
'having',
'do',
'does',
'did',
'doing',
'a',
'an',
'the',
'and',
'but',
'if',
'or',
'because',
'as',
'until',
'while',
'of',
'at',
'by',
'for',
'with',
'about',
```

'against',
'between',
'into',
'through',
'during',
'before',
'after',
'above',
'below',
'to',
'from',
'up',
'down',
'in',
'out',
'on',
'off',
'over',
'under',
'again',
'further',
'then',
'once',
'here',
'there',
'when',
'where',
'why',
'how',
'all',
'any',
'both',
'each',
'few',
'more',
'most',
'other',
'some',
'such',
'no',
'nor',
'not',
'only',
'own',
'same',
'so',
'than',
'too',
'very',
's',
't',
'can',
'will',
'just',
'don',
'don't',
'should',
'should've',
'now',
'd',
'll',
'm',
'o',
're',
've',
'y',
'ain',
'aren',
'aren't',
'couldn',
'couldn't',
'didn',
'didn't',
'doesn',
'doesn't',
'hadn',
'hadn't',
'hasn',
'hasn't',
'haven',
'haven't',
'isn',
'isn't',

```
'ma',
'mightn',
'mightn't",
'mustn',
'mustn't",
'needn',
'needn't",
'shan',
'shan't",
'shouldn',
'shouldn't",
'wasn',
'wasn't",
'weren',
'weren't",
'won',
'won't",
'wouldn',
'wouldn't"]
```

```
In [3]: from nltk.corpus import cmudict
entries=nltk.corpus.cmudict.entries()
len(entries)
for entry in entries[10000:10025]:
    print(entry)

('belford', ['B', 'EH1', 'L', 'F', 'ER0', 'D'])
('belfry', ['B', 'EH1', 'L', 'F', 'R', 'IY0'])
('belgacom', ['B', 'EH1', 'L', 'G', 'AH0', 'K', 'AA0', 'M'])
('belgacom', ['B', 'EH1', 'L', 'JH', 'AH0', 'K', 'AA0', 'M'])
('belgard', ['B', 'EH0', 'L', 'G', 'AA1', 'R', 'D'])
('belgarde', ['B', 'EH0', 'L', 'G', 'AA1', 'R', 'D', 'IY0'])
('belge', ['B', 'EH1', 'L', 'JH', 'IY0'])
('belger', ['B', 'EH1', 'L', 'G', 'ER0'])
('belgian', ['B', 'EH1', 'L', 'JH', 'AH0', 'N'])
('belgians', ['B', 'EH1', 'L', 'JH', 'AH0', 'N', 'Z'])
('belgique', ['B', 'EH0', 'L', 'ZH', 'IY1', 'K'])
('belgique's', ['B', 'EH0', 'L', 'JH', 'IY1', 'K', 'S'])
('belgium', ['B', 'EH1', 'L', 'JH', 'AH0', 'M'])
('belgium's', ['B', 'EH1', 'L', 'JH', 'AH0', 'M', 'Z'])
('belgo', ['B', 'EH1', 'L', 'G', 'OW2'])
('belgrade', ['B', 'EH1', 'L', 'G', 'R', 'EY0', 'D'])
('belgrade', ['B', 'EH1', 'L', 'G', 'R', 'AA2', 'D'])
('belgrade's', ['B', 'EH1', 'L', 'G', 'R', 'EY0', 'D', 'Z'])
('belgrade's', ['B', 'EH1', 'L', 'G', 'R', 'AA2', 'D', 'Z'])
('belgrave', ['B', 'EH1', 'L', 'G', 'R', 'EY2', 'V'])
('beli', ['B', 'EH1', 'L', 'IY0'])
('belich', ['B', 'EH1', 'L', 'IH0', 'K'])
('belie', ['B', 'IH0', 'L', 'AY1'])
('belied', ['B', 'IH0', 'L', 'AY1', 'D'])
('belief', ['B', 'IH0', 'L', 'IY1', 'F'])
```

```
In [5]: from nltk.corpus import wordnet as wn
wn.synsets('motorcar')
wn.synset('car.n.01')
```

Out[5]: Synset('car.n.01')

```
In [6]: # STEMMING
from nltk.stem import PorterStemmer
from nltk.stem import LancasterStemmer
stemmerporter=PorterStemmer()
stemmerporter1=LancasterStemmer()
```

```
In [15]: stemmerporter.stem('happiness')
```

Out[15]: 'happi'

```
In [12]: stemmerporter.stem('Thinking')
```

Out[12]: 'think'

```
In [13]: stemmerporter.stem('Laughing')
```

```
Out[13]: 'laugh'
```

```
In [14]: stemmerporter1.stem('happiness')
```

```
Out[14]: 'happy'
```

```
In [20]: from nltk.stem import RegexpStemmer
stemmerregex=RegexpStemmer('learn')
stemmerregex.stem('learning')
```

```
Out[20]: 'ing'
```

```
In [21]: stemmerregex1=RegexpStemmer('ing')
stemmerregex1.stem('singing')
```

```
Out[21]: 's'
```

```
In [9]: from nltk.stem import SnowballStemmer #supports internation languages
SnowballStemmer.languages
frenchstemmer=SnowballStemmer('french')
frenchstemmer.stem('manges')
```

```
Out[9]: 'mang'
```

```
In [10]: sent="Become an expert in nlp"
words=nltk.word_tokenize(sent)
print(words)
```

```
['Become', 'an', 'expert', 'in', 'nlp']
```

```
In [ ]: texts="Over the years, advancements in the work have been incorporated towards professor relationships and data c
for text in texts:
    sentences=nltk.sent_tokenization(text) #list of sentences
    for sentence in sentences:
        words=nltk.word_tokenize(sentence)
        print(words)
        tagged=nltk.pos_tag(words)
        print(tagged)
```