

5/25(木) 62 LR(k) items

Let $A \rightarrow \alpha\beta \in P$. Then $[A \rightarrow \alpha \cdot \beta, x]$ is a k-item

if $x \in \Sigma^{\leq k}$.
 $S \xRightarrow{*} \delta A z \xRightarrow{*} \delta \alpha \beta z$
 Core: α , lookahead: β , LR(k): $z \in \Sigma^{\leq k}$, LL(k): $z \in \Sigma^{\leq k}$

if $x = \epsilon$ Then $[A \rightarrow \alpha \cdot \beta, \epsilon] = [A \rightarrow \alpha \cdot \beta] \#^k \cdot \epsilon (\Sigma \cup \#)^k$

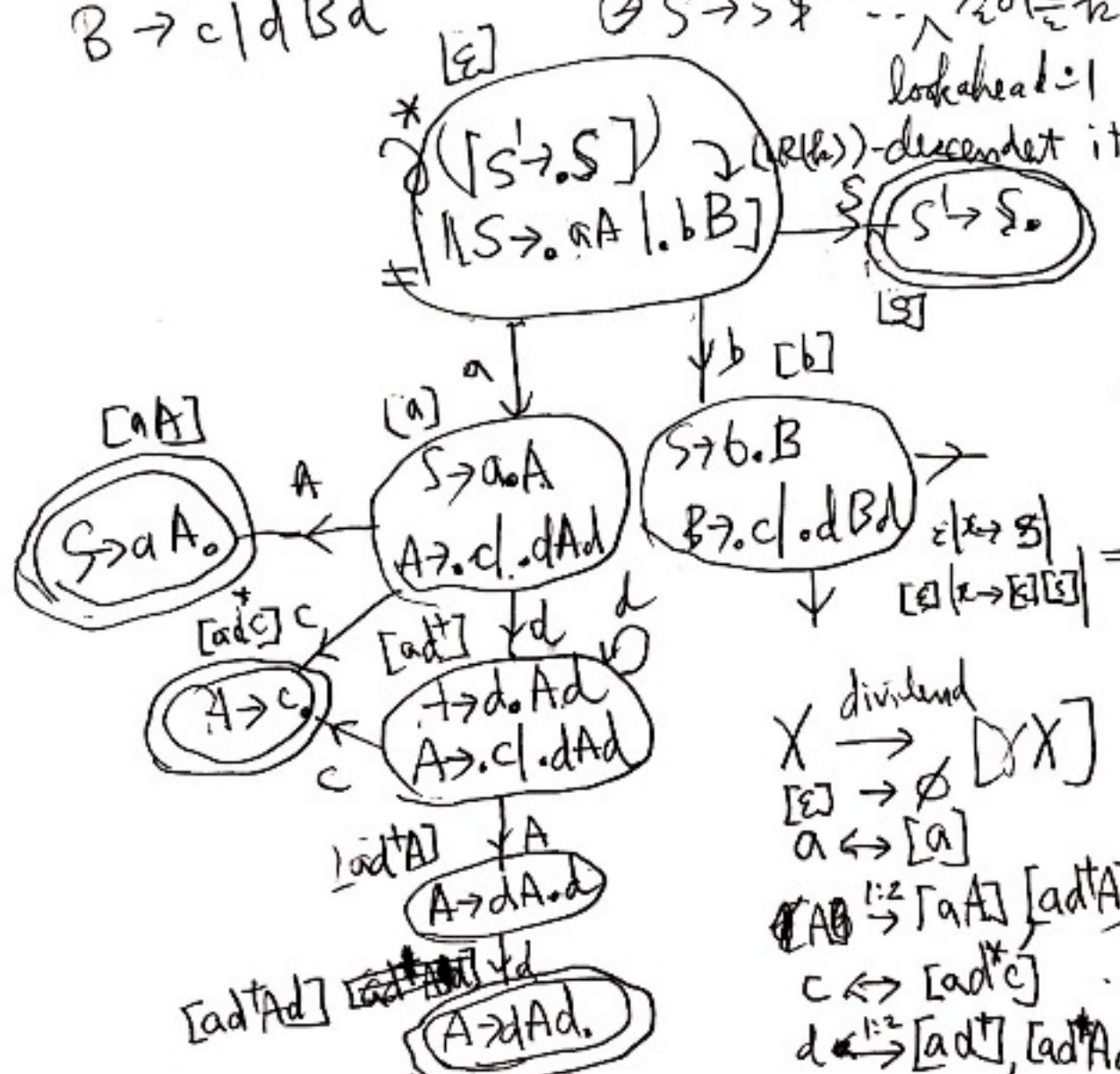
$y \in \text{Follow}(\delta(A)) \subseteq \text{Follow}(A)$ no lookahead

LR(k) or LR(k) $\xrightarrow{\text{dynamic follow(A)}}$ SLR(k) $\xrightarrow{\text{static follow(A)}}$ LR(0)

Ex) $S' \rightarrow S$
 $S \rightarrow aA \mid bB$
 $A \rightarrow c \mid dAd$
 $B \rightarrow c \mid dBd$

augmented rule ($S' \rightarrow S \#^k$)
 ① S' of production rule of RHS of $\#^k$

② $S' \rightarrow \#^k \dots$ (X)



F.A. over $\Sigma \cup \#$
 CFM (Characteristic F.S. Machine)

set of LR(0) states
 = a set of LR(0) items
 $X \xrightarrow{\text{dividend}} [X]$
 $\epsilon \rightarrow \emptyset$
 $a \leftrightarrow [a]$
 $[aA] \xrightarrow{c} [ad^*c]$
 $[ad^*A] \xrightarrow{d} [ad^*Ad]$
 $[ad^*Ad] \xrightarrow{d} [ad^*Ad \cdot]$
 core lookahead