

Practica 2

Teoria de Automatas y Lenguajes Finitos

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Toda esta practica sera resuelta con el lenguaje dado, con un alfabeto de $\{a,b\}$ y que solo contiene la cadena $\{a\}$

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

El siguiente automata finito determinista representa el lenguaje.

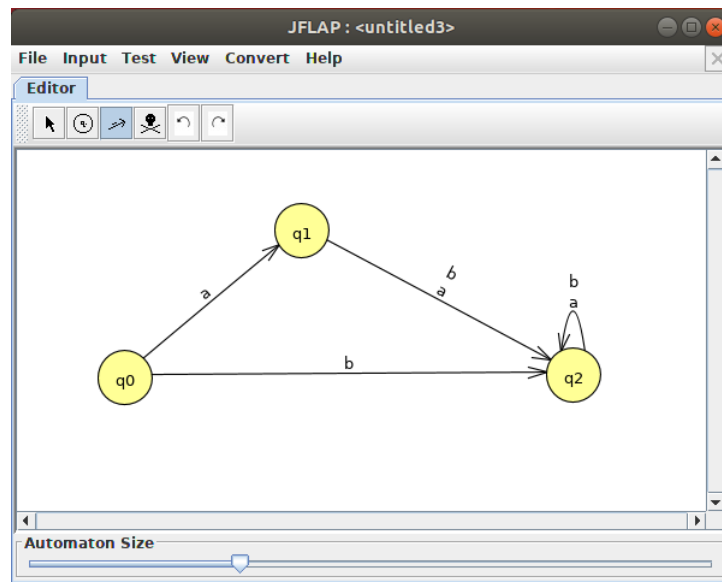


Figure 1:

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

A continuacion se probara el anterior automata con seis cadenas distintas:

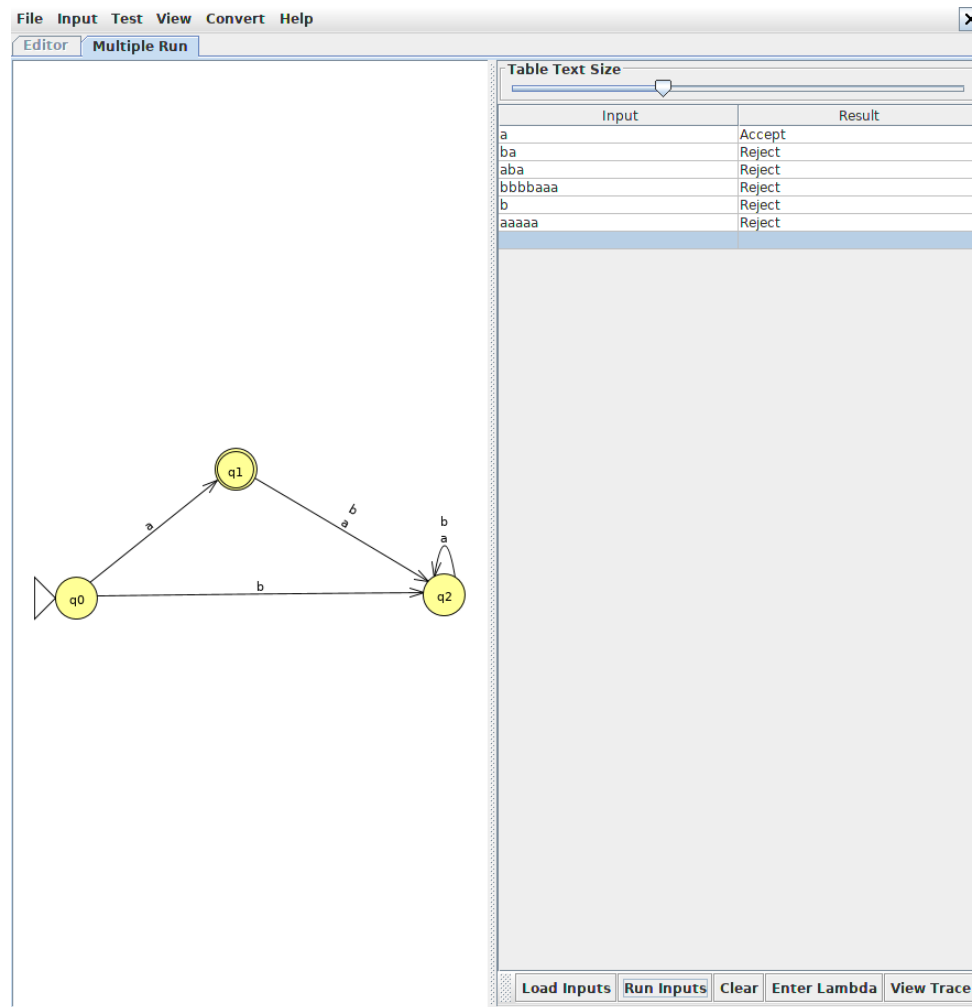


Figure 2:

3 Specify in `finiteautomata.json` the automaton created in Activity 1 and test it with the script

En la siguiente imagen observamos las lineas que hay que introducir en `finiteautomata.json` para reproducir el automata finito derterminista anterior:

```
{,
{
  "name" : "ejercicio_2",
  "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"]
    ]
  }
}
```

Figure 3:

Al intentar ejecutar `finiteautomaton.m` me salia el siguiente error:

```
octave:9> finiteautomaton("ejercicio_2", "a")
error: min: nonconformant arguments (op1 is 1x4, op2 is 0x0)
error: called from
  loadjson>error_pos at line 409 column 12
  loadjson>parse_char at line 258 column 9
  loadjson>parse_array at line 231 column 13
  loadjson>parse_value at line 377 column 17
  loadjson>parse_object at line 131 column 17
  loadjson>parse_value at line 380 column 17
  loadjson>parse_object at line 131 column 17
  loadjson>parse_value at line 380 column 17
  loadjson>parse_array at line 226 column 17
  loadjson at line 104 column 28
  loadrepresentation at line 47 column 8
  finiteautomaton at line 61 column 13
octave:9>
```

Figure 4: