

[Day-8 2211cs020196]Write a Python script that:
1. Tokenizes a sample paragraph into words
and sentences.

```
In [2]: 1 !pip install nltk
2 import nltk
3 nltk.download('punkt')
4 def tokenize_text(paragraph):
5     sentences = nltk.sent_tokenize(paragraph)
6     words = [nltk.word_tokenize(sentence) for sentence in sentences]
7     return sentences, words
8 paragraph = """
9 Tokenization is the process of breaking text into smaller units called tokens.
10 These tokens can be words, sentences, or even smaller units. Tokenization is an
11 important step in text preprocessing.
12 """
13 sentences, words = tokenize_text(paragraph)
14 print("Sentences:")
15 for sentence in sentences:
16     print(sentence)
17 print("\nWords:")
18 for word_list in words:
19     print(word_list)
20
```

Requirement already satisfied: nltk in d:\python\lib\site-packages (3.8.1)
Requirement already satisfied: click in d:\python\lib\site-packages (from nltk) (8.0.4)
Requirement already satisfied: joblib in d:\python\lib\site-packages (from nltk) (1.2.0)
Requirement already satisfied: regex>=2021.8.3 in d:\python\lib\site-packages (from nltk) (2022.7.9)
Requirement already satisfied: tqdm in d:\python\lib\site-packages (from nltk) (4.65.0)
Requirement already satisfied: colorama in d:\python\lib\site-packages (from click->nltk) (0.4.6)
Sentences:

Tokenization is the process of breaking text into smaller units called tokens.
These tokens can be words, sentences, or even smaller units.
Tokenization is an
important step in text preprocessing.

Words:

```
['Tokenization', 'is', 'the', 'process', 'of', 'breaking', 'text', 'into', 'smaller', 'units', 'called', 'tokens', '.']
['These', 'tokens', 'can', 'be', 'words', ',', 'sentences', ',', 'or', 'even', 'smaller', 'units', '.']
['Tokenization', 'is', 'an', 'important', 'step', 'in', 'text', 'preprocessing', '.']
```

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