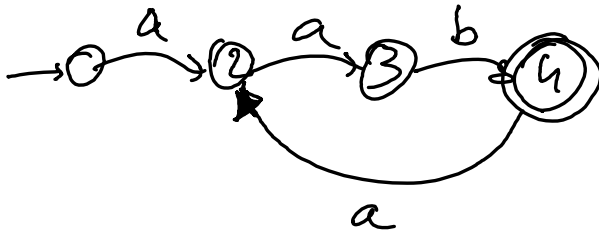
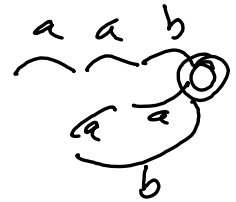
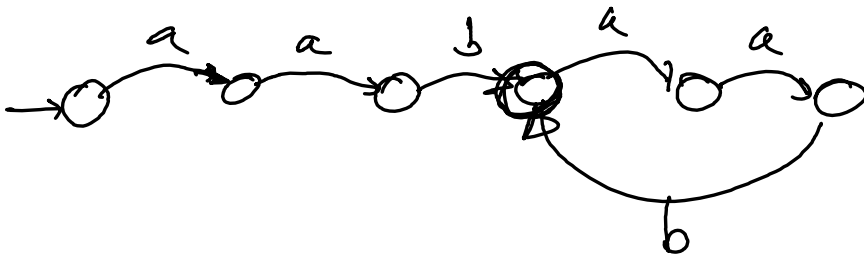


$\mathcal{L} = \{ \text{~~ε~~, aab, aabaab, aabaabaab...} \}$

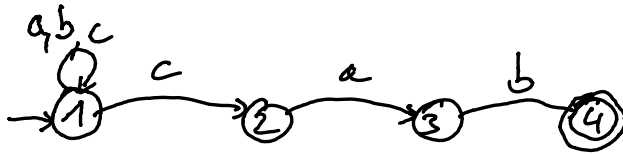


aabaab
1 2 3 4

$$X = \{a, b, c\}$$

moti qui se terminent par cab

$$L = \{acab, cab, aaaccab, \dots\}$$

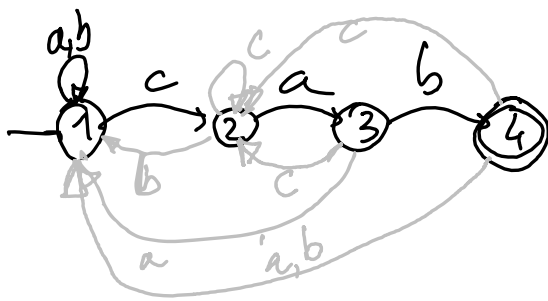


$$\left. \begin{array}{l} abcab \\ 1 \ 1 \ 1 \ 2 \ 3 \ 4 \\ abcab \\ 1 \ 1 \ 1 \ 1 \ 1 \ 1 \end{array} \right\} 2 \text{ chemins dans l'automate}$$

automate non déterministe

non complet

	a	b	c
→ 1	1	1, 2	
2	3		
3		4	
← 4			



déterminisation

ccab ✓

cbcab ✓

ca₃cab

caa...cab

cabcab

cababc cab

cabb...cab

	a	b	c
→ 1	1	1	2
2	3	1	2
3	1	4	2
← 4	1	1	2

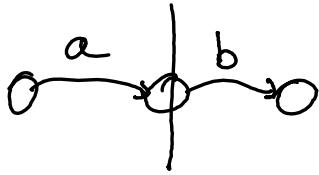
déterministe
complet

ca₁ccab_{1 2 3}

ca₁cab_{2 3 = 1}

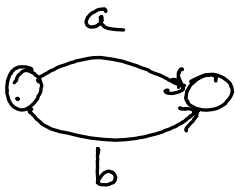
ch2 Expressions régulières

1. Opérations rationnelles



$a.b$

concaténation



$a|b$

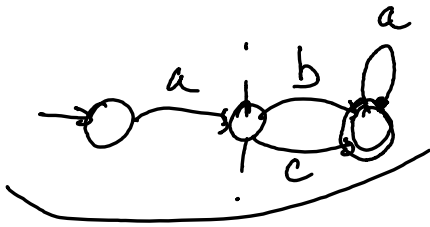
réunion

"ou"



a^*

'etoile (de Kleene)



- ab
- ac
- aba
- aca
- abaa
- acaa....

Kleene

$$a \cdot (b|c) \cdot a^*$$

$$a(b|c)a^*$$

représentation d'un langage

expressions rationnelles (\cdot | $*$)

\equiv
expressions régulières (grammaires régulières)

équivalence regexp \leftrightarrow automates

\times \rightarrow

2. Extension du langage

$$\left(\left(\underline{a.b.c} \mid \underline{d} \right)^* \cdot \underline{e} \right) \mid (f \mid g)$$

 a^*


0 ou m
occurrences
de a

 a^+


1 ou m
occurrences
de a

$$a^+ = aa^*$$

$$(aab)^* \longrightarrow (aab)^+$$

$$aab.(aab)^*$$

