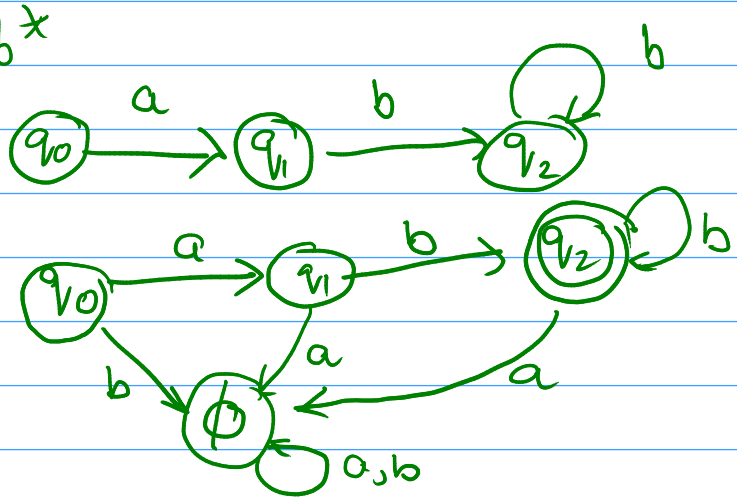
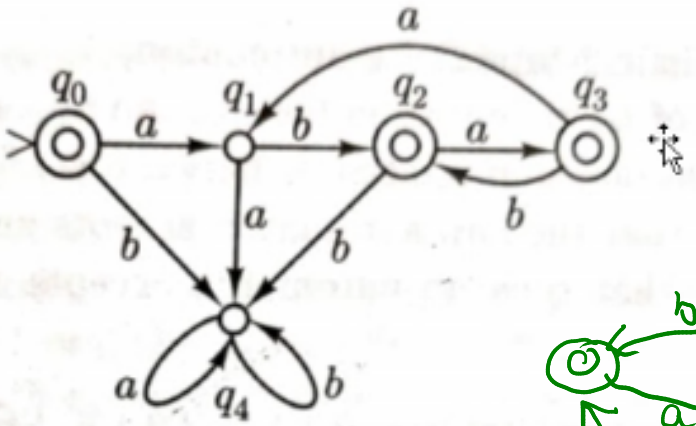
abb^*

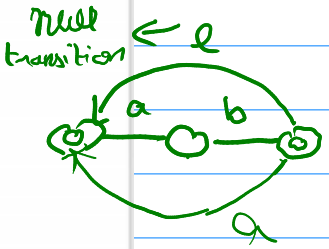


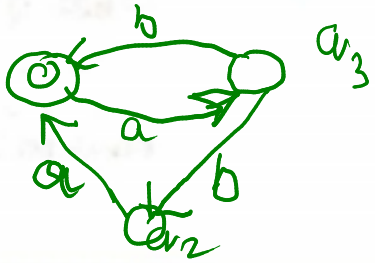
innovate achieve lead

A Deterministic Finite Automaton (DFA) (ab U aba)*



Empty
Ab
Aba
Abab
Ababa
Abaab
abaaba





Prof.R.Gururaj CSF351 Theory of Computation BITS Pilani, Hyderabad Campus

DFA = $M = (K, \Sigma, \delta, s, F)$ δ $K \times \Sigma \times K$

$(K \times \Sigma) \to K$

NDFA = $M(K, \Sigma, \Delta, s, F)$

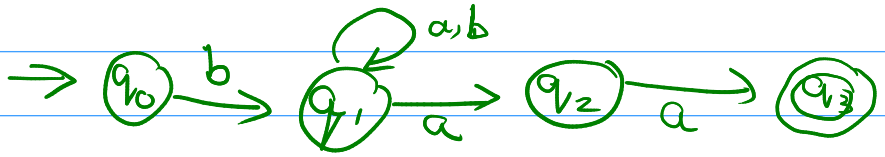
$\Delta : K \times (\Sigma \cup \{\phi\}) \to K$

Not realistic model for computers

Simply notation generalization, they simplify the model

$\Sigma = \{a, b\}$

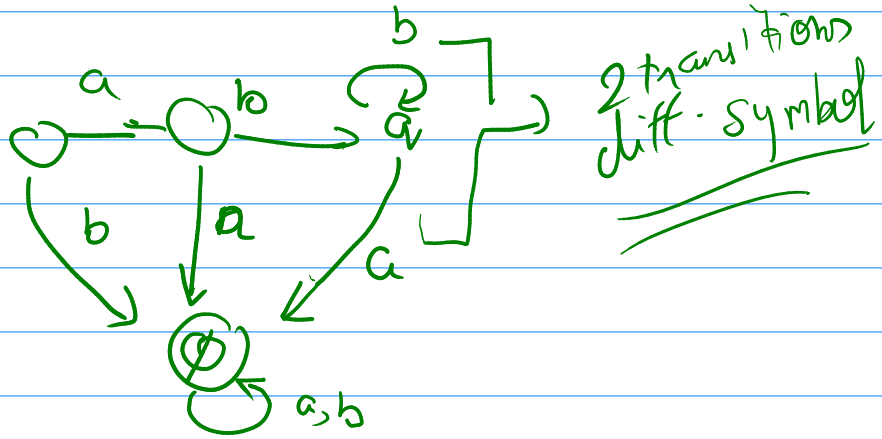
$L = \{ bwaa \mid w \in \{a, b\}^* \}$



NDFA

$q_1 \to q_1$ or $q_1 \to q_2$

abb^*



2 transitions diff. symbol