

## TOOL

# Library and Functions M3

Below are short examples of functions and methods that are used in Module 3.

### Parts-of-Speech (POS) Tagging

```
import nltk
nltk.pos_tag(w1)
nltk.help.upenn_tagset()
```

### Parsing

```
import nltk
sNounPhraseGrammar = 'NP: {<DT>?<JJ>*<NN.*>*}'
cp = nltk.RegexpParser(sNounPhraseGrammar)
treeNews = cp.parse(LTsNewsTags)
```

### Parsing with SpaCy

```
import spacy
spacy.load('en_core_web_sm')
nlp(s)
spacy.displacy.render(nlp(s), style='ent', jupyter=True)
```

```
LTsTags = [(token.text, token.tag_, token.dep_, token.head.text,
token.head.tag_) for token in nlp(s)]
```

### Creating Grammar Tree for Sentence

```
import nltk
nltk.CFG.fromstring(gr)
list(nltk.ChartParser(nltk.CFG.fromstring(gr)).parse(w1))
```

### Drawing Trees with svgling

```
import svgling
svgling.draw_tree(tree)
```

