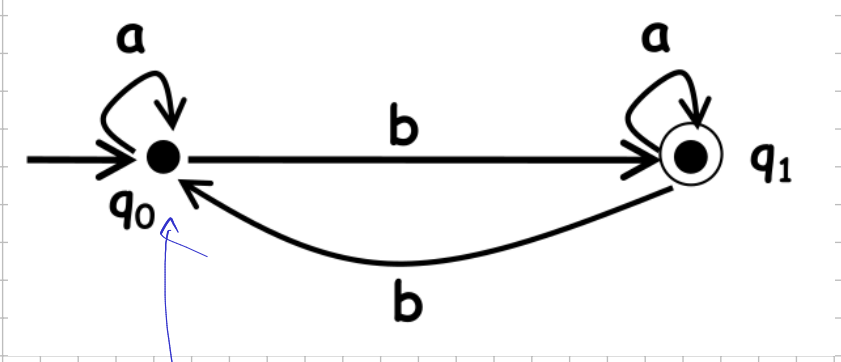


$X_0 = aX_0 \cup bX_1$

$X_1 = aX_1 \cup (bX_0 \cup \epsilon)$

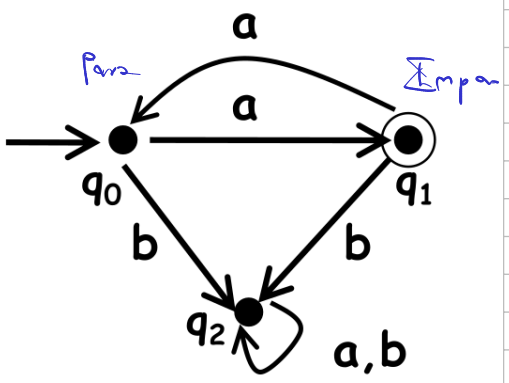
$X_1 = a^*(bX_0 \cup \epsilon)$

$X_1 = a^*bX_0 \cup a^*$

$X_0 = aX_0 \cup ba^*bX_0 \cup ba^*$

$X_0 = (a \cup ba^*b)X_0 \cup ba^*$

$X_0 = (a \cup ba^*b)^* ba^*$



$X_0 = aX_1 \cup bX_2$

$X_1 = aX_0 \cup bX_2 \cup \epsilon$

$X_2 = (a \cup b)X_2 \cup \emptyset$

$X_2 = (a \cup b)^* \emptyset$

$\boxed{X_2 = \emptyset}$

$X_0 = aX_1 \cup \emptyset$

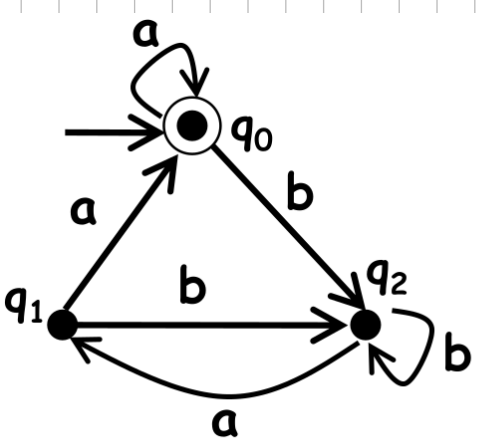
$X_0 = aX_1$

$X_1 = aX_0 \cup \epsilon$

$\boxed{X_0 = a^2X_0 \cup a}$

$X_0 = (a^2)^*a$

$\{ a, aaa, aaaaa$



$$\begin{cases} X_0 = aX_0 \cup bX_2 \cup \in \\ X_1 = aX_0 \cup bX_2 \\ X_2 = bX_2 \cup aX_1 \end{cases}$$

$$X_2 = b^* a X_1$$

$$X_1 = aX_0 \cup bb^* aX_1$$

$$X_1 = (bb^* a)^* aX_0$$

$$X_0 = aX_0 \cup bX_2 \cup \in$$

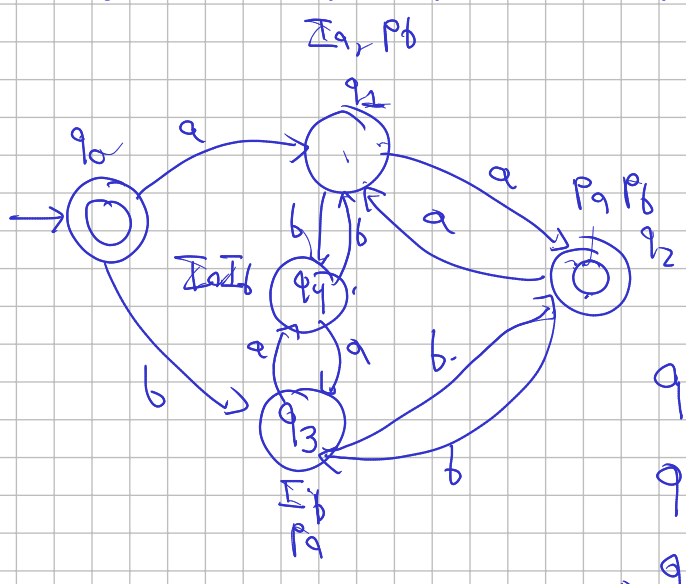
$$X_0 = aX_0 \cup bb^* aX_1 \cup \in$$

$$X_0 = aX_0 \cup bb^* a(bb^* a)^* aX_0 \cup \in$$

$$X_0 = (a \cup bb^* a(bb^* a)^* a)^*$$

$$X_0 = (a \cup b^+ a(b^+ a)^* a)^*$$

Construya un automa que acepte un número par de a y unnúmero de par b (0par)



aabb

aaaabbaa

$$q_0 = aq_1 \cup bq_3 \cup \in$$

$$q_2 = aq_2 \cup bq_4$$

$$\rightarrow q_2 = aq_1 \cup bq_3 \cup \in$$

$$\rightarrow q_3 = bq_2 \cup aq_4$$

$$q_4 = aq_3 \cup bq_1$$

$$q_3 = bq_2 \cup aaq_3 \cup abq_1$$

$$\rightarrow q_3 = (aa)^*(bq_2 \cup abq_1) = (aa)^* bq_2 \cup (aa)^* abq_1$$

$$q_2 = aq_1 \cup b(aa)^* bq_2 \cup b(aa)^* abq_1 \cup \in$$

$$q_2 = (b(aa)^* b)^* (aq_1 \cup b(aa)^* abq_1 \cup \in)$$

$$q_1 = a(b(aa)^* b)^* (aq_1 \cup b(aa)^* abq_1 \cup \in) \cup baq_3 \cup bbq_1$$

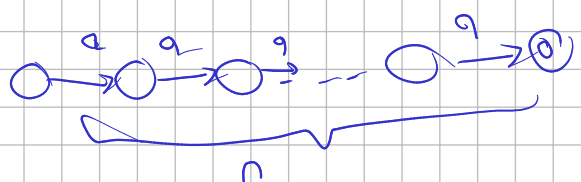
$$q_1 = a(b(aa)^* b)^* (aq_1 \cup b(aa)^* abq_1 \cup \in) \cup ba((aa)^* bq_2 \cup (aa)^* abq_1) \cup bbq_1$$

$$q_1 = a(b(aa)^* b)(aq_1 \cup b(aa)^* abq_1 \cup \in) \cup a((aa)^* b_{(b(aa)^* b)^*(aq_1 \cup b(aa)^* abq_1 \cup \in)} \cup (aa)^* abq_1) \cup bbq_1$$

$$q_1 = (a(b(aa)^* b(a \cup b(aa)^* ab) \_\_\_)^* \in$$

$$q_0 = aq_1 \cup bq_3 \cup \in$$

$a a^m a \quad m \geq 1$



$a a^{n-2} a$ } Size $= n$

$a \; a \; a^{n-2} a$

$\omega \quad v \quad x$

$n = ctr$

$a \in a^{n-2} a$ = Size $= n$

$a a a^{n-2} a$ = Size $n+1$

$a a^2 a^{n-2} a$ = $n+2$

$a^n b^n$

$\in a^n b^n \longrightarrow \in b^n$ ✗ $\quad v=0$

$\in a^{2n} b^n$ ✗ $\quad v=2$

$a^n \; b^n \; \in$ $\quad a^n \in$ $\quad v=0$

$a^n b^{2n}$ $\quad v=2$ ✗

$\in \; a \; a^{n-1} b^n$

$v=0$

$a^{n-1} b^n$

$a^2 a^{n-1} b^n$

$a^{n+1} b^n$ } $v=2$

$a^n b^m \quad n \geq 1$

$a^n \; b^s \; b^r \qquad s + r = n$

$a^n b^r \qquad r = A$

$a^n b^{2s} b^r \qquad 2s + r = n$

var a;
var a = S;

aaabbbcccc

aS
aaS
aaaS
aaabB
aaabbB
aaabbcC
aaabbccC
aaabbcccC
aaabbccccC
aaabbcccc