Acceptance by PDA

There are two different ways to define PDA acceptability:

Acceptance by Final state:

Let $A = (Q, \Sigma, \Gamma, \delta, q_0, Z_0, F)$ be a pda. The set accepted by pda by final state is defined by

$$T(A) = \{w \in \Sigma^* | (q_0, w, Z_0) \overset{*}{\vdash} (q_f, \Lambda, \alpha) \text{ for some } q_f \in F \text{ and } \alpha \in \Gamma^*\}$$

Acceptance by Empty Stack :

Let $A = (Q, \Sigma, \Gamma, \delta, q_0, Z_0, F)$ be a pda. The set $N(A)$ accepted by null store (or empty store) is defined by

$$N(A) = \{w \in \Sigma^* | (q_0, w, Z_0) \overset{*}{\vdash} (q, \Lambda, \Lambda) \text{ for some } q \in Q\}$$

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