

In [2]: `import nltk`

```
nltk.download('punkt')
nltk.download('averaged_perceptron_tagger')
```

```
[nltk_data] Downloading package punkt to
[nltk_data] C:\Users\xxx3k\AppData\Roaming\nltk_data...
[nltk_data] Package punkt is already up-to-date!
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data] C:\Users\xxx3k\AppData\Roaming\nltk_data...
[nltk_data] Package averaged_perceptron_tagger is already up-to-
[nltk_data] date!
```

Out[2]: True

```
In [3]: def get_pos_tags(sentence):
        tokens = nltk.word_tokenize(sentence)
        pos_tags = nltk.pos_tag(tokens)
        return pos_tags
```

```
In [4]: sentence = "The quick brown fox jumps over the lazy dog."
        pos_tags = get_pos_tags(sentence)
        print(pos_tags)
```

```
[('The', 'DT'), ('quick', 'JJ'), ('brown', 'NN'), ('fox', 'NN'), ('jumps', 'V
BZ'), ('over', 'IN'), ('the', 'DT'), ('lazy', 'JJ'), ('dog', 'NN'), ('.',
'.')]
```

```
In [5]: def get_sentence_structure(sentence):
        pos_tags = get_pos_tags(sentence)
        structure = {}
        for i in range(len(pos_tags)):
            if pos_tags[i][1].startswith('V'):
                structure['verb'] = pos_tags[i][0]
                if i > 0:
                    structure['subject'] = pos_tags[i-1][0]
                if i < len(pos_tags)-1:
                    structure['object'] = pos_tags[i+1][0]
        return structure
```

```
In [6]: sentence = "The quick brown fox jumps over the lazy dog."
        structure = get_sentence_structure(sentence)
        print(structure)
```

```
{'verb': 'jumps', 'subject': 'fox', 'object': 'over'}
```

In []: