

**CS671: Introduction to NLP**  
**Assignment #3: Syntax: CYK and Earley's algorithms**

Due on: 26-10-2016, 23.59  
MM: 300

19-10-2016

1. In this assignment you have to implement the CYK and Earley algorithms. Use the grammar  $\mathcal{L}_1$  described in Figure 13.8 of SLP2 for testing.

Your output for both algorithms should be a nested list that is equivalent to the tree representing the parse.

Carefully choose the data structures that you use in both cases and comment on them in your code.

The TAs will test your parsers on sample test sentences that they have created using the same grammar.

Note that in this assignment you will not be using existing libraries. Instead you have to write your own code for the CYK and Earley algorithms

[150+150=300]