

Experiment 05

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▼ Parts of Speech

```
text = "TON 618 (short for Tonantzintla 618) is a hyperluminous, broad-absorption-line, radio-loud quasar and Lyman-alpha blob located near t
```

▼ Importing necessary dependencies

```
import nltk
from nltk.tokenize import word_tokenize
nltk.download('punkt')
nltk.download('averaged_perceptron_tagger')

[nltk_data] Downloading package punkt to /root/nltk_data...
[nltk_data] Package punkt is already up-to-date!
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data] /root/nltk_data...
[nltk_data] Unzipping taggers/averaged_perceptron_tagger.zip.
True
```

▼ Word Tokenization

```
words = word_tokenize(text)
```

▼ Parts of Speech Tagging

```
tagged_words = nltk.pos_tag(words, tagset = 'universal')
```

```
tagged_words
```

```
for t in tagged_words:
    print(t)

('TON', '.')
('618', 'NUM')
('(', '.')
('short', 'ADJ')
('for', 'ADP')
('Tonantzintla', 'NOUN')
('618', 'NUM')
(')', '.')
('is', 'VERB')
('a', 'DET')
('hyperluminous', 'ADJ')
(',', '.')
('broad-absorption-line', 'ADJ')
(',', '.')
('radio-loud', 'ADJ')
('quasar', 'NOUN')
('and', 'CONJ')
('Lyman-alpha', 'NOUN')
('blob', 'NOUN')
('located', 'VERB')
('near', 'ADP')
('the', 'DET')
('border', 'NOUN')
('of', 'ADP')
('the', 'DET')
('constellations', 'NOUN')
('Canes', 'NOUN')
('Venatici', 'NOUN')
('and', 'CONJ')
('Coma', 'NOUN')
('Berenices', 'NOUN')
(',', '.')

```

```
('with', 'ADP')
('the', 'DET')
('projected', 'VERB')
('comoving', 'NOUN')
('distance', 'NOUN')
('of', 'ADP')
('approximately', 'ADV')
('18.2', 'NUM')
('billion', 'NUM')
('light-years', 'NOUN')
('from', 'ADP')
('Earth', 'NOUN')
('.', '.')
```