Aim: Implement POS Tagging

Objective: To study POS tagging and implement POS tagging using NLTK package in python.

Theory: The primary target of POS tagging is to identify the grammatical group of a given word. Whether it is a NOUN, PRONOUN, ADVERB, ADJECTIVE, VERB etc. based on the context. POS tagging looks for relationships within the sentence and assigns a corresponding tag to a word.

POS Tagging(Parts of speech tagging) is the process to make up the words in the text format for a particular part of speech based on its definition and context. It is responsible for the text reading in a language and assigning some specific token to each word. It is also called grammatical tagging.

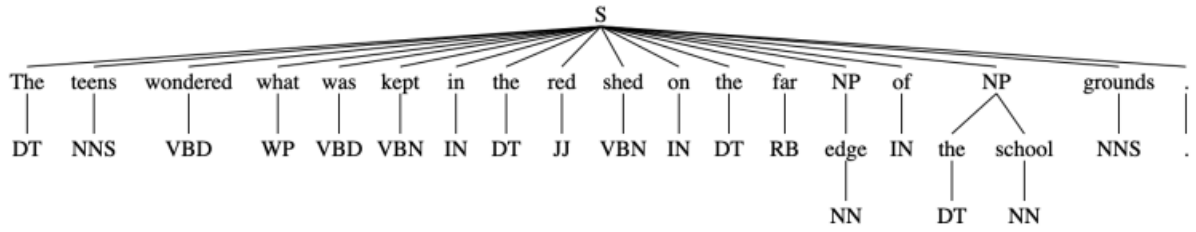
Steps involved in the POS tagging Example:

- Tokenize text
- Apply POS tag to above step, that is nltk pos tag.

Program:

```
import nltk

from nltk import word_tokenize

text = "The teens wondered what was kept in the red shed on the far edge of the school grounds."

tokensied_text=word_tokenize(text)

 tokensied_text

pos_tagged_text = nltk.pos_tag(tokensied_text)

pos_tagged_text

!pip3 install svgling

parsed_text = regParse.parse(pos_tagged_text)

parsed_text
```

Output: [('The', 'DT'), ('teens', 'NNS'), ('wondered', 'VBD'), ('what', 'WP'), ('was', 'VBD'), ('kept', 'VBN'), ('in', 'IN'), ('the', 'DT'), ('red', 'JJ'), ('shed', 'VBN'), ('on', 'IN'), ('the', 'DT'), ('far', 'RB'), ('edge', 'NN'), ('of', 'IN'), ('the', 'DT'), ('school', 'NN'), ('grounds', 'NNS'), ('.', '.')]



Conclusion: Part-of-Speech (POS) tagging is a vital NLP task that assigns grammatical categories (e.g., noun, verb, adjective) to each word in a text. It helps in understanding the syntactic structure and semantics of a sentence. Below is the result of POS tagging for the given input text: