

Practica 2

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2 Informatica A

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- 1 Consider the language over the alphabet a, b that only contains the string a . Build a DFA that recognizes this language and rejects all those strings that do not belong to the language.

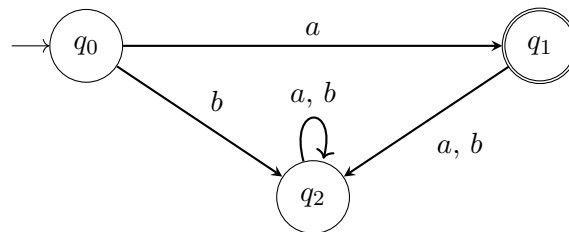
1.1 Mathematical description of the automaton

$M = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_1\})$ with:

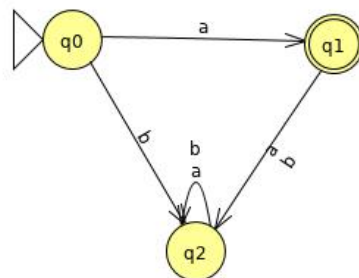
$$\delta = \{("q_0", "a", "q_1"), ("q_0", "b", "q_2"), ("q_1", "a", "q_2"), ("q_2", "a", "q_2"), ("q_2", "b", "q_2"), ("q_1", "b", "q_2")\}$$

Or also $M = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_1\})$ as a DFA with:

$\delta(q, \sigma)$	a	b
q_0	q_1	q_2
q_1	q_2	q_2
q_2	q_2	q_2



1.2 Image from JFLAP



2 JSON file

```
{
  "name" : "a",
  "representation" : {
    "K" : ["q0", "q1", "q2"],
    "A" : ["a", "b"],
    "s" : "q0",
    "F" : ["q1"],
    "t" : [ ["q0", "a", "q1"],
             ["q0", "b", "q2"],
             ["q1", "a", "q2"],
             ["q2", "a", "q2"],
             ["q2", "b", "q2"],
             ["q1", "b", "q2"] ]
  }
}
```