Práctica 2

Hecho por Álvaro González Plaza

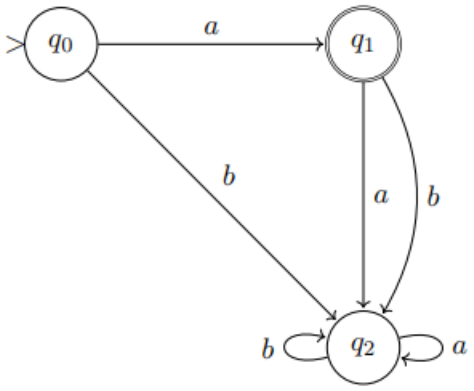
27 de octubre de 2022

1. Consider the language over the alphabet a, b that only contains the string a

$$M = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_1\}) \tag{1}$$

Sea un DFA con:

$\delta(q, \sigma)$	a	b
q_o	q_2	q_1
q_1	q_1	q_1
q_2	q_1	q_1



$$(q_0, a) \vdash (q_1, \varepsilon) \land q_1 \in F \Rightarrow a \in \mathrm{L}(M)$$

1.1. Test the automaton that you have created by introducing 6 chains

Obtenemos lo siguiente:

- a: accepted
- ab: rejected
- aaaa: rejected
- ababb: rejected
- abbba: rejected
- bbba: rejected

2. Autómata en JFLAP

Hacemos lo siguiente:

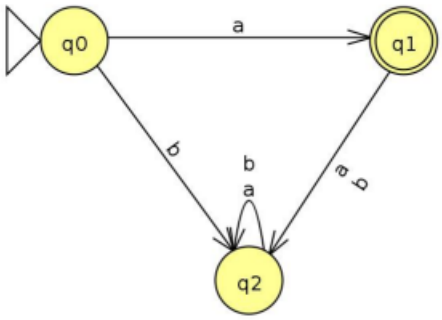


Figura 1: Autómata determinista

3. Autómata en JSON

{ "K": ["q0", "q1", "q2"], "s": "q0", "F": ["q1"], "t": [["q0", ."a", "q1"], ["q0", "b", "q2"], ["q1", ."a", "q2"], ["q1", "b", "q2"], ["q2", ."a", "q2"], ["q1", "b", "q2"]] }

Automata en JSON, testeable con Octave.