

Teoría de Autómatas y Lenguajes Formales

Práctica 2

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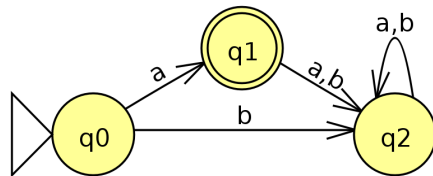
23 de octubre de 2022

1. Ejercicio 2.1

Consider the language over the alphabet $\{a,b\}$ that only contains the string a .

a. Build a DFA that recognizes this language and rejects all those strings that do not belong to the language.

$M = (\{q0, q1, q2\}, \{a, b\}, \{(q0, a, q1), (q0, b, q2), (q1, a, q2), (q1, b, q2), (q2, a, q2), (q2, b, q2)\}, q0, q1)$



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

Input	Result
a	Accept
aaa	Reject
aaba	Reject
abba	Reject
bbaa	Reject
ba	Reject

2. Ejercicio 2.2

Finite automaton in Octave:

b. Specify in **infiniteautomata.json** the automaton created in Activity 1 and test it with the script!

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