

Automatas finitos No Deterministas

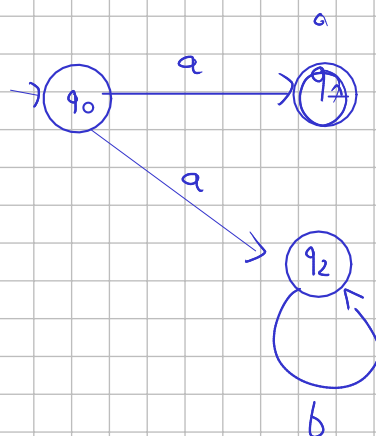
$$\mathcal{Q} = \{Q_0, Q_1, \dots, Q_n\}$$

Qo

$$T = \{Q_i, Q_j, Q_k\}$$

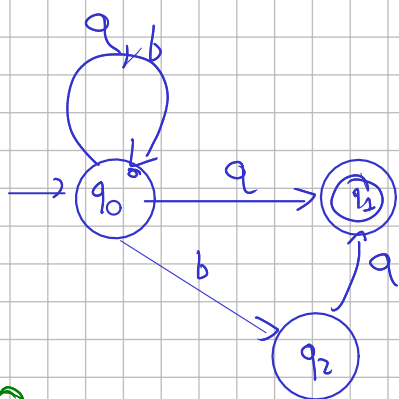
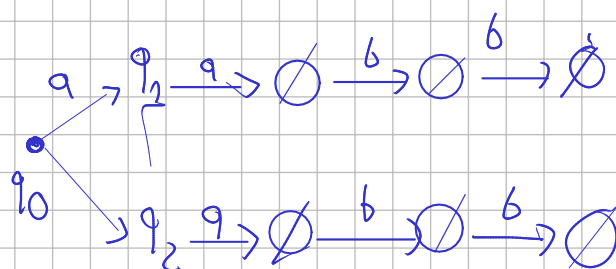
$$\mathbb{R} = \phi_0, x \rightarrow \{\phi_i\}$$

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



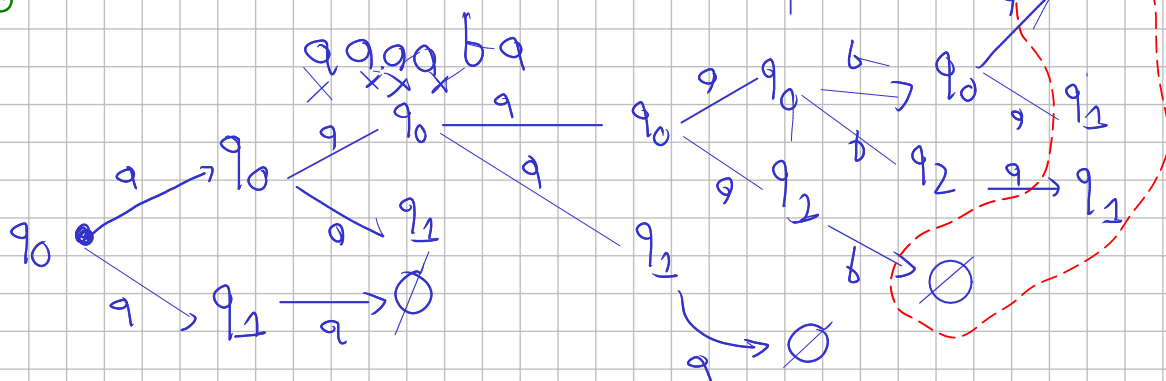
q_i	a	b
q_0	$\{q_1, q_2\}$	\emptyset
q_1	\emptyset	\emptyset
q_2	\emptyset	q_2

aa bb



q_i	a	b
q_0	$\{q_0, q_2\}$	q_2
q_1	\emptyset	\emptyset
q_2	q_2	\emptyset

2



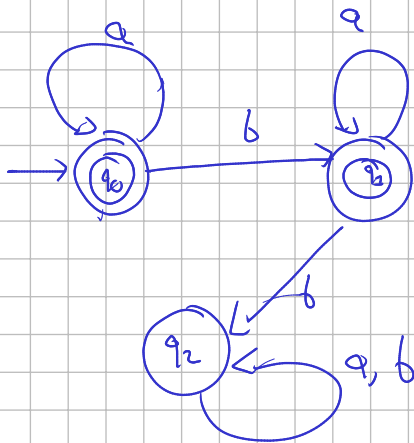
$P(A)$

$$A = \{1, 2, 3\}$$

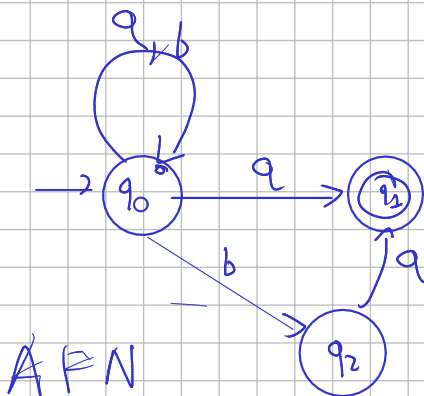
$$P(A) = \{ \emptyset, \{1\}, \{2\}, \{3\}, \{1, 2\}, \{1, 3\}, \{2, 3\}, \{1, 2, 3\} \}$$



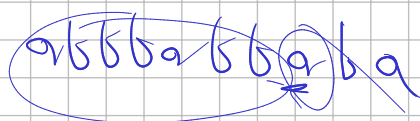
$$a^* \cup b a^*$$



$$AFN \longrightarrow AFD$$



AFN



$$\Delta(q_0, a) = \{q_0, q_1\}$$

$$\Delta(q_0, b) = \{q_0, q_2\}$$

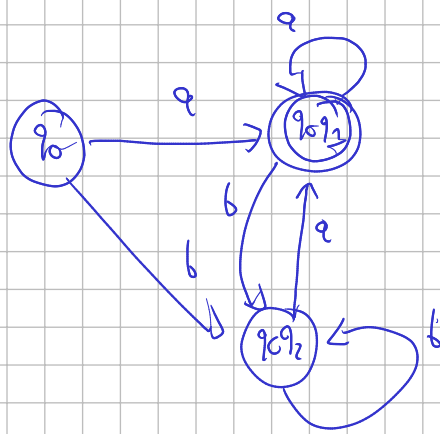
$$\Delta(\{q_0, q_1\}, a) = \{q_0, q_1\}$$

$$\Delta(\{q_0, q_2\}, b) = \{q_0, q_2\}$$

$$\Delta(\{q_0, q_2\}, a) = \{q_0, q_1\}$$

$$\Delta(\{q_0, q_2\}, b) = \{q_0, q_2\}$$

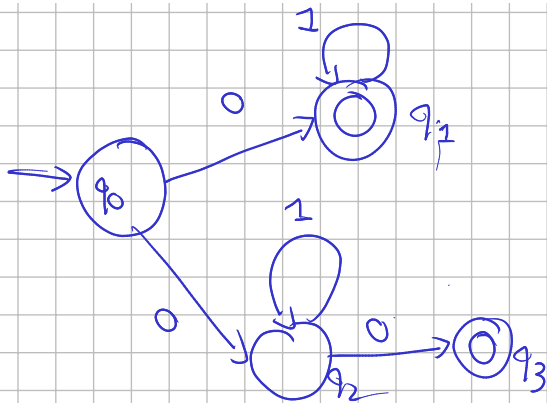
AFD



8. Obtener la AFND para cada lenguaje:

(a) Expresión regular $L = 01^* \cup 01^*0$ sobre $\Sigma = \{0, 1\}$.

X(b) Conjunto de cadenas que contienen dos ceros consecutivos sobre $\Sigma = \{0, 1\}$.



$$\Delta(q_0, 0) = \{q_1, q_2\}$$

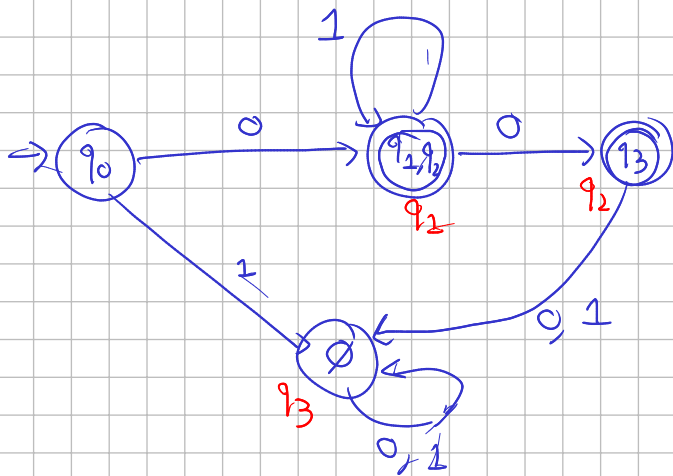
$$\Delta(q_0, 1) = \emptyset$$

$$\Delta(\{q_1, q_2\}, 0) = \{q_3\}$$

$$\Delta(\{q_1, q_2\}, 1) = \{q_1, q_2\}$$

$$\Delta(q_3, 0) = \emptyset$$

$$\Delta(q_3, 1) = \emptyset$$



0

011

01111

00

011110