**NLP Homework 3**

Due: Oct 20th (Sunday), 11:59 pm

In this problem, you need to develop the context-free grammar that can parse all the following sentences. You will use Python environment to test your grammar to make sure that it does the job and save your Python screenshot. **(45%)**

(a)“We had a nice party yesterday”

(b)“She came to visit me two days ago”

(c)“You may go now”

(d)“Their kids are not always naive”

Besides these four sentences, list **three more different sentences** that can be parsed by this grammar as well as the corresponding Python screenshot. Of the three sentences, can you generate one that does not make sense? Why can’t you have such a sentence based on your grammar? **(15%)**

Now, assuming that the above given four sentences are your mini-mini training corpus, you will write a probabilistic context-free grammar. You will use Python environments to test your grammar and save the Python screenshot. **(40%)**

**What to submit for Homework:**

Each student should submit a report in PDF format that includes the grammars, the Python screenshots, and the written explanations.