

##Assignment No.04##

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#Batch: B1

#Title: Generating the n gram model using nltk

```
from nltk import ngrams
```

```
from nltk.util import ngrams
```

#unigram model

n = 1

sentence = 'Natural language processing (NLP) is a field of computer science, artificial intelligence concerned with the interactions between computers and human'

```
unigrams = ngrams(sentence.split(), n)
```

```
for item in unigrams:
```

```
    print(item)
```

#bigram model

n = 2

sentence = 'Natural language processing (NLP) is a field of computer science, artificial intelligence concerned with the interactions between computers and human'

```
unigrams = ngrams(sentence.split(), n)
```

```
for item in unigrams:
```

```
    print(item)
```

#trigram model

n = 3

sentence = 'Natural language processing (NLP) is a field of computer science, artificial intelligence concerned with the interactions between computers and human'

```
unigrams = ngrams(sentence.split(), n)
```

```
for item in unigrams:
```

```
    print(item)
```

#using text file input

```
from nltk import ngrams
```

```
file = open("/home/exam/Desktop/NLP_LAB75/al.txt")
```

```
for i in file.readlines():
```

```
    cumulative = i
```

```
    sentences = i.split(".")
```

```
    counter = 0
```

```
for sentence in sentences:

    print("For sentence", counter + 1, ", trigrams are: ")

    trigrams = ngrams(sentence.split(" "), 3)

    for grams in trigrams:

        print(grams)

    counter += 1

    print()
```

####OUTPUT###

'''

#####Unigram Model#####

('Natural',)
('language',)
('processing',)
('(NLP)',)
('is',)
('a',)
('field',)
('of',)
('computer',)
('science,',)
('artificial',)
('intelligence',)
('concerned',)
('with',)
('the',)
('interactions',)
('between',)
('computers',)
('and',)
('human',)

Bigram Model

('Natural', 'language')

('language', 'processing')
('processing', '(NLP)')
('(NLP)', 'is')
('is', 'a')
('a', 'field')
('field', 'of')
('of', 'computer')
('computer', 'science,')
('science,', 'artificial')
('artificial', 'intelligence')
('intelligence', 'concerned')
('concerned', 'with')
('with', 'the')
('the', 'interactions')
('interactions', 'between')
('between', 'computers')
('computers', 'and')
('and', 'human')

Trigram Model

('Natural', 'language', 'processing')
('language', 'processing', '(NLP)')
('processing', '(NLP)', 'is')
('(NLP)', 'is', 'a')
('is', 'a', 'field')
('a', 'field', 'of')
('field', 'of', 'computer')
('of', 'computer', 'science,')
('computer', 'science,', 'artificial')
('science,', 'artificial', 'intelligence')
('artificial', 'intelligence', 'concerned')
('intelligence', 'concerned', 'with')
('concerned', 'with', 'the')
('with', 'the', 'interactions')

('the', 'interactions', 'between')

('interactions', 'between', 'computers')

('between', 'computers', 'and')

('computers', 'and', 'human')

'''