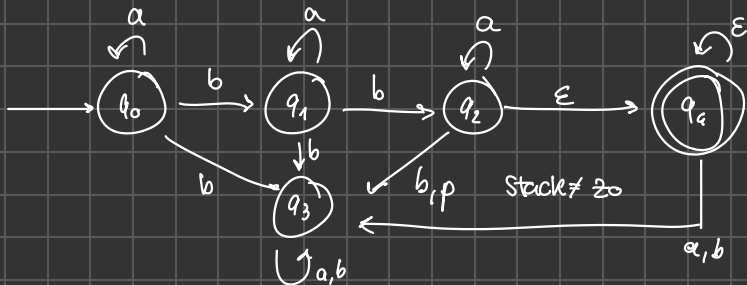


$$\Sigma = \{a, b\}$$

$$L_2 = \{a^n b a^p b a^m \mid n, p, m \geq 1 \text{ } m \geq n\}$$



$q_0 \rightarrow$ INPUT a STACK 20 | A
PUSH A, stay in q_0

$q_0 \rightarrow$ INPUT b STACK 20
go to q_3

$q_0 \rightarrow$ INPUT b STACK A
go to q_1

$q_1 \rightarrow$ INPUT a STACK A

PUSH P, stay in q_1

$q_1 \rightarrow$ INPUT b STACK A

go to q_3

$q_1 \rightarrow$ INPUT a STACK P

stay in q_1

$q_1 \rightarrow$ INPUT b STACK P

POP P, go to q_2

$q_2 \rightarrow$ INPUT a STACK A

POP A, stay in q_2

$q_2 \rightarrow$ INPUT E STACK z0

go to q_4

$q_2 \rightarrow$ INPUT b STACK z0A

go to q_3

$q_2 \rightarrow$ INPUT a STACK z0

stay in q_2

$q_3 \rightarrow$ INPUT a STACK 201A
stay in q_3

$q_3 \rightarrow$ INPUT b STACK 201A
stay in q_3

$q_4 \rightarrow$ INPUT a STACK 20
stay in q_4

$q_4 \rightarrow$ INPUT b STACK 20
go to q_3

$$\delta(q_0, a, z_0) = \{(q_0, Az_0)\}$$

$$\delta(q_0, a, A) = \{(q_0, AA)\}$$

$$\delta(q_0, b, z_0) = \{(q_3, z_0)\}$$

$$\delta(q_0, b, A) = \{(q_1, A)\}$$

$$\delta(q_0, \varepsilon, z_0) = \{(q_0, z_0)\}$$

$$\delta(q_0, \varepsilon, A) = \{(q_0, A)\}$$

$$\delta(q_1, a, A) = \{(q_1, PA)\}$$

$$\delta(q_1, a, P) = \{(q_1, P)\}$$

$$\delta(q_1, b, A) = \{(q_3, A)\}$$

$$\delta(q_1, b, P) = \{(q_2, \varepsilon)\}$$

$$\delta(q_1, \varepsilon, A) = \{(q_1, A)\}$$

$$\delta(q_1, \varepsilon, P) = \{(q_1, P)\}$$

$$\delta(q_2, a, A) = \{(q_2, \varepsilon)\}$$

$$\delta(q_2, a, z_0) = \{(q_2, z_0)\}$$

$$\delta(q_2, b, A) = \{(q_3, A)\}$$

$$\delta(q_2, b, z_0) = \{(q_3, z_0)\}$$

$$\delta(q_2, \varepsilon, z_0) = \{(q_4, z_0)\}$$

$$\delta(q_2, \varepsilon, A) = \{(q_2, A)\}$$

$$\delta(q_3, a, z_0) = \{(q_3, z_0)\}$$

$$\delta(q_3, a, A) = \{(q_3, A)\}$$

$$\delta(q_3, b, z_0) = \{(q_3, z_0)\}$$

$$\delta(q_3, b, A) = \{(q_3, A)\}$$

$$\delta(q_3, \varepsilon, z_0) = \{(q_3, z_0)\}$$

$$\delta(q_3, \varepsilon, A) = \{(q_3, A)\}$$

$$\mathcal{J}(q_4, a, t_0) = \{(q_4, t_0)\}$$

$$\mathcal{J}(q_4, b, t_0) = \{(q_3, t_0)\}$$

$$\mathcal{J}(q_4, \varepsilon, t_0) = \{(q_4, t_0)\}$$

