

a. Text Tokenization using python split().

Code:

```
text = "this tool is on beta stage."  
data = text.split()  
for i in data:  
    print (i)
```

Output:

```
= RESTART: D:/MSc.I'  
this  
tool  
is  
on  
eta  
stage.  
> |
```

b. Text Tokenization using python Regex.

Code:

```
import nltk
from nltk.tokenize import RegexpTokenizer

tk = RegexpTokenizer(r'\s+', gaps=True) # Use raw string (r'\s+')
text = "this tool is on beta stage."
tokens = tk.tokenize(text)
print(tokens)
```

Output:

```
-- RESTART: D:/MSC.IT/SEM_4/NLP/NLP_practical/N.
['this', 'tool', 'is', 'on', 'beta', 'stage.']
>
```

c. Text Tokenization using python NLTK.

Code:

```
import nltk
from nltk.tokenize import word_tokenize
str = "this tool is on beta stage."
print(word_tokenize(str))
```

Output:

```
-- RESTART: D:/MSC.IT/SEM_4/NLP/NLP_practical/NLP_prac_codes/nltk
['this', 'tool', 'is', 'on', 'beta', 'stage', '.']
```

d. Text Tokenization using spacy library.

Code:

#NOTE: code in colab

```
import spacy
```

```
nlp = spacy.blank("en")
```

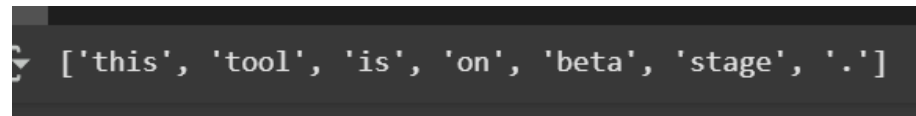
```
str = "this tool is on beta stage."
```

```
doc = nlp(str)
```

```
words = [word.text for word in doc]
```

```
print(words)
```

Output:



```
[ 'this', 'tool', 'is', 'on', 'beta', 'stage', '.'
```

e. Text Tokenization using Keras.

Code:

```
import tensorflow
import keras
from tensorflow.keras.preprocessing.text import text_to_word_sequence
str = "this tool is on beta stage."
tokens = text_to_word_sequence(str)
print(tokens)
```

Output:

```
===== RESTART: D:/MSC.IT/SEM_4/NLP/NLP1
['this', 'tool', 'is', 'on', 'beta', 'stage']
```