

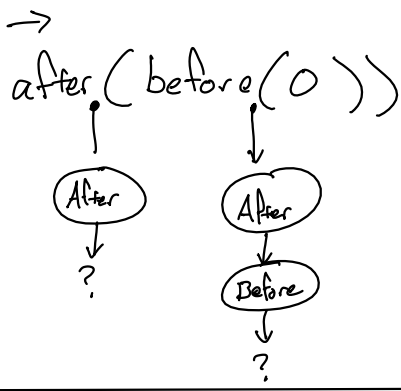
LL Parsing

order in which tokens are consumed (left-to-right)

order in which tree nodes are built

LT Parsing

top-down



RR Parsing ≡ LL Parsing

LR Parsing

bottom-up parsers

Pushdown Automaton (PDA)

is roughly a graph with edges annotated by stack operations and input operations

$\langle \text{expr} \rangle ::= \langle \text{expr} \rangle + \langle \text{expr} \rangle$
 $|\langle \text{expr} \rangle * \langle \text{expr} \rangle$

! ~~4~~

btw, + < *

LR(1) parser

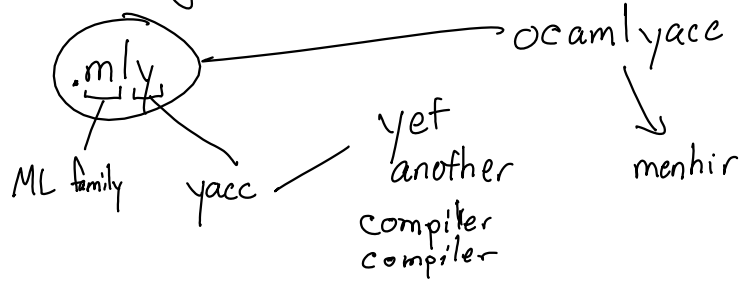
Input	1+2*3	+2*3	+2*3	2*3	*3	*3	3	EOF	EOF	EOF	EOF
Stack		1	1	1	1	1	1	1	1	1	1
			Shift	+	2	+	2	*	3	+	+
										Reduce	

shift? ✓ b/c
reduce? * > +

precedence of \cup σ^* determined by shift or reduce

associativity determined by > or ≥

Parser generator



"domain-specific language" DSL

