

NLP Ex2 – Answers

Section a(adding a,an):

We added a SectionA gen file that show examples of sentences with our additions.

Modifications:(we added some rules)

the simple rules add an/a to their proper nouns:

NounExtended→ ArticleA Noun (e.g :a president, ArticleA='a')

NounExtended→ ArticleAN ANnoun (e.g :an apple,
ArticleAN='an',ANnoun='apple/elf')

we also extended Noun and ANnoun:

Noun→ JJ ANnoun (means we can add adjective to the special nouns like: "lazy apple")

ANnoun→ ANjj ANnoun (we can add special adjectives to the ANnoun e.g: "extraordinary apple" where ANjj= 'extraordinary/ordinary/ambivalent')

now we can create sentences like "a beautiful apple"(using ArticleA and the first extend of noun) or "an ambivalent apple"

we also added

ANnoun ->ANjj Noun (for adding the new adjectives for regular nouns also)

then finally we added:

JJ Adv JJ

ANjj ANadv ANjj

to add the possibility to add a adverb before the adjectives.

Section b(adding Yes/No Questions):

We added Yes-No Question section in the grammar file.

we supported questions that start with "did", "will" and "is".

I looked over the internet for the form of simple question in past, present and future.

for past tense questions I did 2 option:

1) did NP InVerbOne

2) did NP TransVerbOne NP

where the first option would look like: "did sally run ?" and **InVerbOne** means Intransitive verb so we don't put NP after the verb.

the second option contains transitive verb (**TransVerbOne**) so after the verb we put NP and this form could create the question from the example: "did Sally/**NP** eat/**TransVerbOne** a sandwich/**NP** ?"

for future tense we did the same 2 forms like the past tense: (so I won't elaborate)

1) will NP InVerbOne

2) will NP TransVerbOne NP

for present tense we created the next forms:

1) is NP VerbPS NP

2) is NP VerbPTE

3) is NP JJ

the first form composed of NP and then a verb that ends in "ing" and another NP, like: "is Sally kissing a pickle ?" .

the second form composed of NP and then a verb in 3rd person like: "is Sally perplexed?" .

the third form composed of NP and JJ so the question would be like: "is sally lazy ?" .