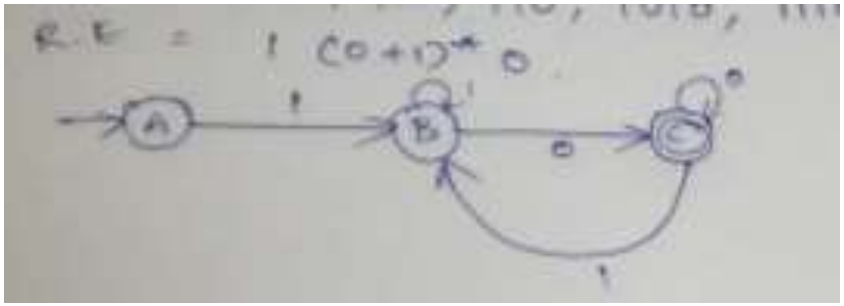
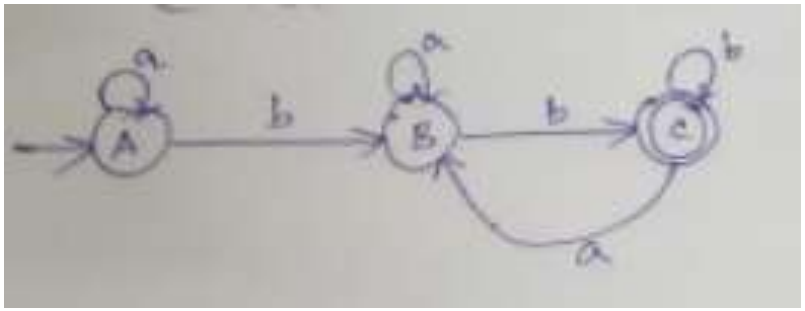
Construction of DFA - Examples

- Set of strings over {0,1} that start with 1 and end with 0
  - R.L ={10,100,110,1010,111010,10110,....}
  - R.E = 1(0+1)*0

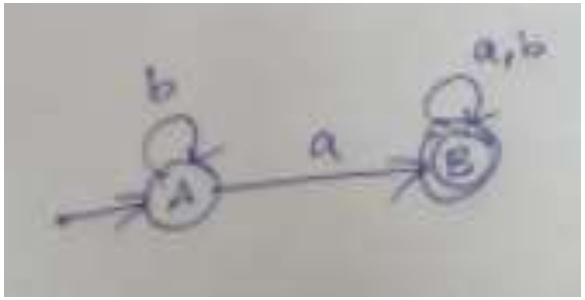


- Set of strings over {a,b} that ends with bb
  - R.L = {bb,abb,bbb,ababb,abaabb,.....}
  - R.E =(a+b)*bb



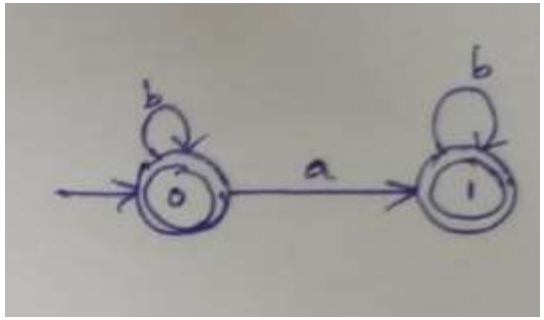
Construction of DFA - Examples

- Set of strings over {a,b} that has atleast 1 a
  - (a+b)*a(a+b)*

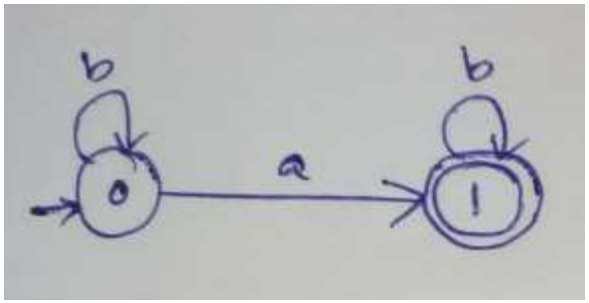


Set of strings over {a,b} that has atmost 1 a

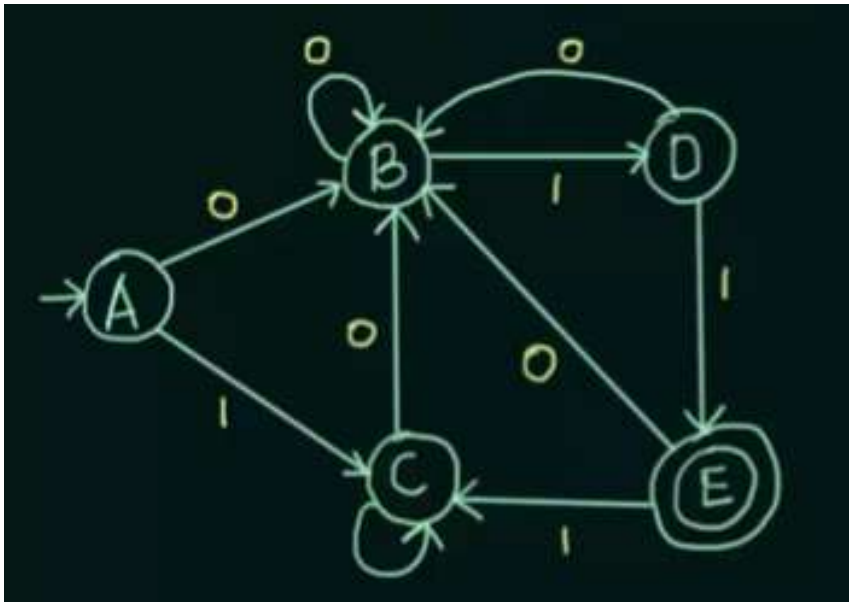
  - b*ab*|b*



- Set of strings over (a,b) which has exactly one a
  - b*ab*



Minimization of DFA



	0	1
A	B	C
B	B	D
C	B	C
D	B	E
E	B	C

Q→{A,B,C,D,E} q0=A, F=E, inputs={0,1}

0 – Equivalence → {A,B,C,D} {E}

1 – Equivalence →{A,B,C} {D}{E}

2 – Equivalence →{A,C}{B}{D}{E}

3 – Equivalence →{A,C}{B}{D}{E}

Minimization of DFA