Uniqueness of Minimal DFAs

CS273
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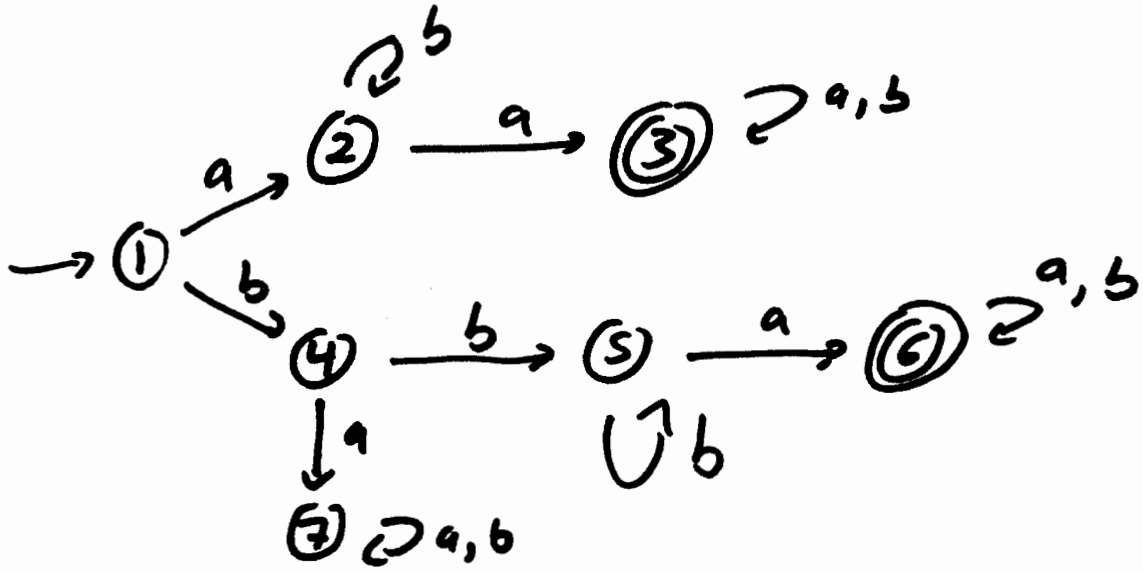
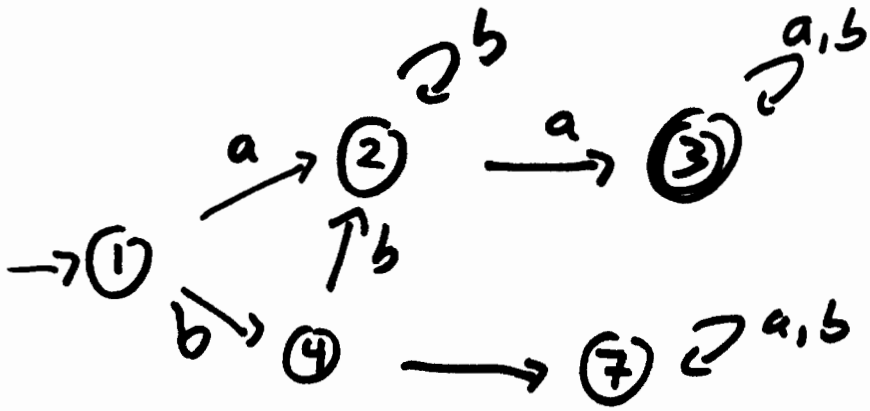


$$L_q = \{ w : q \xrightarrow{w} q_F,\ q_F \in F \}$$

$L_3 = L_6 = (a+b)^*$

$L_2 = L_5 = b^*a(a+b)^*$

$L_7 = \emptyset$



$L = (a + bb)\, b^* a\, (a+b)^*$

$S_L(x) = \{ w : xw \in L \}$

x	$S_L(x)$
ε	$(a+bb)\, b^* a\, (a+b)^*$
a	$b^* a\, (a+b)^*$
b	$b\, b^* a\, (a+b)^*$
ab, bb abb, bbb	$b^* a\, (a+b)^*$
$aba, bbba$	$(a+b)^*$
ba	$\emptyset$

only 5 possibilities for $S_L(x)$

$\Rightarrow$ 5 states in minimal DFA