

Submit:

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Assignment 2:

Part 1 – Weights:

- a. The program generate so many long sentences because, there are rules ,in the grammar file, which build from themselves. Such as 'NP NP PP' and 'PP Prep NP'. Those rules could make infinite sentences and therefore there are many long sentences.
- b. Because there only one rule that allows it, all the rules have the same probability to be used, therefore this rule is not used many times compare to the others.
- c. For making the sentences shorter and the adjectives more frequent, we can increase the weight of the 'NP Det Noun', which cause the other rules of NP tree to be less used, so the sentence will not be so long and by using more the rule ' Noun Adj Noun' the sentences will include more adjectives.
- d. We can increase the weights of words that should be appear more the other.

Part 4 – Additional Linguistic Structures:

We chose to implement a, b phenomena:

- a. We split the nouns and the adjectives to words that get 'a' before, and to words that get 'an'. For example, '1 NN apple' converted to '1 NNAN apple' and '1 JJ lazy' converted to '1 JJA lazy'. We change and split each rule that have those terminals to fit the new terminals. For example, '1 NP NN' converted to '2 NP a NNA' and '2 NP an NNAN'.
- b. We add rule '1 ROOT WH SBase ?' that WH represents did , will, could, ext. and SBase represent a regular sentence that the verb is in his base condition such as eat, drink, swim ext.

Part 5 – Extra:

- We added IN 'in' from the sentence – 'the year in the picture'.
- We added EX 'there' and RB 'not' from the sentence – 'There Is a Reason Tech Isn't Safe'.
- We added ADVP 'back' from the sentence – 'I want my voice back'
- We added TO 'to' from the sentence – 'I wanted to go to school'
- We added IN 'for' from the sentence – ' Greta Thunberg apologizes for 'put leaders against the wall'
- We added 'S VP ' for the sentence – ' Do The Right Thing'
- We added IN 'at' from the sentence – 'actor dies at 86'