

Actividad 3.1

Fernando Daniel Monroy Sánchez

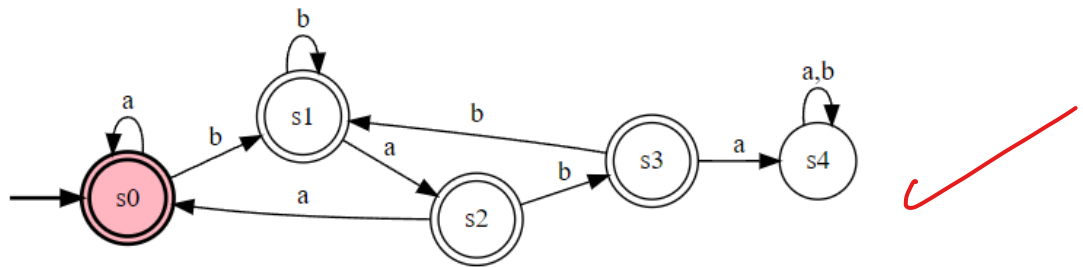
A01750536

TC2037.601

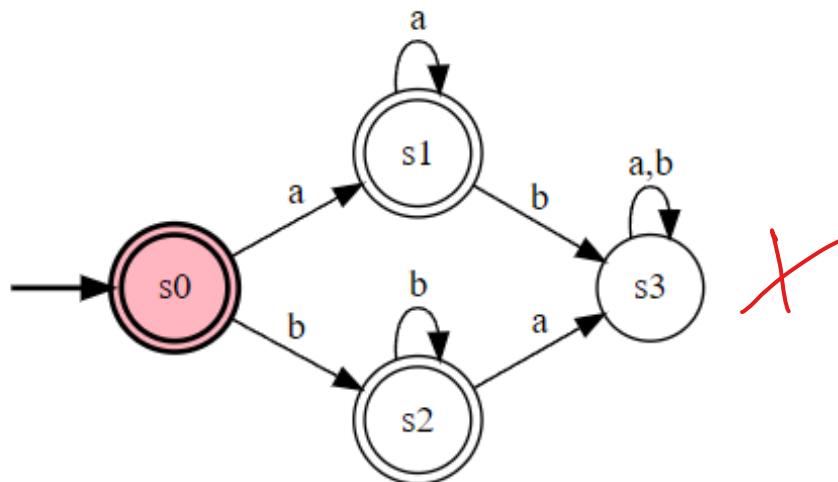
Marzo 15, 2024

Autómatas finitos deterministas

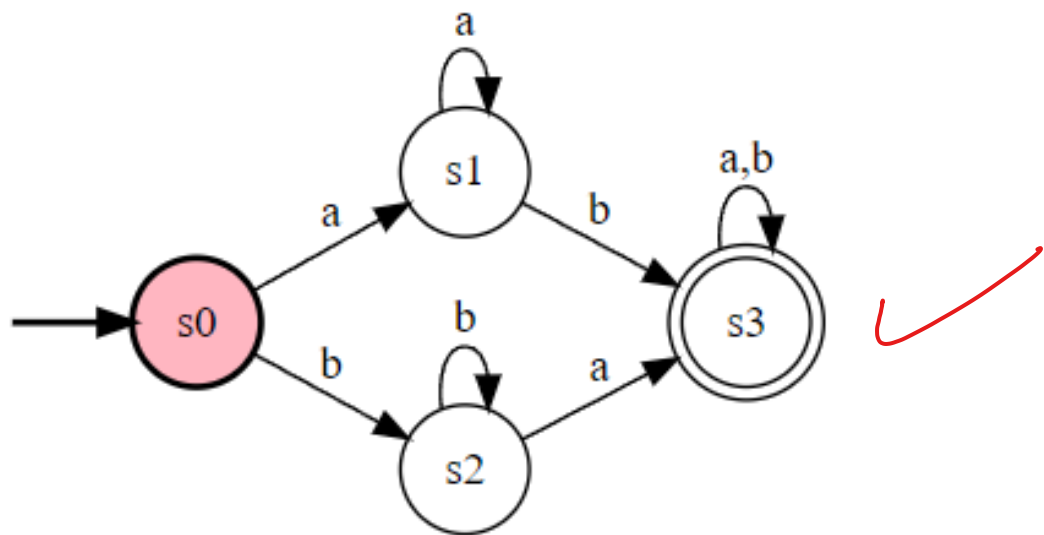
1. L_1



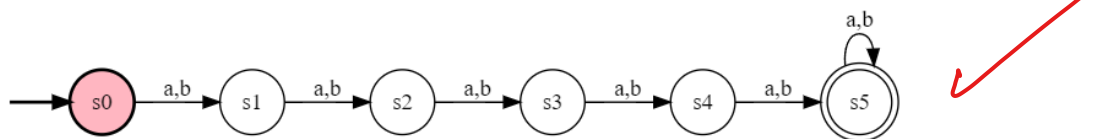
2. L_2



3. L_3

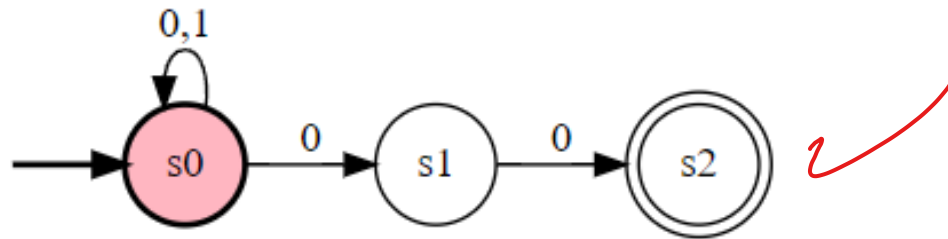


4. L_4

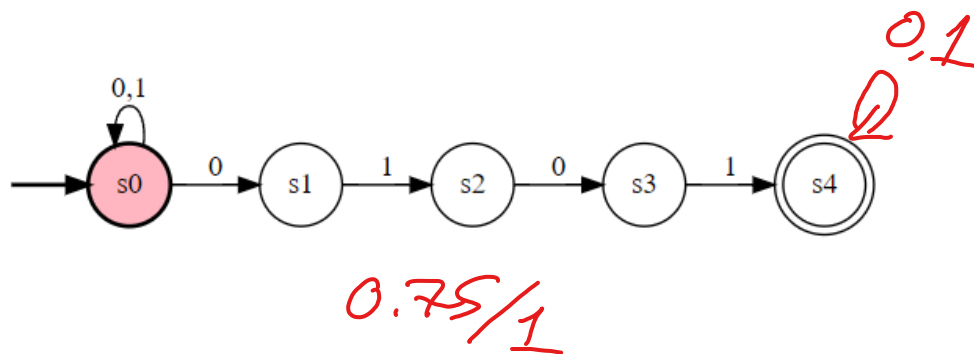


Autómatas finitos no deterministas

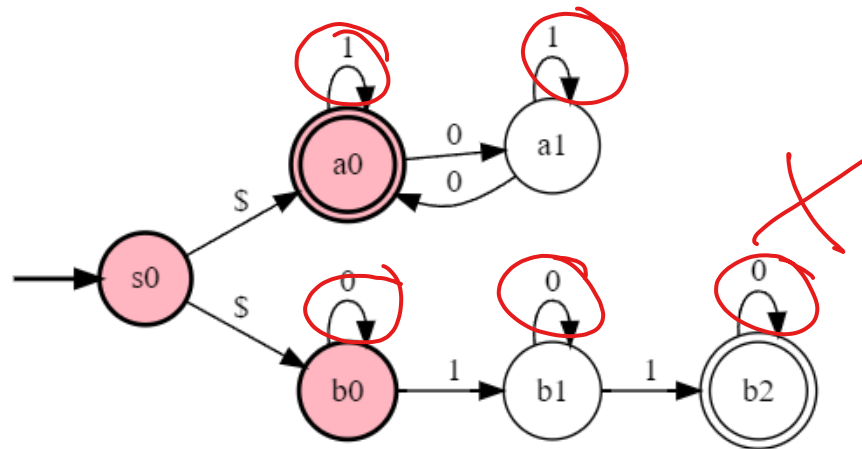
1. L_5



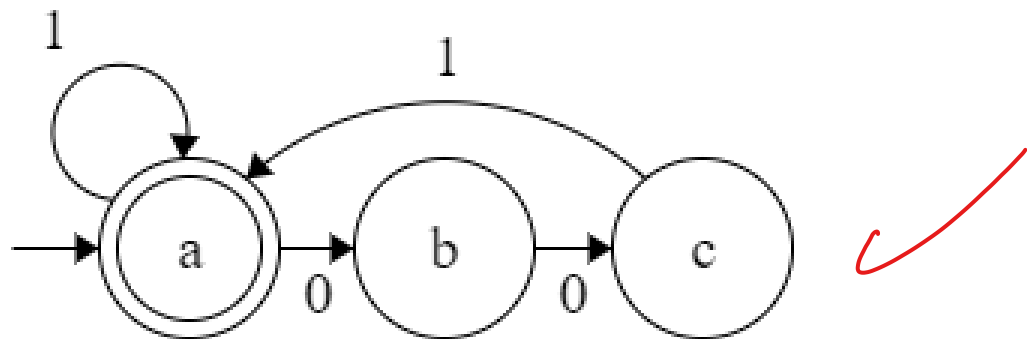
2. L_6



3. L_7

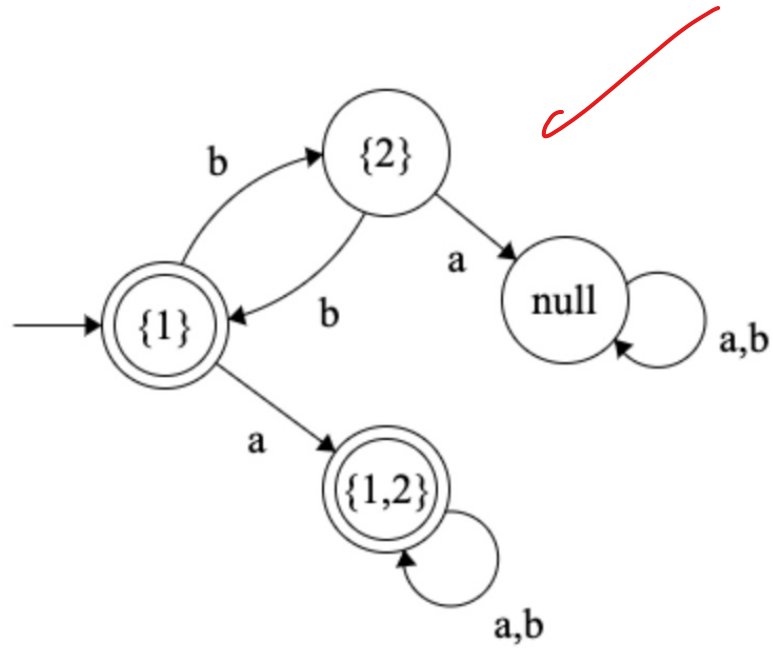


4. L_8



Conversión de NFAs a DFAs

1.

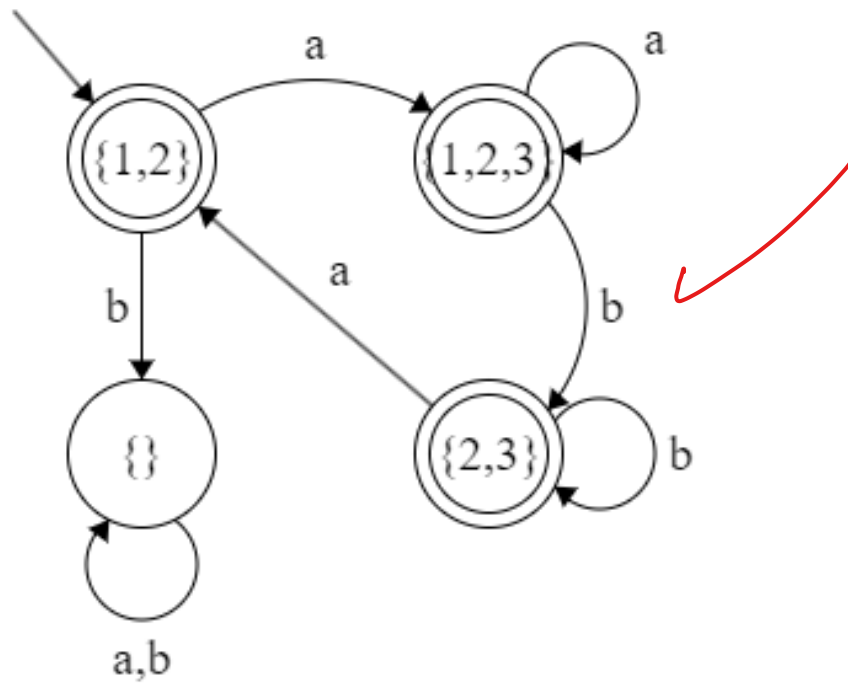


$Q' = \{\{\emptyset\}, \{1\}, \{2\}, \{1,2\}\}$
 $E = \{a, b\}$
 $q_0' = \{1\}$
 $F' = \{\{1\}, \{1,2\}\}$

$\delta =$

	a	b
\emptyset	\emptyset	\emptyset
1	1,2	2
2	\emptyset	1
1,2	1,2	1,2

2.



$Q' = \{\{\emptyset\}, \{1,2\}, \{2,3\}, \{1,2,3\}\}$

$E = \{a, b\}$

$q_0' = \{1,2\}$

$F' = \{\{1,2\}, \{2,3\}, \{1,2,3\}\}$

$\delta =$

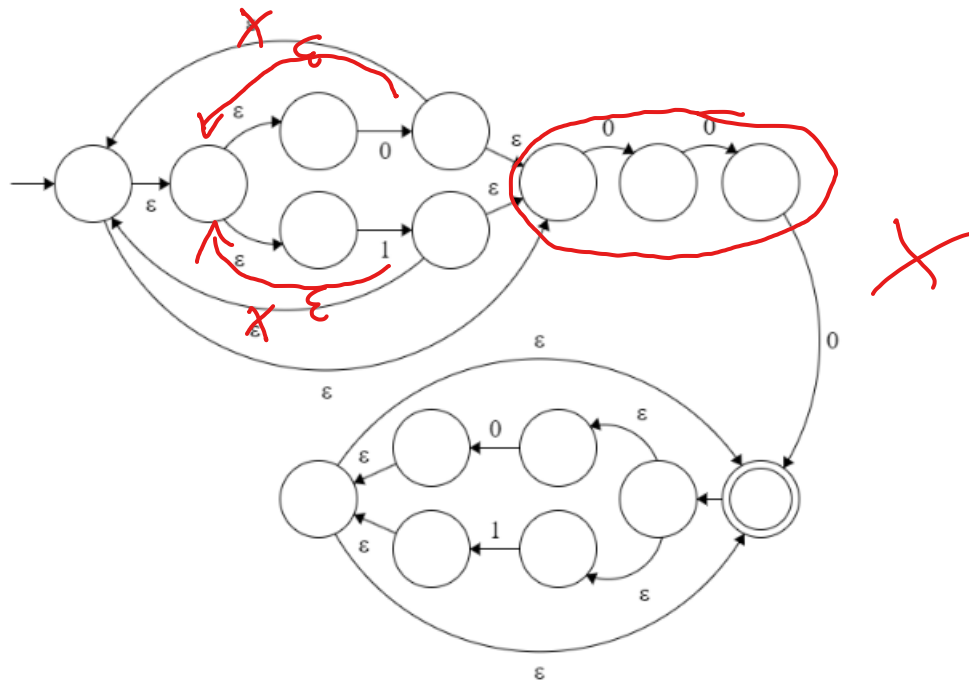
	a	b
\emptyset	\emptyset	\emptyset
1,2	1,2,3	\emptyset
2,3	1,2	2,3
1,2,3	1,2,3	2,3

Construcción de expresiones regulares

1. $A_1 = 1\Sigma^*0$ ✓
2. $A_2 = \Sigma^*1\Sigma^*1\Sigma^*1\Sigma^*$ ✓
3. $A_3 = \Sigma^*0101\Sigma^*$ ✓
4. $A_4 = \Sigma^20\Sigma^*$ ✓

Expresiones regulares y NFAs

1. R_1



2. R_2

