# Compilers <br> Assignment 2: LR Parsing Deadline: 2011-12-22, 2:30 PM 

## 2011-12-3

## 1- The Assignment: (based on Appel Exercise 3.12)

Starting with this grammar:

$$
\begin{array}{ll}
\mathrm{p}_{0} & S^{\prime} \rightarrow E \\
\mathrm{p}_{1} & E \rightarrow \mathrm{id} \\
\mathrm{p}_{2} & E \rightarrow \mathrm{id}(E) \\
\mathrm{p}_{3} & E \rightarrow E+\mathrm{id}
\end{array}
$$

- Construct the LR(0) DFA, the FOLLOW set for $E$ and the SLR action/goto tables.
- Is this an $\operatorname{LR}(0)$ grammar? Prove your answer.
- Using the SLR tables, show the steps (shifts, reductions, accept) of an LR parser parsing:

$$
i d(i d+i d)
$$

## 2- The Report

The report should be printed from a computer (hand-written reports can be difficult to read), and should include a front page with your name, email address, the name of the course, and the number of the assignment. The assignment can be solved either individually or in groups (up to 2 students/group).

You can leave the report in my room (room number 5, besides Mr. Salar's room, ground floor), or put it in my mail box at the Secretary's room (Roshna and Nergiz's room).

PLEASE, do NOT send it by email!

