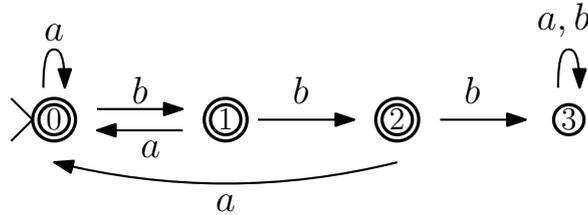


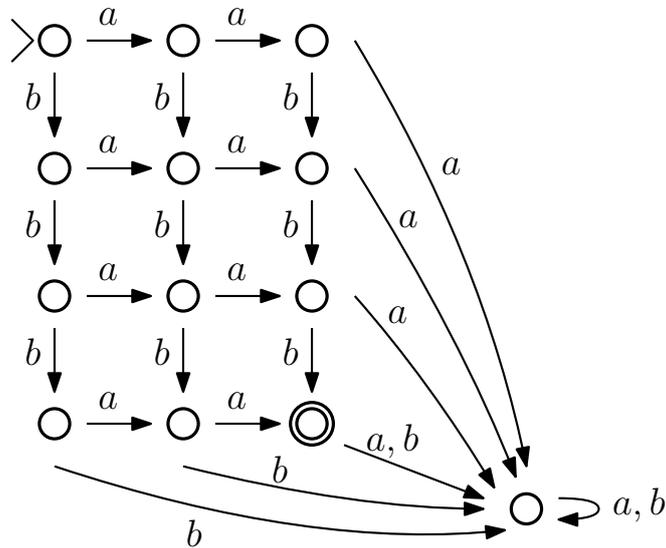
COSC 341 – Tutorial 5 (Solution)

1. Design a DFA on the alphabet $\{a, b\}$ that accepts:

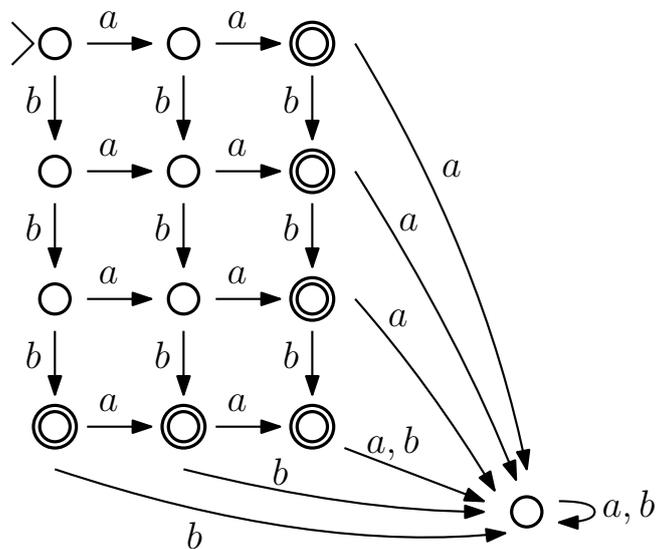
(a) the language of all words not containing the substring bbb



(b) the language of all words with exactly two a 's and three b 's

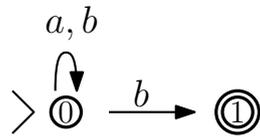


(c) the language of all words with exactly two a 's or exactly three b 's

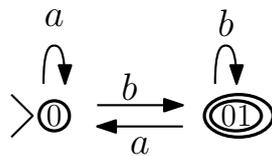


2. Design an NFA on the alphabet $\{a, b\}$ that accepts the language of words that end with b . Construct a DFA that is equivalent to this NFA.

NFA:

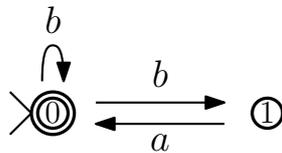


DFA:



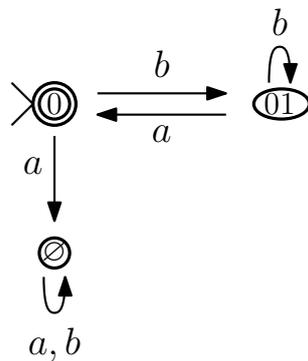
Homework

1. Let M be following NFA on the alphabet $\{a, b\}$:

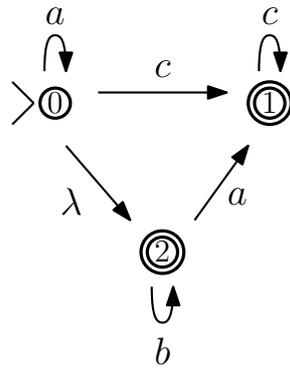


Construct a DFA that is equivalent to M .

DFA:



2. Let M be following NFA on the alphabet $\{a, b, c\}$:



Construct a DFA that is equivalent to M .

DFA:

