

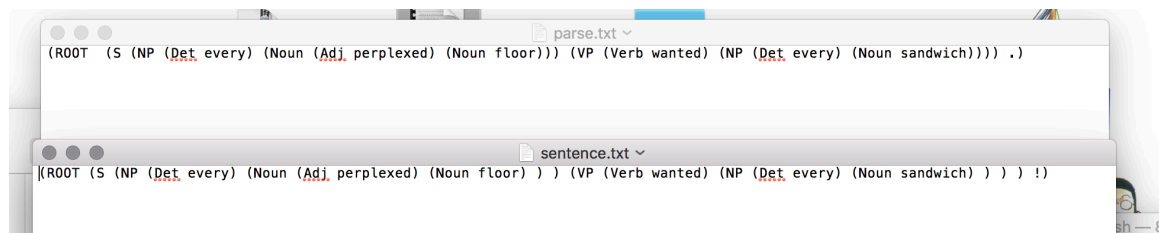
1. We could make the production frequency such as NP->NP PP larger. This kind of production shows that the LHS can produce the RHS that has same Non-terminal with LHS, such as NP could produce NP. This method can make longer sentences be generated because the NP can produce more NP PP to make tree larger.

And if RHS include more Non-terminals, the sentences will be longer.

2. Yes, same grammar means same rule, so sentences can be parsed by CYK following the same rule in same grammar

The tree in command line:

```
(ROOT (S (NP (Det every)
              (Noun (Adj perplexed)
                    (Noun floor)))
        (VP (Verb wanted)
            (NP (Det every)
                (Noun sandwich))))
!)
```



In this project, I use the stack to accomplish generator and use table(Arraylist<Arraylist<Cell>>) to finish parser.