Csc485 A2 Report

**Testing Strategy**

**For 3.1**: Start with agreement between Determiner and Nouns, i.e. (“an elephant” is correct NP but not “a elephant”) . Then test variations with PP and Adj in NP, i.e (“cat with long soft handsome fur ate on boat” vs “ \*cat long soft with fur”) . Then focus on the simplest sentence structure: S -> NP VP, here VP is just intransitive verb i.e.(“I left” vs “ \*I brought”) . Subjective Noun and Objective Nouns is also tested i.e(“\*his ate”, “\*I brought he”) and tense of the verbs i.e.(“\*I eat” vs “the cat ate”)

**For 3.2**: Test all possible combinations of “passive”, “progressive”, “perfect” and “modal” i.e. (from “Nadia is reminded” to “the elephant would have been won”) then focus on the order of the auxiliaries, make sure the correct order is [Moda—Perfect—Progressive—Passive]. Then I tested intransitive verbs (“\*I had ate” ) and passivised transitive verbs i.e.(“the elephant would have been being won”) . Finally the Adv is added to test i.e. (“the cat was reminded slowly”, “the cat was slowly reminded”).

**For 3.3**: I mainly focus on the structure of VP for 3.3. Test different structures when VP contains intransitive verbs, transitive verbs, S, Preposition, conjunctions like “that, before, after”.

For transitive verbs: tested with Preposition i.e. (“Nadia brought a cloth for the cheese”, “Nadia reminded him of eating”) , tested with conjunctions (“I believed that Nadia left” vs “\*I left that Nadia ate”) since some verbs can not followed by “that”. Did the same test for “before, after”. i.e. (“Nadia arrived after I brought a cat” vs “\* I helped before he left”).

***Limitations***

**Overgen**: The disagreement of auxiliaries and subject i.e. (“the cat have been eaten”, “I has been eaten”, “the cat are leaving”) Then I see the disagreement between verbs and Prepositions i.e. (“Nadia reminded him on cat”, “I wanted him onto eating a cat”). Moreover, there are problems between verbs and prepositions in the body of VP i.e. (“Nadia reminded him of eat cat”, “I wanted him to eating a cat”) And cases where verbs can not be followed by Prepositions i.e. (“she saw to me”, “I fondle of her”)

**Undergen**: The current parser does not deal with present tense i.e. (“\*the cat leave”). And two Advs could not be together i.e. (“\*I helped an elephant really slowly”), in some cases where Adj and Adv appear together will also cause problems i.e.(“\*I saw a really handsome cat”)

Moreover, I observed that the auxiliary system does not apply on some transitive verbs i.e. (“\*I have been eating cat”) The parser currently can not parse sentences which contains auxiliary and PP i.e. (“\*I have been eating on the boat”). Another problem is that passivised transitive verbs can not be followed by conjunctions + S i.e. (“\*I was told that I ate a cat’). And many issues are encountered when dealing with Prepositions i.e. (“\*Nadia ate before leaving”). Another limitation is that the word “that” can only be followed by a sentence in this parser i.e. (“I saw a cat that jumped”).