

Find a Büchi automaton A that recognizes the language T' defined as follows:

$$T' = \{ t \in T_A^{\omega} : \text{every path contains infinitely many occurrences of 'a'} \}$$

Alphabet $A = \{a, b\}$

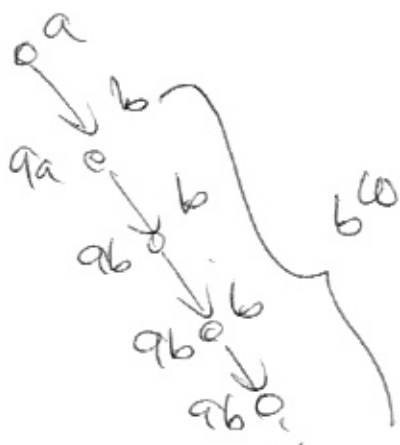
$A = (Q, \Delta, q_0, F)$, where

$$Q = \{q_0, q_a, q_b\}, \quad F = \{q_a\}, \quad \text{and}$$

$$\Delta = \{ (q_0, a, q_a, q_a)^*, (q_0, b, q_b, q_b), (q_a, a, q_a, q_a), (q_a, b, q_b, q_b), (q_b, a, q_a, q_a), (q_b, b, q_b, q_b) \}$$

Büchi acceptance condition: for every path, ...

a violation:



another violation:

