

Practica 1, Ejercicio 1

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31 de octubre de 2022

1. Ejercicio 1.

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

$\delta(q, \sigma)$	a	b
q_0	q_0	q_1
q_1	q_1	q_1

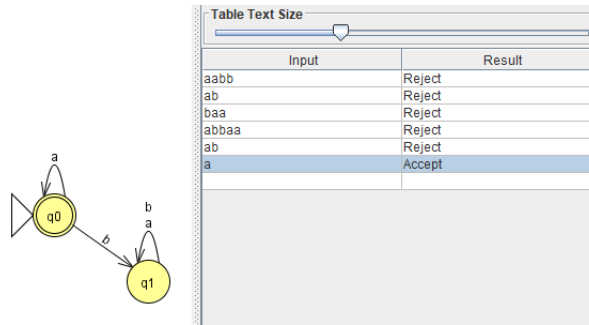


Figura 1:

$$(q_0, aabb) \vdash (q_0, abb) \vdash (q_0, bb) \vdash (q_1, b) \vdash (q_1, \varepsilon) \wedge q_1 \notin F \Rightarrow aabb \notin \mathcal{L}(M)$$

$$(q_0, ab) \vdash (q_0, b) \vdash (q_1, \varepsilon) \wedge q_1 \notin F \Rightarrow ab \notin \mathcal{L}(M)$$

$$(q_0, baa) \vdash (q_1, aa) \vdash (q_1, a) \vdash (q_1, \varepsilon) \wedge q_1 \notin F \Rightarrow baa \notin \mathcal{L}(M)$$

$$(q_0, abbba) \vdash (q_0, bbaa) \vdash (q_1, baa) \vdash (q_1, aa) \vdash (q_1, a) \vdash (q_1, \varepsilon) \vdash (q_1, \varepsilon) \wedge q_1 \notin F \Rightarrow abbba \notin \mathcal{L}(M)$$

$$(q_0, ab) \vdash (q_0, b) \vdash (q_1, \varepsilon) \wedge q_1 \notin F \Rightarrow ab \notin \mathcal{L}(M)$$

$$(q_0, a) \vdash (q_0, \varepsilon) \wedge q_0 \in F \Rightarrow a \in \mathcal{L}(M)$$

2. Ejercicio 2.

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{
  "name" : "a*",
  "representation" : {
    "K" : ["q0", "q1"],
    "A" : ["a", "b"],
    "S" : "q0",
    "F" : ["q0"],
    "t" : [["q0", "a", "q0"],
            ["q0", "b", "q1"],
            ["q1", "a", "q1"],
            ["q1", "b", "q1"]]
  },
}
```