

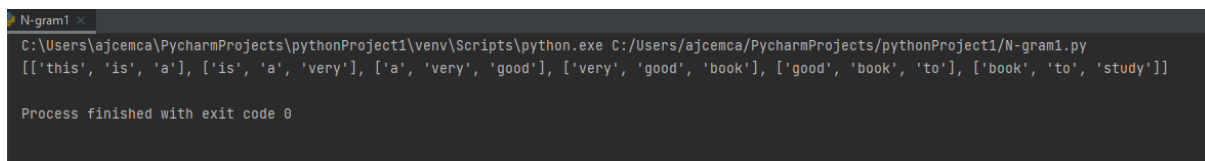
Program No:-18

Aim:python program for natural language processing-N-gram(without using inbuilt function)

Program Code

```
def generate_ngrams(text, WordsToCombine):  
    words = text.split()  
    output = []  
    for i in range(len(words) - WordsToCombine + 1):  
        output.append(words[i:i + WordsToCombine])  
    return output  
x=generate_ngrams(text='this is a very good book to study', WordsToCombine=3)  
print(x)
```

Output

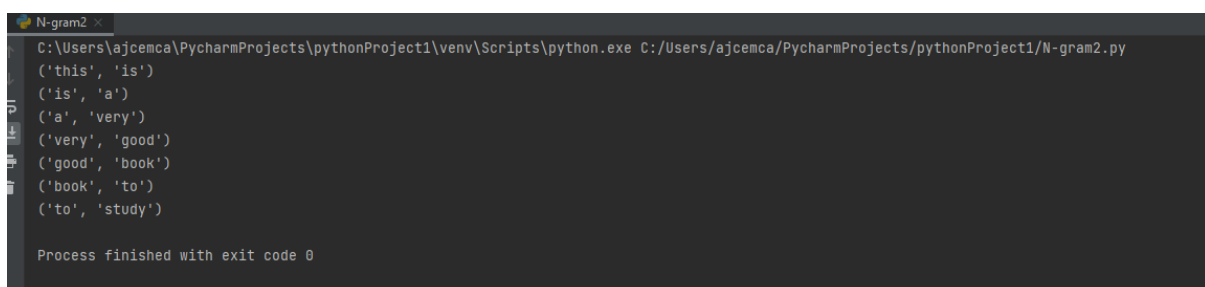


```
N-gram1 x  
C:\Users\ajcemca\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/ajcemca/PycharmProjects/pythonProject1/N-gram1.py  
[['this', 'is', 'a'], ['is', 'a', 'very'], ['a', 'very', 'good'], ['very', 'good', 'book'], ['good', 'book', 'to'], ['book', 'to', 'study']]  
  
Process finished with exit code 0
```

N-gram with inbuilt function

```
import nltk  
from nltk.util import ngrams  
sampleText = 'this is a very good book to study'  
NGRAMS = ngrams(sequence=nltk.word_tokenize(sampleText), n=2)  
for grams in NGRAMS:  
    print(grams)
```

Output



```
N-gram2 x  
C:\Users\ajcemca\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/ajcemca/PycharmProjects/pythonProject1/N-gram2.py  
(  
'this', 'is')  
(  
'is', 'a')  
(  
'a', 'very')  
(  
'very', 'good')  
(  
'good', 'book')  
(  
'book', 'to')  
(  
'to', 'study')  
)  
  
Process finished with exit code 0
```