Dolo-650

$$\overset{0}{\underset{}{}} \qquad \overset{1}{\underset{}{}}$$

$$q_1 \qquad q_2 \quad q_3 \qquad\qquad NF \qquad F$$
$$q_4 \qquad q_3 \quad q_5 \qquad\qquad F \qquad F$$

$$\overset{0}{\underset{}{}} \qquad \overset{1}{\underset{}{}}$$

$$q_3 \qquad q_4 \qquad q_3 \qquad\qquad NF \qquad F$$
$$q_5 \qquad q_2 \qquad q_5 \qquad\qquad NF \qquad F$$

$$(q_2, q_4) \text{ are equivalent.}$$

filling _____ following DFA using table
start state algorithm. The states C, f and I
are the final states.

δ	0	1
A	B	E
B	C	F
C	D	H
D	E	H
E	F	I
F	G	B
G	H	B
H	I	C
I	A	F

B	X							
C	X	X						
D		X	X					
		X	X					
E	X		X	X	X			
F	X	X	X	X	X			
G		X	X	X	X	X		
H	X		X	X		X	X	
	X	X		X	X		X	X

```
            O          1
   D     E      H            NF       NF
   G     F      I            NF       NF

            O          1
   D     E      H            NF       NF
   H     I      C            F        F

            O      1
   E     F      I            F        F
   G     H      B            NF       NF

            O      1
   E     F      I            F        F
   H     I      C            F  F     F  F

               O       1
   X  G     H       B         NF      NF
      H     I       C         F       F
```

Pairs
(A,D)   (A,G)   (D,G) → (A,D,G)
(B,H)   (B,E)   (E,H) → (B,H,E)
(C,F)   (C,I)   (F,I) → (E,F,I)
             (D,H) →   (D,H)

Notes:

```
            0        1
A       B       E        NF  NF
D       E       H        NF    NF

            0        1
A       B        F       NF   NF
G       H        B       NF   NF

            0        1
A       B        E       NF      NF
H       I        C       @F      @F

            0        1
B       C        F        F       F
D       F        H        NF    NF

            0        1
        B    C   F      F        F
        E    F   I      F        F

            0        1
    B     B      E       NF      NF
    G     H      B       NF      NF

            0        1
    C     D      H       NF      NF
    F     G      B       NF      NF

            0        1
    C     D      H       NF      NF
    I     A      E       NF      NF
```

Notes:

```
            0        1
    D     E      H       NF      NF
    E     F      I        F       F
```

start →(A, D, G) →$0, 1$→ (B, E, H)

0 from (B,E,H) to (A,D,G)

(C, f, I) with $0,1$
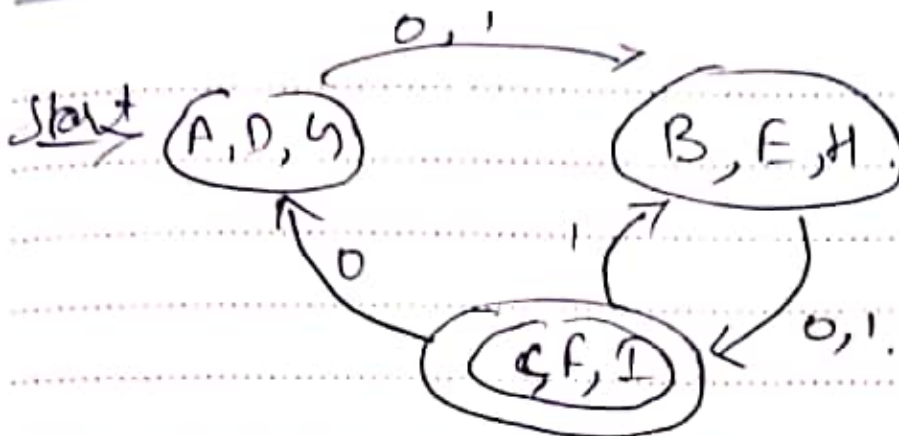
Consider the DFA given by the transition table.

	0	ϕ	1
→q_1	q_2		q_3
q_2	q_3		q_5
q_3	q_4		q_3
q_4	q_3		q_5
q_5	q_2		q_5

q_2 : ×

q_3 : × ×

q_4 : ×

q_5 : × × ×

  q_1 q_2 q_3 q_4

$(q_2 \quad q_4)$
$(q_3 \quad q_5)$

	0		1	
q_2	q_3	q_5	F	F
q_4	q_3	q_5	F	F

Notes:

the following DFA using table algorithm, where A is the ale ? The states C, f and I = final states.

0	1
B	E
C	f
D	H
E	H
F	I
G	B
H	B
I	C
A	E
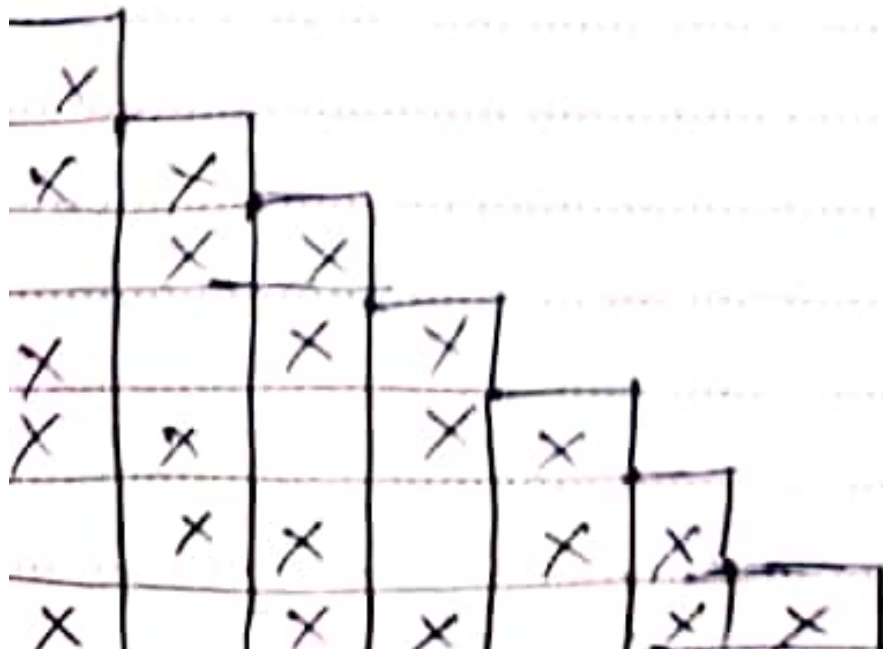
Step1 - cross combination of final
and non-final states.
comb of A & B

              0   1

A   B   E   (NF , NF)

B   C   F   (F , F)

A & D

               0   1

A   B   E   (NF, NF)

D   E   H   (NF, NF)

A & E.

               0   1

A   B   E   (NF , NF)

E   H   B   (F , F)

A & H

               0   1

A   B   E   (NF , NF)

H   I   C   (F , F)

               0   1

B   C   F

D   E   H   F   F

                                       NF   NF