

INSTITUTO FEDERAL DO ESPÍRITO SANTO
BACHAREL EM SISTEMAS DE INFORMAÇÃO

Linguagens Formais e Autômatos – Bach. Sistemas de Informação

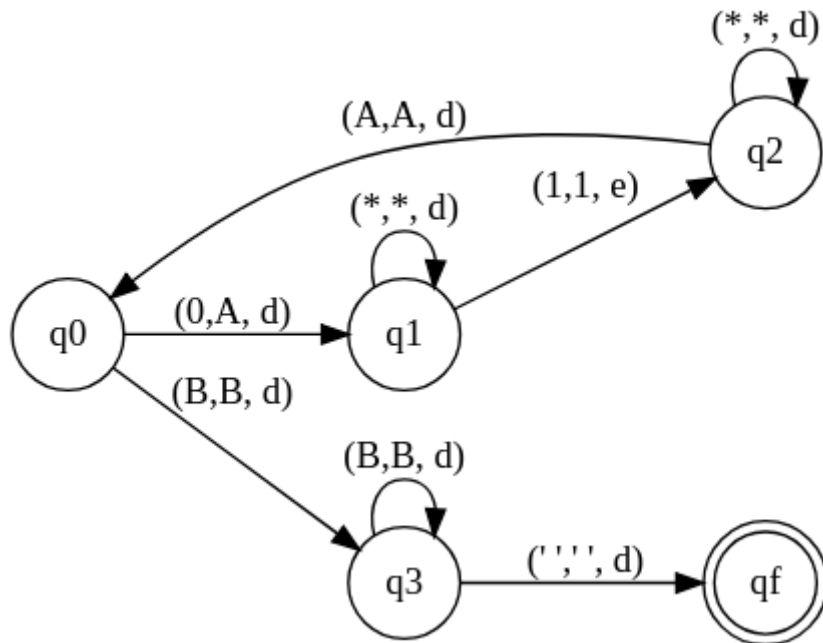
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Trabalho 3 - Máquina de Turing e Computabilidade

SERRA

2019

1)



```

0 0 A r s1
0 1 1 r halt-reject
0 B B r qf

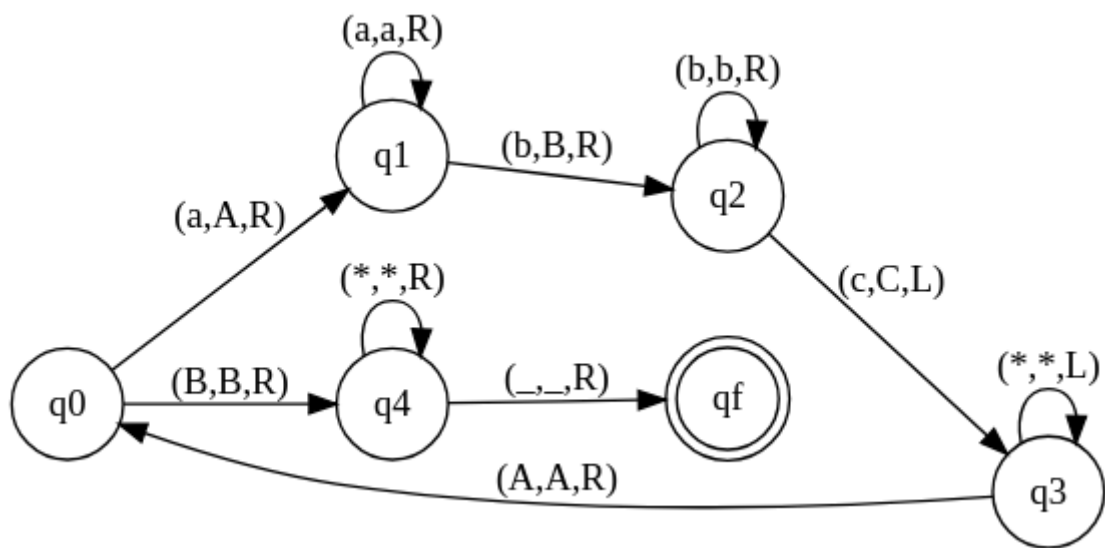
s1 * * r s1
s1 _ _ r halt-rejec
s1 1 B l s2

s2 * * l s2
s2 A A r 0

qf B B r qf
qf 1 1 r halt-reject
qf _ _ r halt-accept

```

2)



```

0 a A r q1
0 B B r q4
0 A A r halt-reject

q1 * * r q1
q1 b B r q2
q1 _ _ r halt-reject

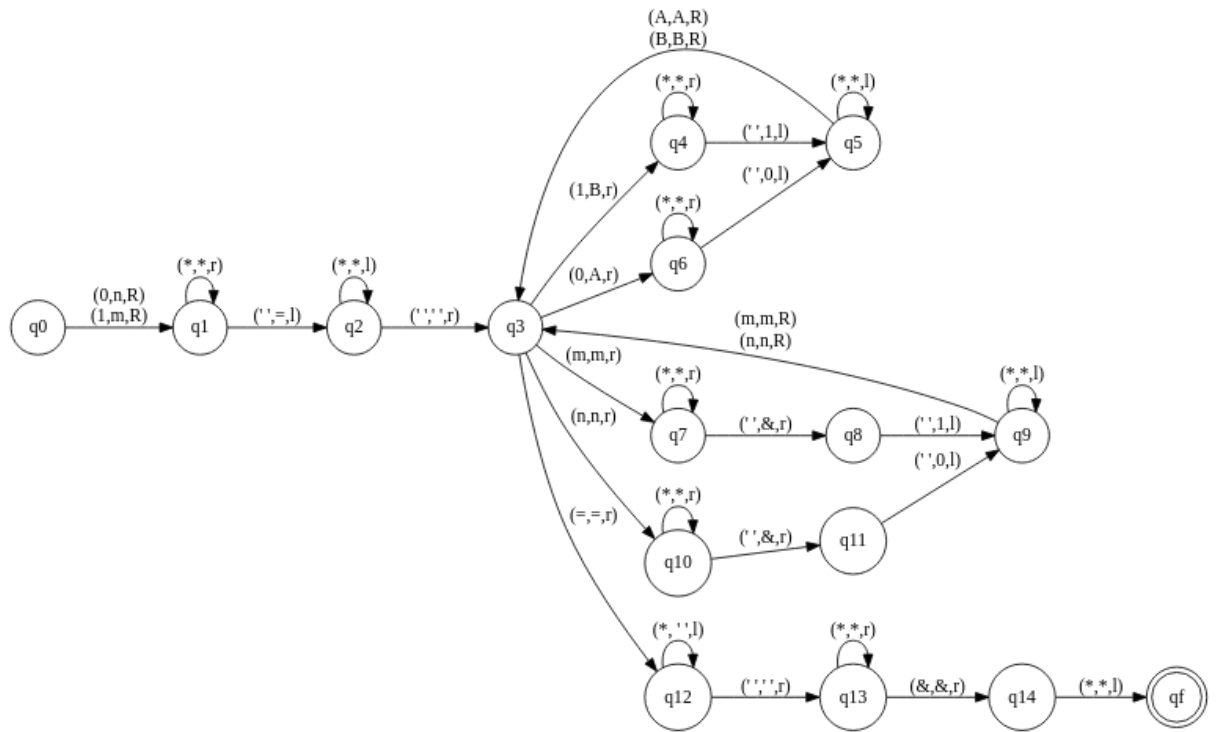
q2 * * r q2
q2 c C l q3
q2 _ _ r halt-reject

q3 * * l q3
q3 A A r 0

q4 * * r q4
q4 _ _ r halt-accept
q4 a a r halt-reject
q4 b b r halt-reject

```

3)



0 0 A r q1

0 1 B r q1

q1 * * r q1

q1 _ _ l q2

q2 0 _ r q3

q2 1 _ r q5

q2 B _ r q7

q2 A _ r q6

q3 _ 0 l q4

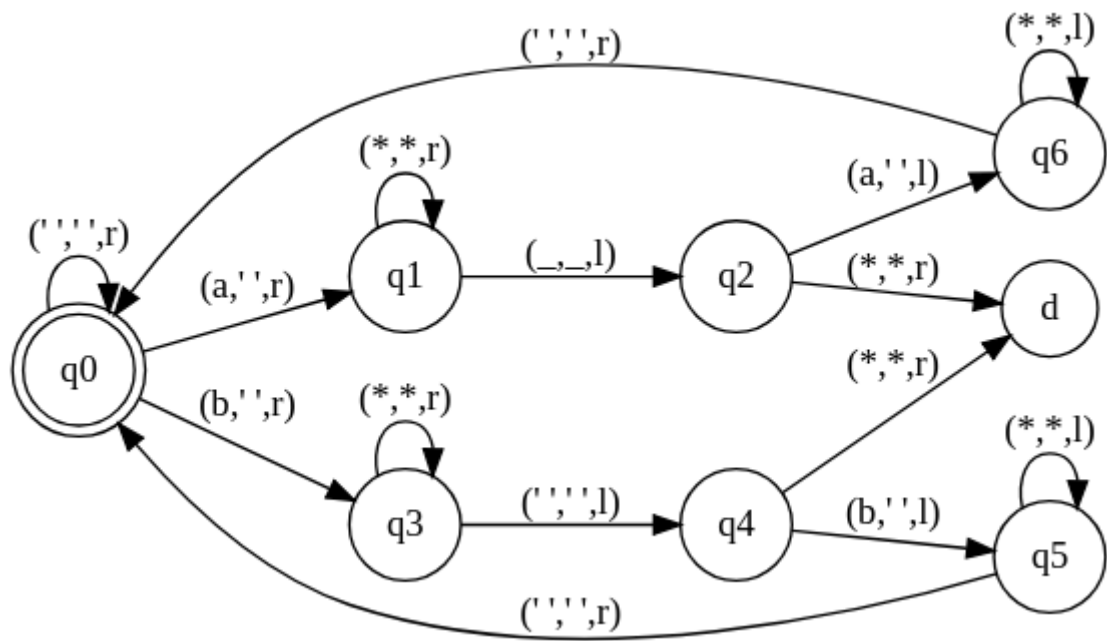
q4 _ _ l q2

q5 _ 1 l q4

q6 _ 0 l halt-accept

q7 _ 1 l halt-accept

5)



```

0 a _ r q1
0 b _ r q3
0 _ _ r halt-accept

q1 * * r q1
q1 _ _ l q2

q2 a _ l q6
q2 * * r halt-reject

q3 * * r q3
q3 _ _ l q4

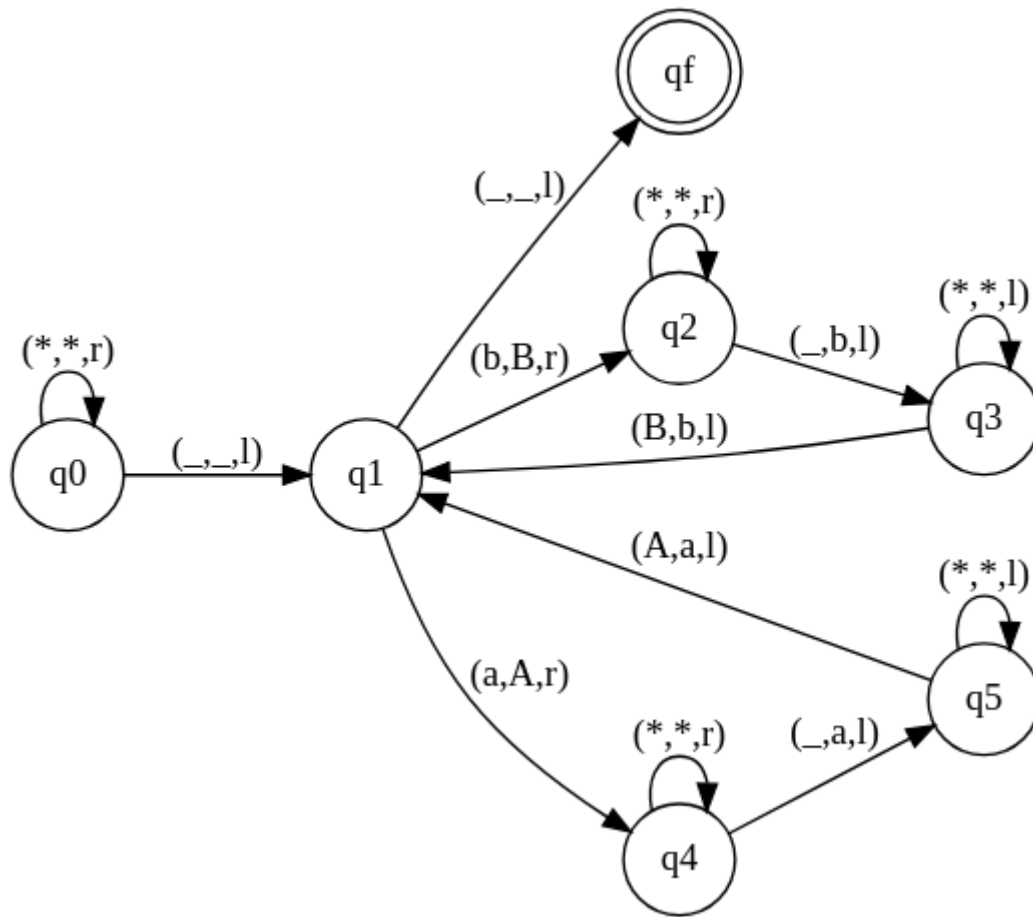
q4 * * r halt-reject
q4 b _ l q5

q5 _ _ r 0
q5 * * l q5

q6 * * l q6
q6 _ _ r 0

```

6)



```

0 * * r 0
0 _ _ l q1

q1 b B r q2
q1 a A r q4
q1 _ _ l halt-accept

q2 * * r q2
q2 _ b l q3

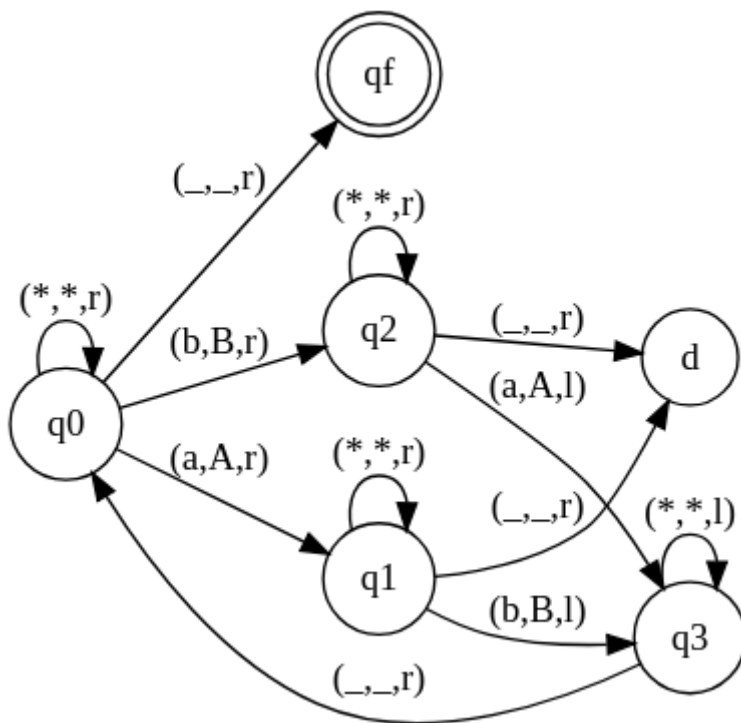
q3 * * l q3
q3 B b l q1

q4 * * r q4
q4 _ a l q5

q5 * * l q5
q5 A a l q1

```

7)



```

0 a A r q1
0 b B r q2
0 * * r 0
0 _ _ r halt-accept

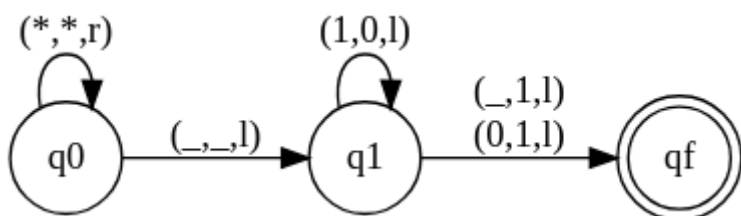
q1 * * r q1
q1 b B l q3
q1 _ _ r halt-reject

q2 * * r q2
q2 a A l q3
q2 _ _ r halt-reject

q3 * * l q3
q3 _ _ r 0

```

8)



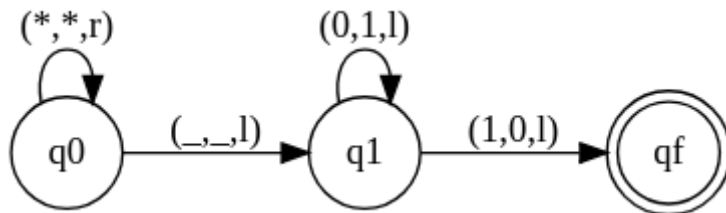
```

0 * * r 0
0 _ _ l q1

q1 1 0 l q1
q1 _ 1 l halt-accept
q1 0 1 l halt-accept

```

9)



```

0 * * r 0
0 _ _ l q1

; se achar um '1' já pode terminar o processamento e aceitar direto após
; trocar seu valor para '0'
q1 1 0 l halt-accept
q1 0 1 l q1

```