AYDIN ADNAN MENDERES ÜNİVERSİTESİ

1992

NATURAL LANGUAGE PROCESSING

2020/21 SPRING

FINAL HOMEWORK

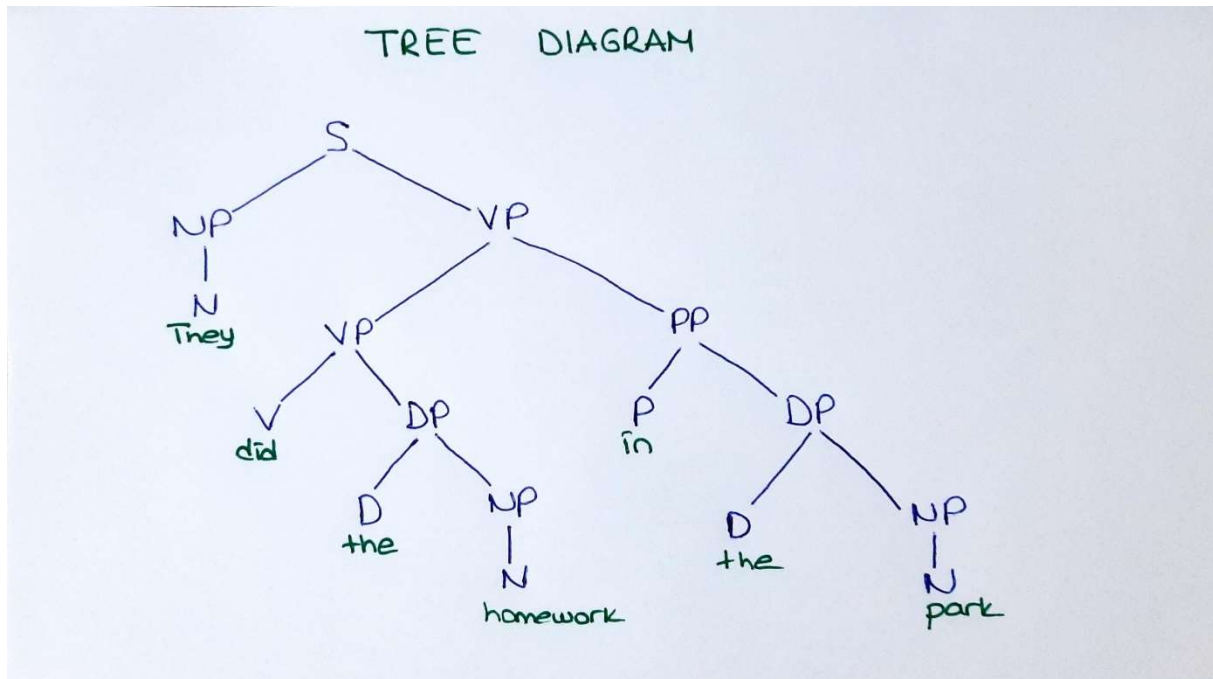Name – Surname

Betül Berna Soylu

Number

171805019

Class

CSE426

Question – 1) Construct an English sentence for the generation of which each of the following phrase structure rules will have to be used at least once ?

➔ They did the homework in the park.

Question – 2) Draw the tree diagram that represents the syntactic analysis of your sentence in accordance with the given rules ?

TREE DIAGRAM

Question – 3) Write a Prolog program (with a bottom-up parser) that can syntactically analyze and return a positive answer when your sentence is given as input. Show that your program does what it is supposed to do with an appropriate query.

- **Output of Bottom-Up Parser**

```
4 ?- consult('bottomup_parse1').

5 ?- sr_parse([], [they, did , the, homework, in, the, park]).
```

- **Output of Semantics**

```
4 ?- consult(semantic).

5 ?- sr_parse([], [they, did, homework]).
did(t,h)
```