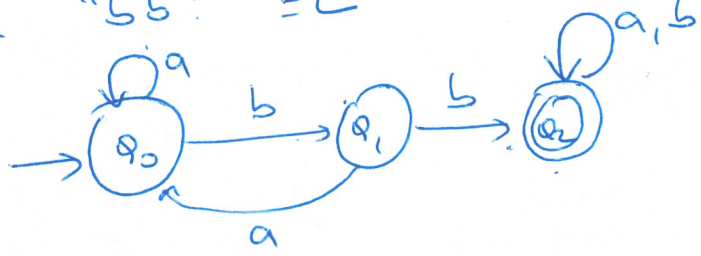
CS3311
Nov. 7, 2012
Wednesday (1)

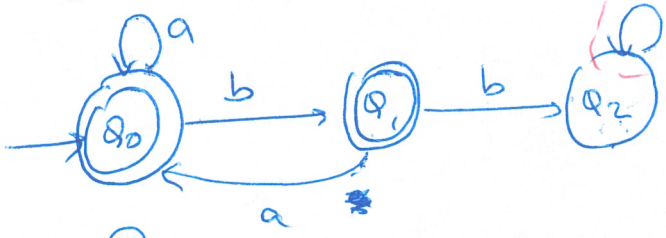
* Design a DFA that accepts all the strings that contain a "bb" = L



$M_1 = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_2\})$
F

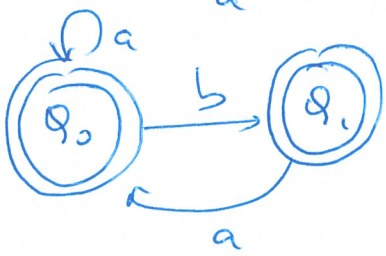
a	b	b	a

* Design a DFA that accepts all the strings that do not contain a "bb" = $\overline{L}$



can omit this because it would transition to the dead state.

w
q_n



$M_2 = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_0, q_1\})$

$M_1 = (Q, \Sigma, \delta, q_0, F)$ $L(M_1)$

M_2 where $L(M_2) = L(\overline{M_1})$ is constructed as:

$M_2 = (Q, \Sigma, \delta, q_0, Q - F)$

$\overline{F}$

* Design a machine with $\Sigma = \{a, b\}$ that accepts strings with an even number of "a"s (0 even) and odd number of "b"s.