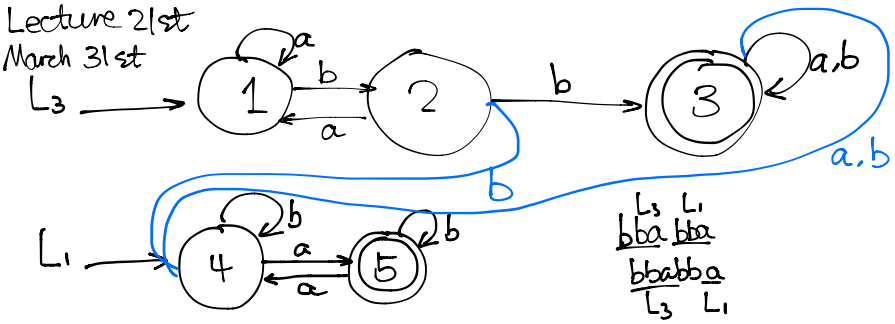
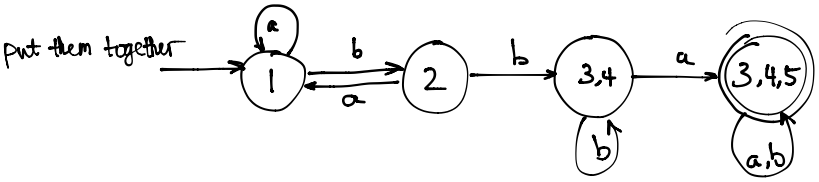
Lecture 21st
March 31st



$L_3 \circ L_1$

L_3 L_1
bba bba
bbabba
L_3 L_1

put them together

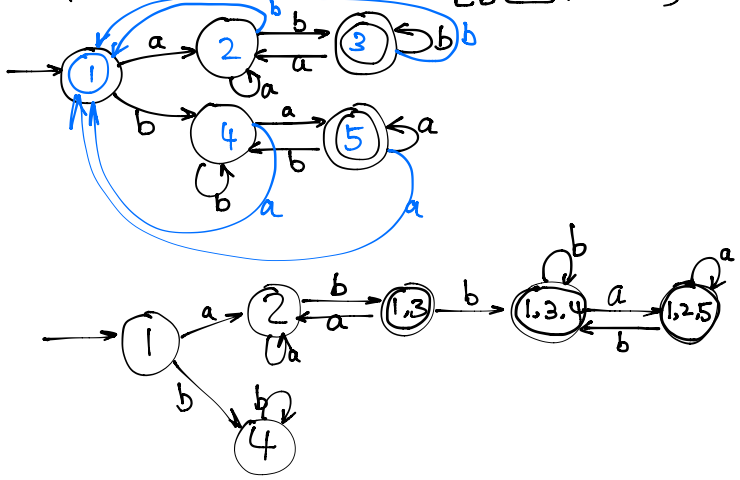


KLEENE — *

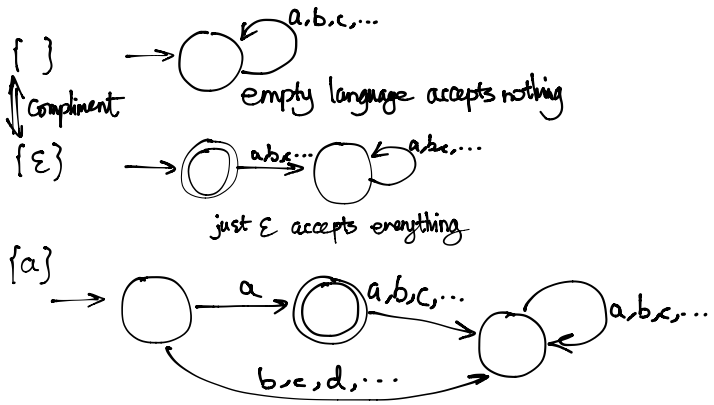
$L^* = \{s_0 s_1 \cdots s_n : n \in \mathbb{N}, s_0, \cdots, s_n \in L\} \cup \{\varepsilon\}$

Let L be the language over {a,b} of strings that Starts and ends with different symbol.

$L^* = \{ab, ba, abab, abba, bbba, abbabbba, \varepsilon, \cdots\}$



$L^{\neq} = L^* \setminus \{\varepsilon\}$



a^n b^n comment notation

$\{\underbrace{aa\cdots a}_{n}\underbrace{bb\cdots b}_{n} : n\in\mathbb{N}\} = \{\varepsilon, ab, aabb, aaabbb, \cdots\}$ CANNOT MAKE A DFA FOR IT

$\{\varepsilon, a, aa, aaa, \ldots\}$

a	b	Accepted
aaa	b	Rejected
a^{236}	b^{236}	Accepted
a^{123}	b^{236}	Rejected

$n \neq m$

a^n	b^n	A
a^m	b^n	R