

Artificial Intelligence Lab - 11

Aim : Implementation of NLP – Tagging a part of speech

Working Principle :

In natural language processing, human language is separated into fragments so that the grammatical structure of sentences and the meaning of words can be analyzed and understood in context.

- Part-of-speech-tagging: marking up words as nouns, verbs, adjectives, adverbs, pronouns, etc

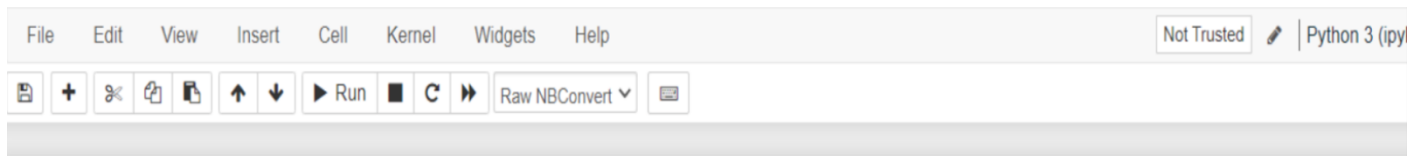
In python the availability of nltk makes the working of nlp very easy and efficient.

The word tokeniser splits the given sentence into words and then the pos_tag helps in identification of the the parts of speech and tag them accordingly.

Code :

```
from nltk.tokenize import word_tokenize
sagan_quote = """If you wish to make an apple pie from scratch, you must first
invent the universe."""
words_in_sagan_quote = word_tokenize(sagan_quote)
import nltk
nltk.pos_tag(words_in_sagan_quote)
#Tagging the parts of speech
```

Output :



```
In [1]: from nltk.tokenize import word_tokenize
sagan_quote = """If you wish to make an apple pie from scratch, you must first invent the universe."""
words_in_sagan_quote = word_tokenize(sagan_quote)
```

```
In [2]: import nltk
nltk.pos_tag(words_in_sagan_quote)
#Tagging the parts of speech
```

```
Out[2]: [('If', 'IN'),
('you', 'PRP'),
('wish', 'VBP'),
('to', 'TO'),
('make', 'VB'),
('an', 'DT'),
('apple', 'NN'),
('pie', 'NN'),
('from', 'IN'),
('scratch', 'NN'),
(',', ','),
('you', 'PRP'),
('must', 'MD'),
('first', 'VB'),
('invent', 'VB'),
('the', 'DT'),
('universe', 'NN'),
('.', '.')]

```

Result :

Hence, the Implementation of NLP for tagging parts of speech is done successfully.