

:[2] In

```
!pip install NLTK
```

```
Requirement already satisfied: NLTK in g:\anacondaprogram\lib\site-pac
(kages (3.5
Requirement already satisfied: joblib in g:\anacondaprogram\lib\site-p
(ackages (from NLTK) (0.16.0
Requirement already satisfied: click in g:\anacondaprogram\lib\site-pa
(ckages (from NLTK) (7.1.2
Requirement already satisfied: regex in g:\anacondaprogram\lib\site-pa
(ckages (from NLTK) (2020.6.8
Requirement already satisfied: tqdm in g:\anacondaprogram\lib\site-pac
(kages (from NLTK) (4.47.0
```

:[8] In

```
import nltk
```

:[9] In

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

```
nltk_data] Downloading package punkt to]
...nltk_data]      C:\Users\user\AppData\Roaming\nltk_data]
.nltk_data]      Unzipping tokenizers\punkt.zip]
```

Out[9]:

True

:[11] In

```
text=" Welcome readers. I hope you find it interesting. Please do reply."
```

:[12] In

```
from nltk.tokenize import sent_tokenize
```

:[21] In

```
print(sent_tokenize(text)) # ex 2 page 2 // how many sentecne you had 3 // how man
```

```
Welcome readers.', 'I hope you find it interesting.', 'Please do re ']  
['.ply
```

:[29] In

```
import nltk  
tokenizer = nltk.data.load("tokenizers/punkt/english.pickle")
```

:[30] In

```
text=" Welcome readers. I hope you find it interesting. Please do reply." # sec seq
```

:[31] In

```
tokenizer.tokenize(text) # sec seq
```

Out[31]:

```
Welcome readers.', 'I hope you find it interesting.', 'Please do re ']\n['.ply
```

:[32] In

```
Arabic_text="مرحبا بكم. نحن نتعلم اساسيات مبادئ استرجاع المعلومات" # third seq
```

:[33] In

```
tokenizer.tokenize(Arabic_text) # third seq
```

Out[33]:

```
['مرحبا بكم.', 'نحن نتعلم اساسيات مبادئ استرجاع المعلومات']
```

:[34] In

```
nlTK.word_tokenize(text)
```

Out[34]:

```
, 'Welcome']\n, 'readers'\n, '.'\n, 'I'\n, 'hope'\n, 'you'\n, 'find'\n, 'it'\n, 'interesting'\n, '.'\n, 'Please'\n, 'do'\n, 'reply'\n['.']
```

:[35] In

```
tex=input() # ex 3
```

```
faisal sami alharbi
```

:[36] In

```
nlTK.word_tokenize(tex) # ex 3
```

Out[36]:

```
['faisal', 'sami', 'alharbi']
```

:[37] In

```
from nlTK.tokenize import TreebankWordTokenizer
```

:[38] In

```
tokenizer = TreebankWordTokenizer()
```

:[39] In

```
tokenizer.tokenize("Have a nice day. You do great!")
```

Out[39]:

```
[['!' , 'Have', 'a', 'nice', 'day.', 'You', 'do', 'great']
```

:[44] In

```
from nltk.tokenize import RegexpTokenizer
```

:[48] In

```
tokenizer=RegexpTokenizer("[\w]+"+"\"S+@\"S+")
```

:[49] In

```
tokenizer.tokenize("Don't hesitate to ask questions or send to me your question to :[38] In
```

Out[49]:

```
['faisal@gmail.com']
```

:[55] In

```
text=[" It is a pleasant evening.", "Guests, who came from US arrived at the venue",
```

:[56] In

```
from nltk.tokenize import word_tokenize
```

:[57] In

```
tokenized_docs=[word_tokenize(doc) for doc in text]
```

:[58] In

```
print(tokenized_docs)
```

```
It', 'is', 'a', 'pleasant', 'evening', '.'], ['Guests', ',', 'wh']]
o', 'came', 'from', 'US', 'arrived', 'at', 'the', 'venue'], ['Food',
[['.', 'was', 'tasty
```

:[59] In

```
import re
import string
```

:[61] In

```
x=re.compile('[%s]' % re.escape(string.punctuation))
```

:[62] In

```
tokenized_docs_no_punctuation = []
```

:[65] In

```
for review in tokenized_docs:
    new_review = []
    for token in review:
        new_token = x.sub(u'', token)
        if not new_token == u'':
            new_review.append(new_token)
    tokenized_docs_no_punctuation.append(new_review)
```

:[66] In

```
print(tokenized_docs_no_punctuation)

[['Food', 'was', 'tasty']]
```

:[67] In

```
print(text[0].upper())

.IT IS A PLEASANT EVENING
```

:[69] In

```
print(text[0].lower())

.it is a pleasant evening
```

:[5] In

```
import nltk
```

:[6] In

```
nltk.download('stopwords')

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

Out[6]:

True

:[7] In

```
from nltk.corpus import stopwords
```

:[8] In

```
stops=set(stopwords.words('english'))
```

:[9] In

```
words=["Don't",'hesitate','to','ask','questions']
[word for word in words if word not in stops]
```

Out[9]:

```
['Don't', 'hesitate', 'ask', 'questions']
```

:[10] In

```
import re
from nltk.corpus import stopwords
stops=set(stopwords.words('english'))
txt= '''NLTK allows you to convert Text into
Lowercase and uppercase. Don't hesitate to ask
questions'''
wordList = re.sub("[^\w]", " ", txt).split()
[word for word in wordList if word not in stops]
```

Out[10]:

```
, 'NLTK']
, 'allows'
, 'convert'
, 'Text'
, 'Lowercase'
, 'uppercase'
, 'Don'
, 'hesitate'
, 'ask'
['questions']
```

:[11] In

```
## HOMEWORK
```

:[12] In

```
import nltk
```

:[19] In

```
Faisal = open(r'C:\Users\user\Desktop\Faisal.txt')
sen=Faisal.read()
sen
```

Out[19]:

```
It is a pleasant evening.", "Guests, who came from US arrived at the v'
'.enue", "Food was tasty
```

:[22] In

```
import re
from nltk.corpus import stopwords
s=set(stopwords.words('english'))
wordL=re.sub("[^\w]", " ",sen).split()
[word for word in wordL if word not in stops]
```

Out[22]:

```
, 'It']
, 'pleasant'
, 'evening'
, 'Guests'
, 'came'
, 'US'
, 'arrived'
, 'venue'
, 'Food'
['tasty']
```

:[ ] In