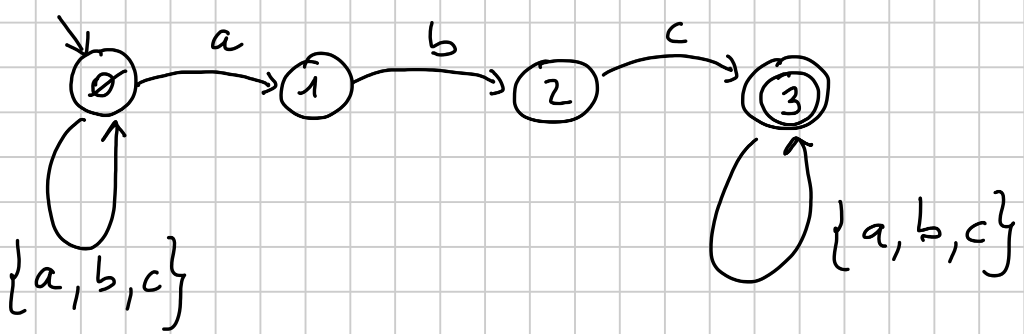
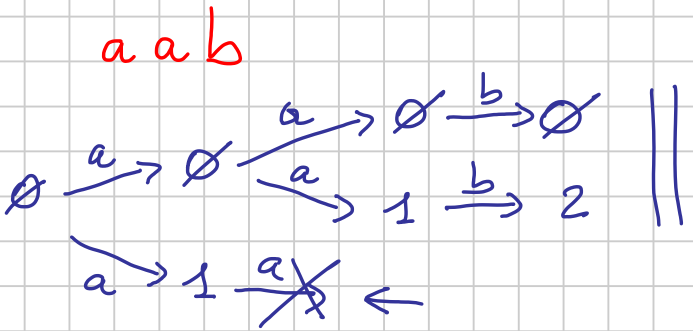
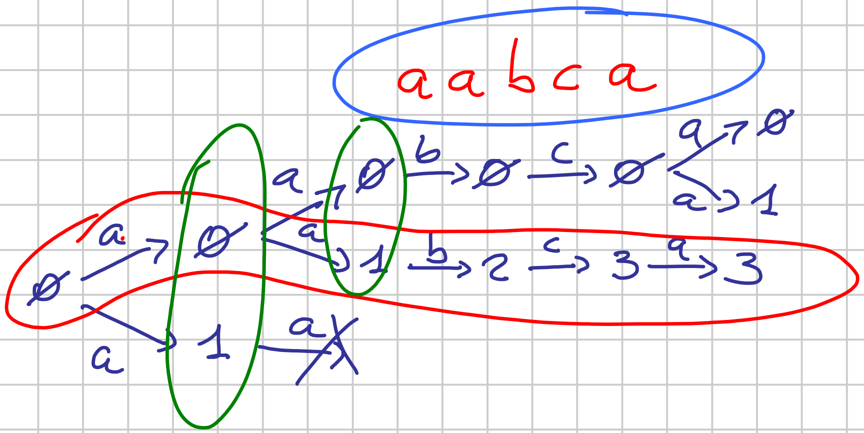
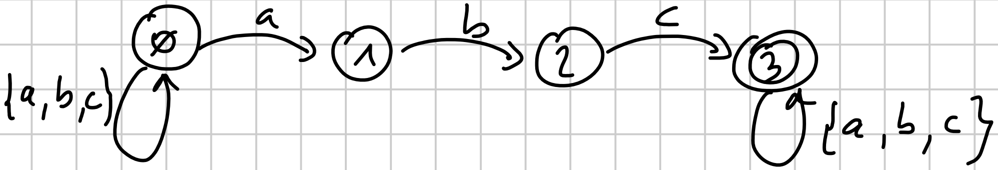
$$\Sigma = \{a, b, c\} \qquad L = \{\underline{\alpha\, abc\, \beta} \mid \alpha, \beta \in \Sigma^*\}$$









$\delta(\emptyset, a) = \emptyset$ $\quad \delta(\emptyset, a) = 1$

$\delta(\emptyset, b) = \emptyset$ $\quad \delta(\emptyset, c) = \emptyset$

$\delta(1, b) = 2$ $\quad \delta(2, c) = 3$

$\delta(3, a) = 3$ $\quad \delta(3, b) = 3$ $\quad \delta(3, c) = 3$

$\{\emptyset\} \xrightarrow{a} \{\emptyset, 1\}$

$\{\emptyset\} \xrightarrow{b} \{\emptyset\}$

$\{\emptyset\} \xrightarrow{c} \{\emptyset\}$

$\{\emptyset, 1\} \xrightarrow{a} \{\emptyset, 1\}$

$\{\emptyset, 1\} \xrightarrow{b} \{\emptyset, 2\}$

$\{\emptyset, 1\} \xrightarrow{c} \{\emptyset\}$

$\{\emptyset, 2\} \xrightarrow{a} \{\emptyset, 1\}$

$\{\emptyset, 2\} \xrightarrow{b} \{\emptyset\}$

$\{\emptyset, 2\} \xrightarrow{c} \{\emptyset, 3\}$

$\{\emptyset, 3\} \xrightarrow{a} \{\emptyset, 1, 3\}$

$\{\emptyset, 3\} \xrightarrow{b} \{\emptyset, 3\}$

$\{\emptyset, 3\} \xrightarrow{c} \{\emptyset, 3\}$

$\{\emptyset, 1, 3\} \xrightarrow{a} \{\emptyset, 1, 3\}$

$\{\emptyset, 1, 3\} \xrightarrow{b} \{\emptyset, 2, 3\}$

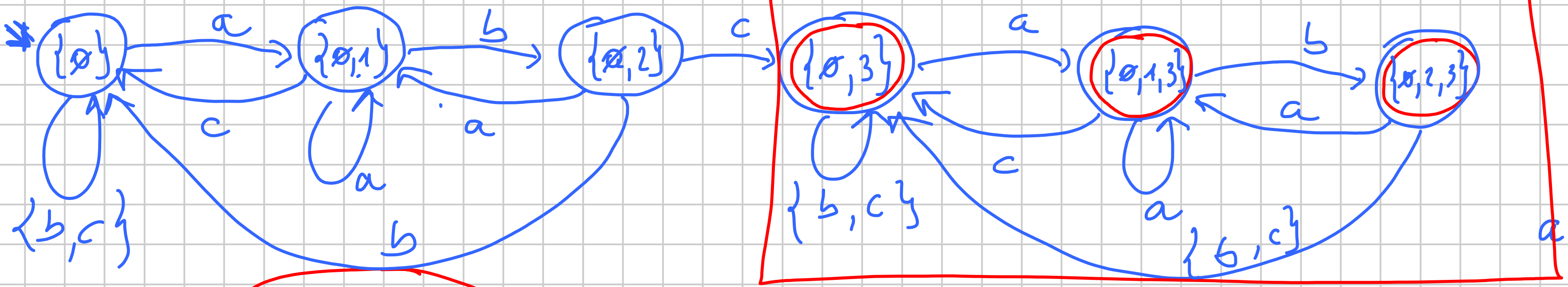
$\{\emptyset, 1, 3\} \xrightarrow{c} \{\emptyset, 3\}$

$\{\emptyset, 2, 3\} \xrightarrow{a} \{\emptyset, 1, 3\}$

$\{\emptyset, 2, 3\} \xrightarrow{b} \{\emptyset, 3\}$

$\{\emptyset, 2, 3\} \xrightarrow{c} \{\emptyset, 3$

Costruzione per sottoinsiemi



aabca

$\{\emptyset\} \xrightarrow{a} \{\emptyset, 1\}$

$\{\emptyset\} \xrightarrow{b} \{\emptyset\}$

$\{\emptyset\} \xrightarrow{c} \{\emptyset\}$

$\{\emptyset, 1\} \xrightarrow{a} \{\emptyset, 1\}$

$\{\emptyset, 1\} \xrightarrow{b} \{\emptyset, 2\}$

$\{\emptyset, 1\} \xrightarrow{c} \{\emptyset\}$

$\{\emptyset, 2\} \xrightarrow{a} \{\emptyset, 1\}$

$\{\emptyset, 2\} \xrightarrow{b} \{\emptyset\}$

$\{\emptyset, 2\} \xrightarrow{c} \{\emptyset, 3\}$

$\{\emptyset, 3\} \xrightarrow{a} \{\emptyset, 1, 3\}$

$\{\emptyset, 3\} \xrightarrow{b} \{\emptyset, 3\}$

$\{\emptyset, 3\} \xrightarrow{c} \{\emptyset, 3\}$

$\{\emptyset, 1, 3\} \xrightarrow{a} \{\emptyset, 1, 3\}$

$\{\emptyset, 1, 3\} \xrightarrow{b} \{\emptyset, 2, 3\}$

$\{\emptyset, 1, 3\} \xrightarrow{c} \{\emptyset, 3\}$

$\{\emptyset, 2, 3\} \xrightarrow{a} \{\emptyset, 1, 3\}$

$\{\emptyset, 2, 3\} \xrightarrow{b} \{\emptyset, 3\}$

$\{\emptyset, 2, 3\} \xrightarrow{c} \{\emptyset, 3$

Titolo nota 28/09/2015

$$\boxed{ASFD \subseteq ASFND}$$

δ è una relazione che è una funzione

δ è una relazione

Preso un ASFND sono in grado di costruire un ASFD equivalente (che riconosce lo stesso insieme di stringhe su Σ)

Titolo nota 28/09/2015

$A_{nd} = \langle \Sigma, Q, S, F, \delta \rangle$

$A_d = \langle \Sigma, \wp_Q, \{S\}, F', \delta' \rangle$

$\delta'(P) = \{ P' \mid P' \in \wp_Q$ e $\delta(s) \in P'$ per $s \in P \}$

$= \{ \delta(s) \mid s \in P \}$

$A_{nd} \in ASFND$

$A_d \in ASFD$

F' contiene i sottoinsiemi di Q che contengono almeno uno stato in F

Dato un insieme I $\left(F' = \{ P \mid P \in \wp_Q \text{ e } P \cap F \neq \{\} \} \right)$

l'insieme dei sottoinsiemi di I si indica $\underline{\underline{\wp_I}}$ (parti di I)

$I = \{ \emptyset, 1, 2 \}$.

$\wp_I = \{ \{\}, \{\emptyset\}, \{1\}, \{2\}, \{\emptyset, 1\}, \{\emptyset, 2\}, \{1, 2\}, \{\emptyset, 1, 2\} \}$

$\Sigma = \{a, b\}$

$L = \{ \alpha ab \mid \alpha \in \Sigma^* \}$

grafo

simboli di Σ

	a	b
→ $\emptyset$	$\emptyset, 1$	$\emptyset$
1	–	2
2	–	–

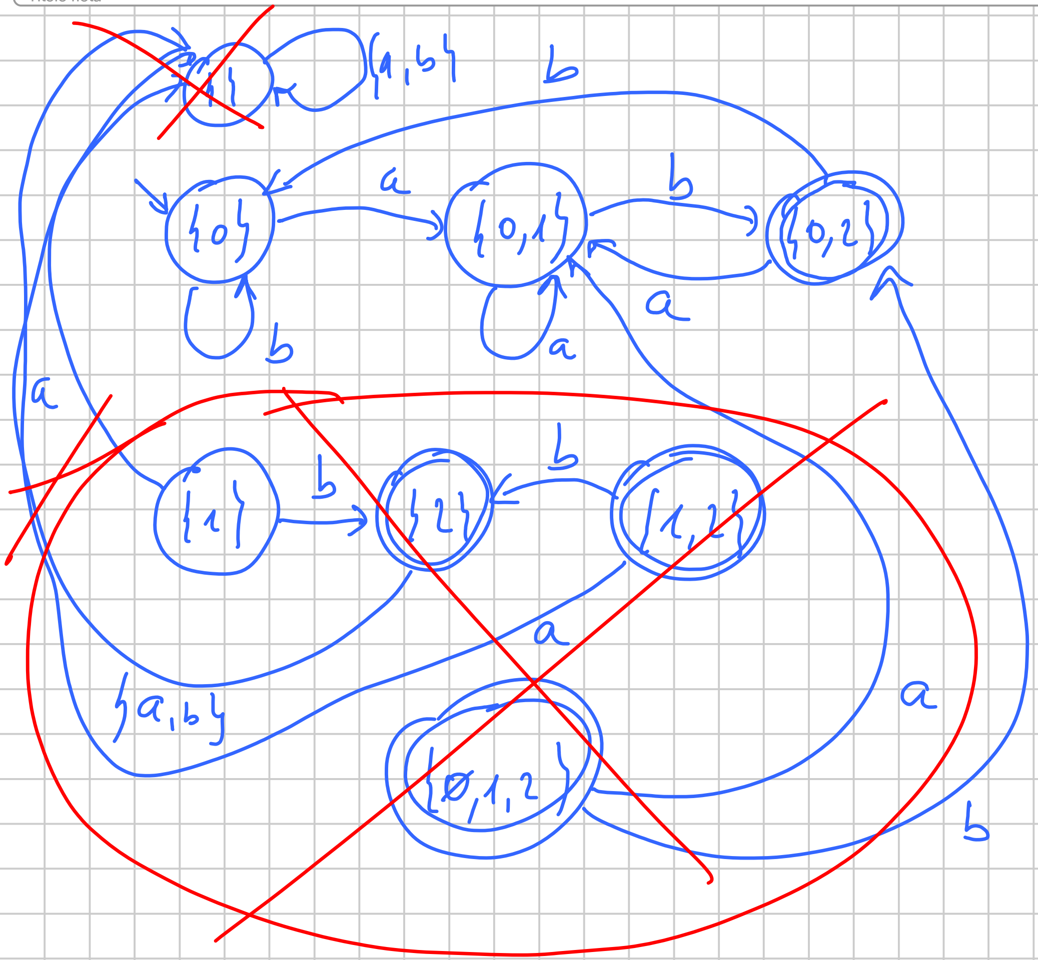
Tabelle

stati di Q

	a	b
$\{\}$	$\{\}$	$\{\}$
→ $\{\emptyset\}$	$\{\emptyset, 1\}$	$\{\emptyset\}$
$\{1\}$	$\{\}$	$\{2\}$
$\{2\}$	$\{\}$	$\{\}$
$\{\emptyset, 1\}$	$\{\emptyset, 1\}$	$\{\emptyset, 2\}$
$\{\emptyset, 2\}$	$\{\emptyset, 1\}$	$\{\emptyset\}$
$\{1, 2\}$	$\{\}$	$\{2\}$
$\{\emptyset, 1, 2\}$	$\{\emptyset, 1\}$	$\{\emptyset, 2\}$

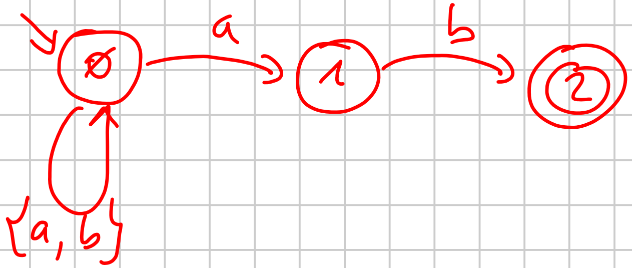
Tabelle

Titolo nota 28/09/2015

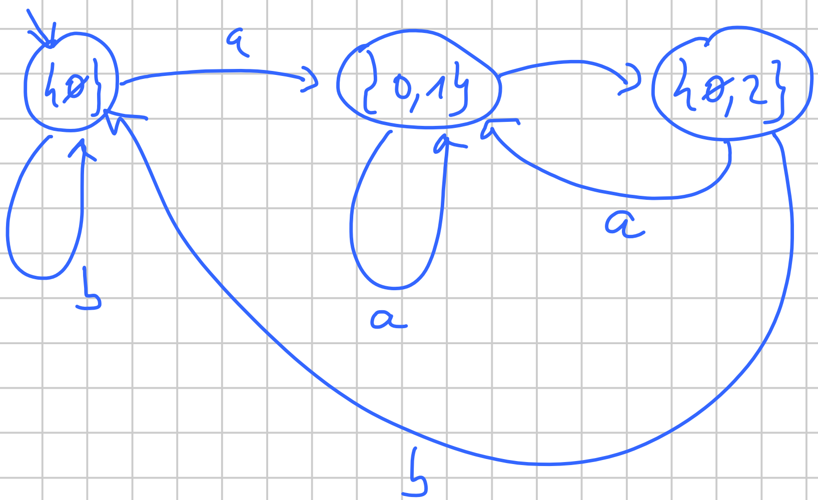


Tabelle

	a	b
~~{}~~	~~{}~~	~~{}~~
→ {∅}	{∅,1}	{∅}
~~{1}~~	~~{}~~	~~{2}~~
~~{2}~~	~~{}~~	~~{}~~
{∅,1}	{∅,1}	{∅,2}
{∅,2}	{∅,1}	{∅}
~~{1,2}~~	~~{}~~	~~{2}~~
~~{∅,1,2}~~	~~{∅,1}~~	~~{∅,2}~~



	a	b
{∅}	{∅,1}	{∅}
{∅,1}	{∅,1}	{∅,2}
{∅,2}	{∅,1}	{∅}

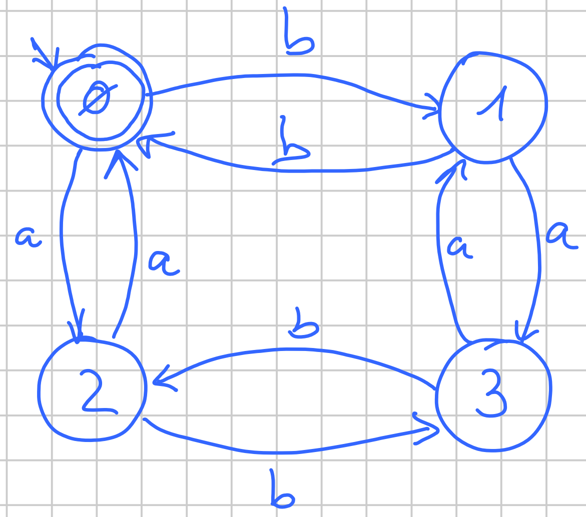


Titolo nota 28/09/2015

$\Sigma = \{a, b\}$

$L =$ insieme delle stringhe che contengono un numero pari (anche $\emptyset$) di simboli a e un numero pari di simboli b

quando lo stato iniziale è di accettazione ε è riconosciuto



$\emptyset$ pari a e pari b

1 pari a e dispari b

2 dispari a e pari b

3 dispari a e dispari b

$aabab \notin L$

$bbbb \in L$

$aabb \in L$

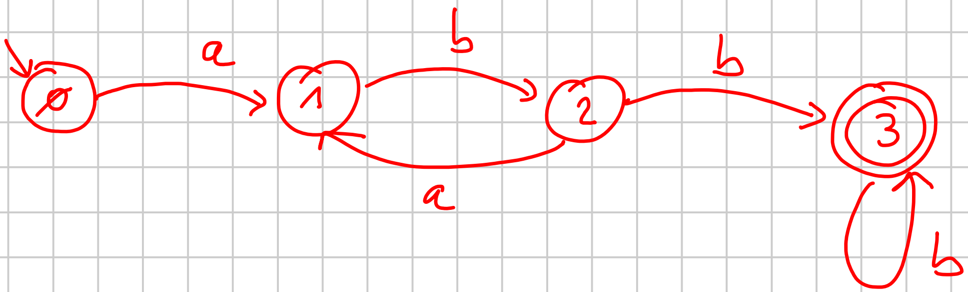
$abab \in L$

$baba \in L$

$abba \in L$

$\varepsilon \in L$

$\Sigma = \{a, b\}$ $L = \{(ab)^n b^m \mid n, m > 0\}$

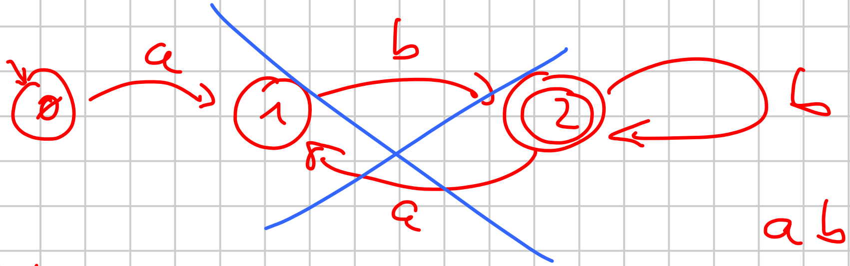


$abb \in L$

$\underbrace{abab}\underbrace{bbb} \in L$

bbb

$0 \quad \cancel{b}$



$ab \notin L$

riconosce $abbbbab \notin L$