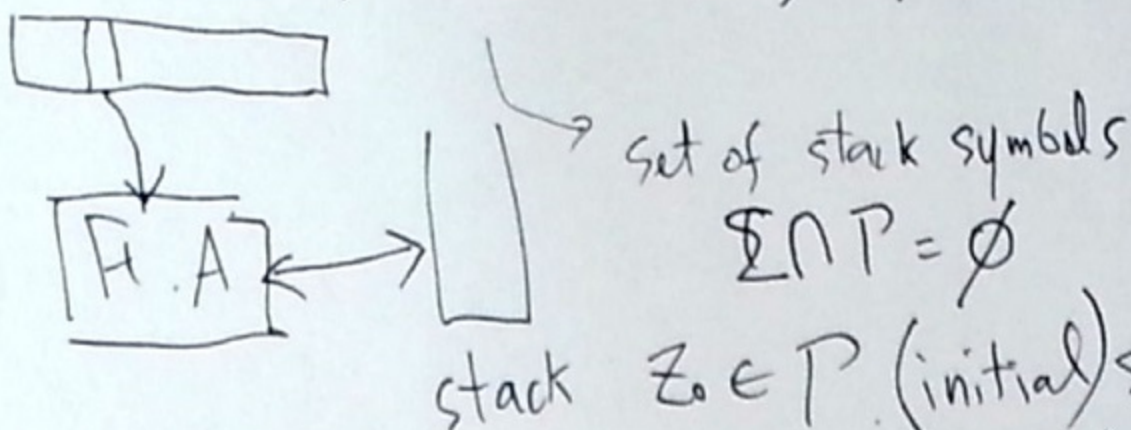


10/4 (wk) PDA 2. 제 15강

PDA $P = (Q, \Sigma, \Gamma, \delta, q_0, z_0, F)$ FA $= (Q, \Sigma, \delta, q_0, F)$



$$\Sigma \cap \Gamma = \emptyset$$

$z_0 \in \Gamma$ (initial) stack bottom marker

$$\delta: Q \times (\Sigma \cup \{\epsilon\}) \times \Gamma \rightarrow \underline{Q} \times \Gamma^*$$

Configuration (Instantaneous Description) of PDA

$$Q \times \Sigma^* \times \Gamma^* \Rightarrow (q, \alpha, \alpha)$$

$$L(P) = \{ \alpha \in \Sigma^* \mid (q_0, \alpha, z_0) \xrightarrow{*} (f, \epsilon, \alpha(z_0)) \}$$

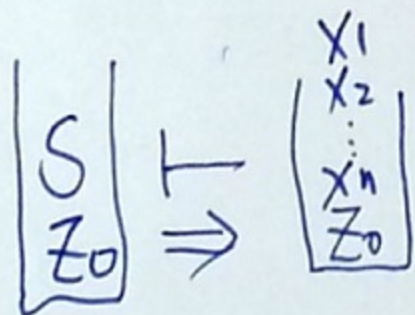
final state

$$N(P) = \{ \alpha \in \Sigma^* \mid (q_0, \alpha, z_0) \xrightarrow{*} (q, \epsilon, \epsilon) \}$$

null stack

Thm 6.9, 6.11 $L(P) = N(P)$

Thm 6.13 $CFG \rightarrow PDA$. ex) $P \rightarrow \alpha P \alpha \mid P \mid \epsilon$



$$S \rightarrow X_1 X_2 \dots X_n$$

$$S \rightarrow Y_1 Y_2 \dots Y_k$$

LL(k)

Left-to-right scan

with Leftmost derivations

seeing k-lookahead symbols

LR(k)

Left-to-right scan

with Rightmost derivations in reversed order

seeing k-lookahead symbols