1. a) Discussing the question why does the program generate so many long sentences, we’ve come with the thought that the grammar rule “NP -> NP PP” is responsible for that because it’s a rule that increases the sentence for sure because it calls itself again plus calling another rule. It’s like a recursion, and it could be endless in here. The same way the rule “Noun -> Adj Noun” can cause that but there are more rules of Noun, thus it’s chance to be used is smaller that the rule of NP which has 50% chance to be used (as it one among 2 rules which have the same weight).

b) Discussing the question why do the generated sentences rarely have multiple adjectives before a noun, we’ve come up with the thought that there is only one rule responsible for adding adjectives: “Noun -> Adj Noun”, while there are 6 rules total for interpreting Noun (with identical weights), that’s why there is only 1/6 chance this rule would be picked to interpret Noun, and this chance is quite low.

c) We’ll discuss our solutions to the problems: The long sentences issue could be solved by increasing the weights of the other rules for NP, in our case it’s only one rule: “NP -> Det Noun”. By that we’ll reduce the chance for the “NP -> NP PP” rule to be picked.

The rare sentences with multiple adjectives before a noun could be solved by increasing the weight of the rule “Noun -> Adj Noun” and by that increasing the chance adjective would be added before a noun.