

```
In [1]: import nltk
        from nltk.tokenize import sent_tokenize, word_tokenize
```

```
In [2]: sentence= ["the", "DT"), ("little", "JJ"), ("yellow", "JJ"), ("dog", "NN"), ("barked", "VBD"), ("at", "IN"), ("cat", "NN")]
        grammar="NP: {<DT>?<JJ>*<NN>}"
        #productions from CFG for NP and VP
        c=nltk.RegexpParser(grammar)
        result=c.parse(sentence)
        print(result)
```

```
(S
  (NP the/DT little/JJ yellow/JJ dog/NN)
  barked/VBD
  at/IN
  (NP the/DT cat/NN))
```

```
In [6]: import nltk
```

```
In [7]: sentence = [("a", "DT"), ("clever", "JJ"), ("fox", "NN"), ("was", "VBP"),
                    ("jumping", "VBP"), ("over", "IN"), ("the", "DT"), ("wall", "NN")]
```

```
In [18]: grammar = "NP:{<DT>?<JJ>*<NN>}"
         parser_chunking = nltk.RegexpParser(grammar)
         parser_chunking.parse(sentence)
         output = parser_chunking.parse(sentence)
         output.draw()
```

```
-----
TclError                                Traceback (most recent call last)
<ipython-input-18-7dec73c46613> in <module>
      3 parser_chunking.parse(sentence)
      4 output = parser_chunking.parse(sentence)
----> 5 output.draw()

/ext/anaconda2020.02/lib/python3.7/site-packages/nltk/tree.py in draw(self)
    752     from nltk.draw.tree import draw_trees
    753
--> 754     draw_trees(self)
    755
    756     def pretty_print(self, sentence=None, highlight=(), stream=None, **kwargs):

/ext/anaconda2020.02/lib/python3.7/site-packages/nltk/draw/tree.py in draw_trees(*trees)
   1006     :rtype: None
   1007     """
-> 1008     TreeView(*trees).mainloop()
   1009     return
   1010

/ext/anaconda2020.02/lib/python3.7/site-packages/nltk/draw/tree.py in __init__(self, *trees)
    857     self._trees = trees
    858
--> 859     self._top = Tk()
    860     self._top.title('NLTK')
    861     self._top.bind('<Control-x>', self.destroy)

/ext/anaconda2020.02/lib/python3.7/tkinter/__init__.py in __init__(self, screenName,
```

```

baseName, className, useTk, sync, use)
    2021         baseName = baseName + ext
    2022         interactive = 0
-> 2023         self.tk = _tkinter.create(screenName, baseName, className, interacti
ve, wantobjects, useTk, sync, use)
    2024         if useTk:
    2025             self._loadtk()

TclError: couldn't connect to display ":0"

```

```

In [16]: parser_chunking = nltk.RegexpParser(grammar)
         parser_chunking.parse(sentence)
         Output = parser_chunking.parse(sentence)
         output.draw()

```

```

-----
NameError                                Traceback (most recent call last)
<ipython-input-16-d1cea3217b6b> in <module>
      2 parser_chunking.parse(sentence)
      3 Output = parser_chunking.parse(sentence)
----> 4 output.draw()

NameError: name 'output' is not defined

```

```

In [15]: parser_chunking.parse(sentence)
         Output = parser_chunking.parse(sentence)
         output.draw()

```

```

-----
NameError                                Traceback (most recent call last)
<ipython-input-15-04489642806e> in <module>
      1 parser_chunking.parse(sentence)
      2 Output = parser_chunking.parse(sentence)
----> 3 output.draw()

NameError: name 'output' is not defined

```

```

In [14]: Output = parser_chunking.parse(sentence)
         output.draw()

```

```

-----
NameError                                Traceback (most recent call last)
<ipython-input-14-64b12c66878d> in <module>
      1 Output = parser_chunking.parse(sentence)
----> 2 output.draw()

NameError: name 'output' is not defined

```

```

In [12]: Output = parser_chunking.parse(sentence)

```

```

In [19]: Output.draw()

```

```

-----
TclError                                Traceback (most recent call last)
<ipython-input-19-468790ca62e6> in <module>
----> 1 Output.draw()

/ext/anaconda2020.02/lib/python3.7/site-packages/nltk/tree.py in draw(self)
    752         from nltk.draw.tree import draw_trees
    753
--> 754         draw_trees(self)

```

```

755
756     def pretty_print(self, sentence=None, highlight=(), stream=None, **kwargs):
/.../anaconda2020.02/lib/python3.7/site-packages/nltk/draw/tree.py in draw_trees(*trees)
1006         :rtype: None
1007         """
-> 1008     TreeView(*trees).mainloop()
1009     return
1010

/.../anaconda2020.02/lib/python3.7/site-packages/nltk/draw/tree.py in __init__(self, *trees)
857         self._trees = trees
858
--> 859         self._top = Tk()
860         self._top.title('NLTK')
861         self._top.bind('<Control-x>', self.destroy)

/.../anaconda2020.02/lib/python3.7/tkinter/__init__.py in __init__(self, screenName,
baseName, className, useTk, sync, use)
2021             baseName = baseName + ext
2022             interactive = 0
-> 2023         self.tk = _tkinter.create(screenName, baseName, className, interactive,
wantobjects, useTk, sync, use)
2024         if useTk:
2025             self._loadtk()

TclError: couldn't connect to display ":0"

```

In [0]: