Name : TRIDIB SARKAR   Section: F
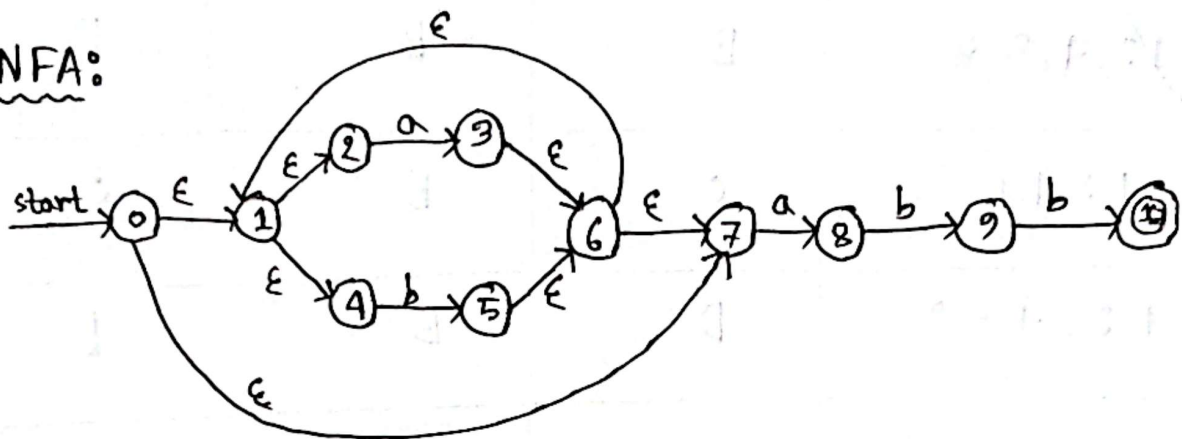
ID : 22-46444-1

Example - 1

Regular Expression : $(a|b)^* abb$
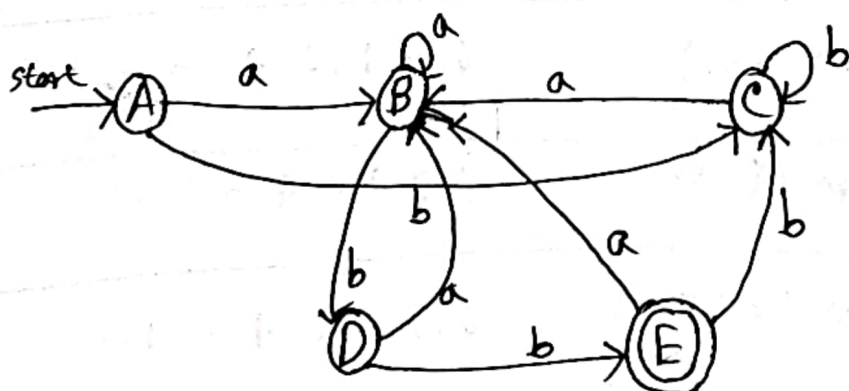
NFA:

DFA state	E-closure of	E-closure outcome states
A	E-closure ({0})	0, 1, 2, 4, 7
B	E-closure ({3, 8})	6, 7, 1, 2, 4, 3, 8
C	E-closure ({5})	6, 7, 1, 2, 4, 5
D	E-closure ({5, 9})	6, 7, 1, 2, 4, 5, 9
E	E-closure ({5, 10})	6, 7, 1, 2, 4, 5, 10

NFA states	DFA state	a	b
0,1,2,4,7	A	B	C
6,7,1,2,4,3,8	B	B	D
6,7,1,2,4,5	C	B	C
6,7,1,2,4,5,9	D	B	E
6,7,1,2,4,5,10	E	B	C

DFA:

Exercise - 1

NFA:
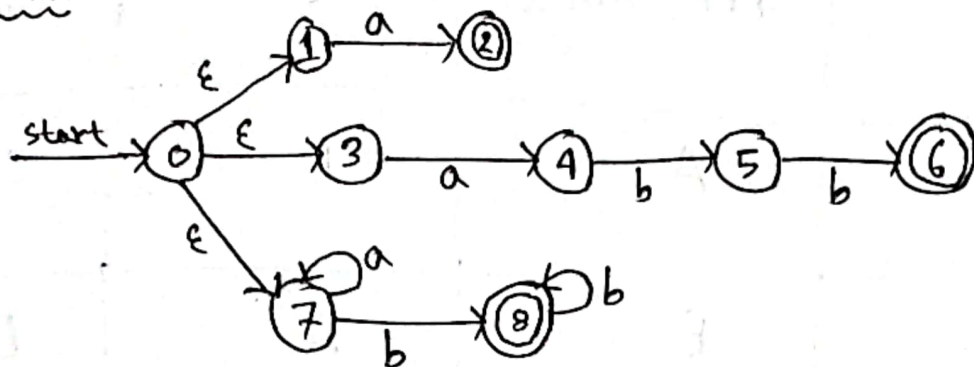
DFA state	E-Closure of	E-Closure outcome states
A	E-Closure ({0})	0, 1, 3, 7
B	E-Closure ({2,4,7})	2, 4, 7
C	E-Closure ({8})	8
D	E-Closure ({7})	7
E	E-Closure ({5,8})	5, 8
F	E-Closure ({6,8})	6, 8

NFA states	DFA states	a	b
0, 1, 3, 7	A	B	C
2, 4, 7	B	D	E
8	C	C	C
7	D	D	e
5, 8	E	∅	F
6, 8	F	∅	C

DFA: