

~~GNFA~~

~~DFA minimize~~

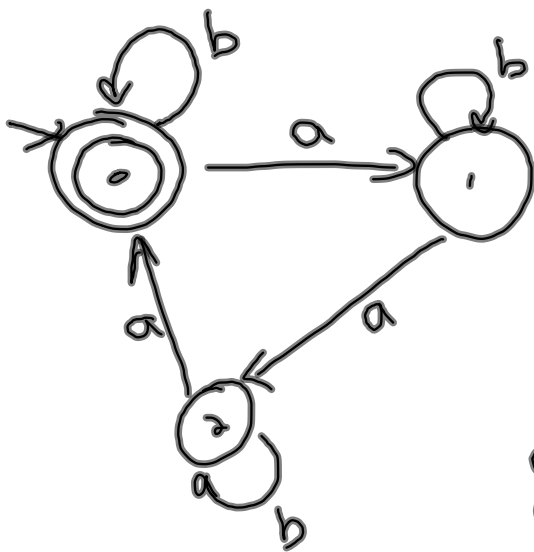
L is
non-regular

suppose regular

$L \cup R = L_2$
↑
 R is known reg.
↑
known not reg.

Formal Def:

$$M = (Q, \Sigma, \delta, q_0, F)$$



$$Q = \{0, 1, 2\}$$

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

$$q_0 = 0$$

$$F = \{0\}$$

$$\delta: Q \times \Sigma \rightarrow Q$$

states

δ	input	
	a	b
0	1	0
1	0	1

$$\delta(q, i) = \begin{cases} q & \text{if } i = b \\ (q+1) \bmod 3 & \text{if } i = a \end{cases}$$

DFA : $\cup, \cap, \bar{}$

NFA : $\cup, \circ, \bar{}, *$

$$a^+ = aa^*$$