

Games, graphs, and machines

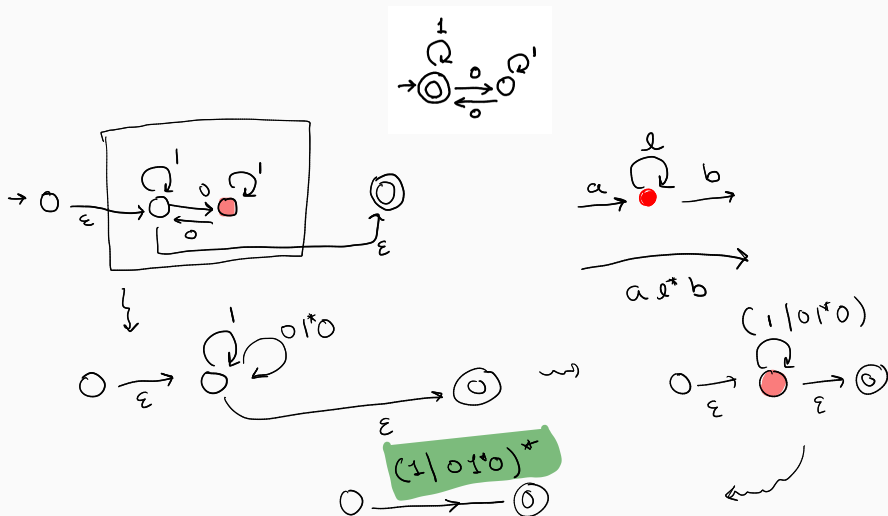


“Begin at the beginning,”
the King said, very gravely,
“and go on till you come to the end: then stop.”

October 1, 2024

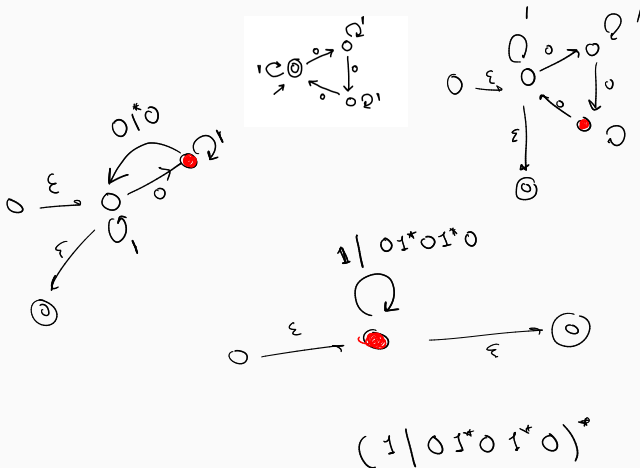
Counting evens

This DFA accepts strings with even number of 0s. Convert it to a regex.



Counting mod 3

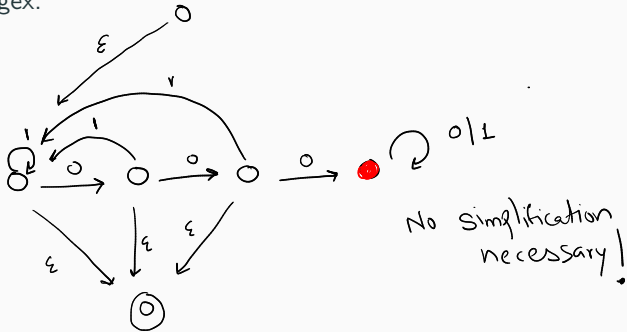
This DFA accepts strings with number of 0s divisible by 3. Convert it to a regex.

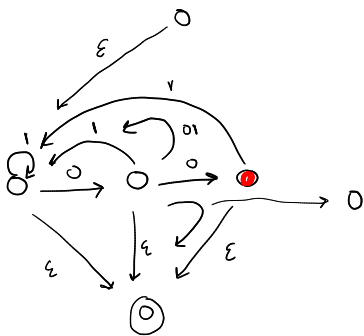


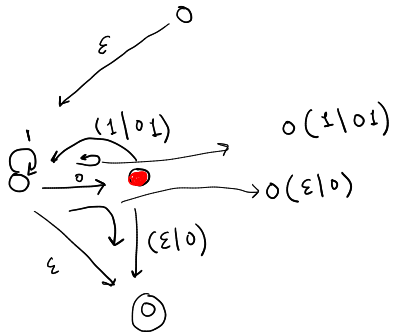
Not containing 000

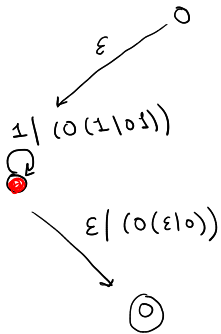
Not containing 000

Draw a DFA that accepts the strings containing 000, negate it, and convert to a regex.









$$(1 \mid 0(1 \mid 01))^* (\epsilon \mid (0(\epsilon \mid 0)))$$