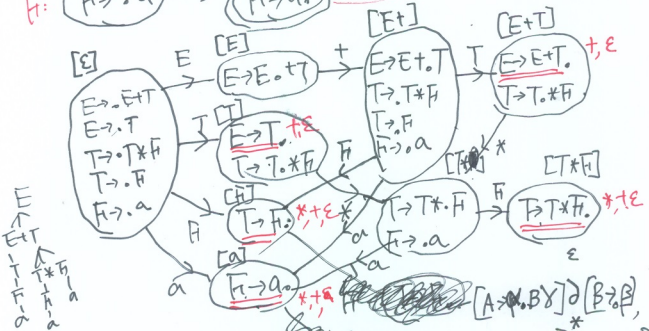
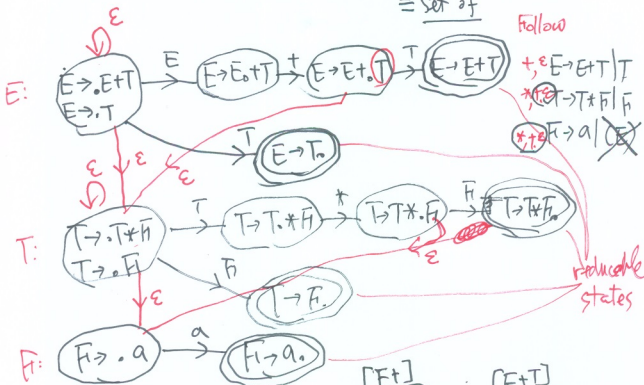


6/5 (木) 7/24/0 LR(k) state of LR(k) items

≡ set of

Follow



- LR(k) state
- ≡ set of LR(k) items
- ≡ set of valid stack strings
- ≡ set of viable prefixes

~~LR(0)~~ but SLR(1)

Def. LR(0) item.

Let $A \rightarrow \alpha\beta \in P$ $[A \rightarrow \alpha\beta]$ is an LR(0) item,

Def. Canonical collection of set of LR(0) items: C_0
 (= set) (= LR(0) state)

Def.

Def SLR(k) reduce $[A \rightarrow \alpha.]$ on Follow(A)

Simple $LR(0) \subseteq SLR(k) \subseteq LALR(k) \subseteq LR(k)$

Def $[A \rightarrow \alpha.B\beta] \supseteq [B \rightarrow \beta]$

\supseteq^*



Def LR(k) item

$[A \rightarrow \alpha.\beta, u]$ is an

if $A \rightarrow \alpha\beta \in P, u \in \Sigma$

$\beta \in \text{First}_k(\alpha u)$

Lookahead \subseteq Follow(A)

[Def] $[A \rightarrow \alpha.B\gamma, u] \supseteq_k [B \rightarrow \beta, v]$, if $B \rightarrow \beta \in P$
 $v \in \text{First}_k(\beta) \oplus_k u$

Let $G = (N, \Sigma, P, S)$. We def. augmented grammar of G , as G' .

$G' = (N \cup \{S'\}, \Sigma, P \cup \{S' \rightarrow S\}, S')$
 $S' \notin N$.

Canonical Coll. of LR(k) states.

$[S' \rightarrow S, \epsilon]$ $\supseteq^* \delta(x_1) \supseteq^* \delta(x_2) \dots \supseteq^* \delta(x_n) \supseteq^*$
 $x_i \in N \cup \Sigma$.