

TD 3 : Minimization

Exercice 1 Minimize the following automaton (the initial state is 1, the final states are {3, 6, 8}):

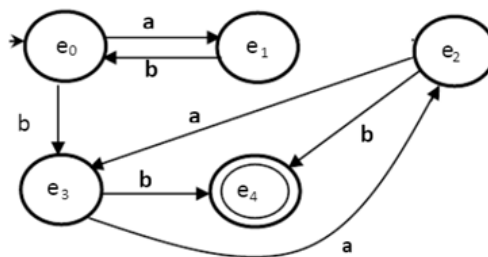
	a	b	c
1	2	3	4
2	1	5	6
3	1	5	6
4	2	6	1
5	4	7	8
6	4	5	3
7	4	5	3
8	9	3	6
9	7	3	9

Exercice 2 Let the following regular grammar G:

$$G = \left[\{a, b\}, \{S, B, C\}, S, \left\{ \begin{array}{l} S \rightarrow aB/C \\ B \rightarrow aB/bC/a \\ C \rightarrow b \end{array} \right\} \right]$$

1. Provide the finite state automaton recognizing the language generated by G.
2. Minimize the automaton from question 1.

Exercice 3 Minimize the following automaton:



Exercice 3 Determinize and minimize the following automaton if necessary:

