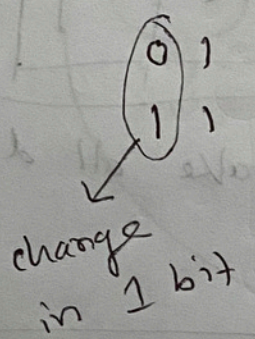
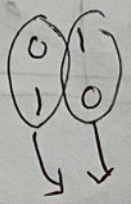
Slot-2

1) (a) The output values are marked within the state, not with the input values.
That's why it's "Moore" type FSM.

(b)



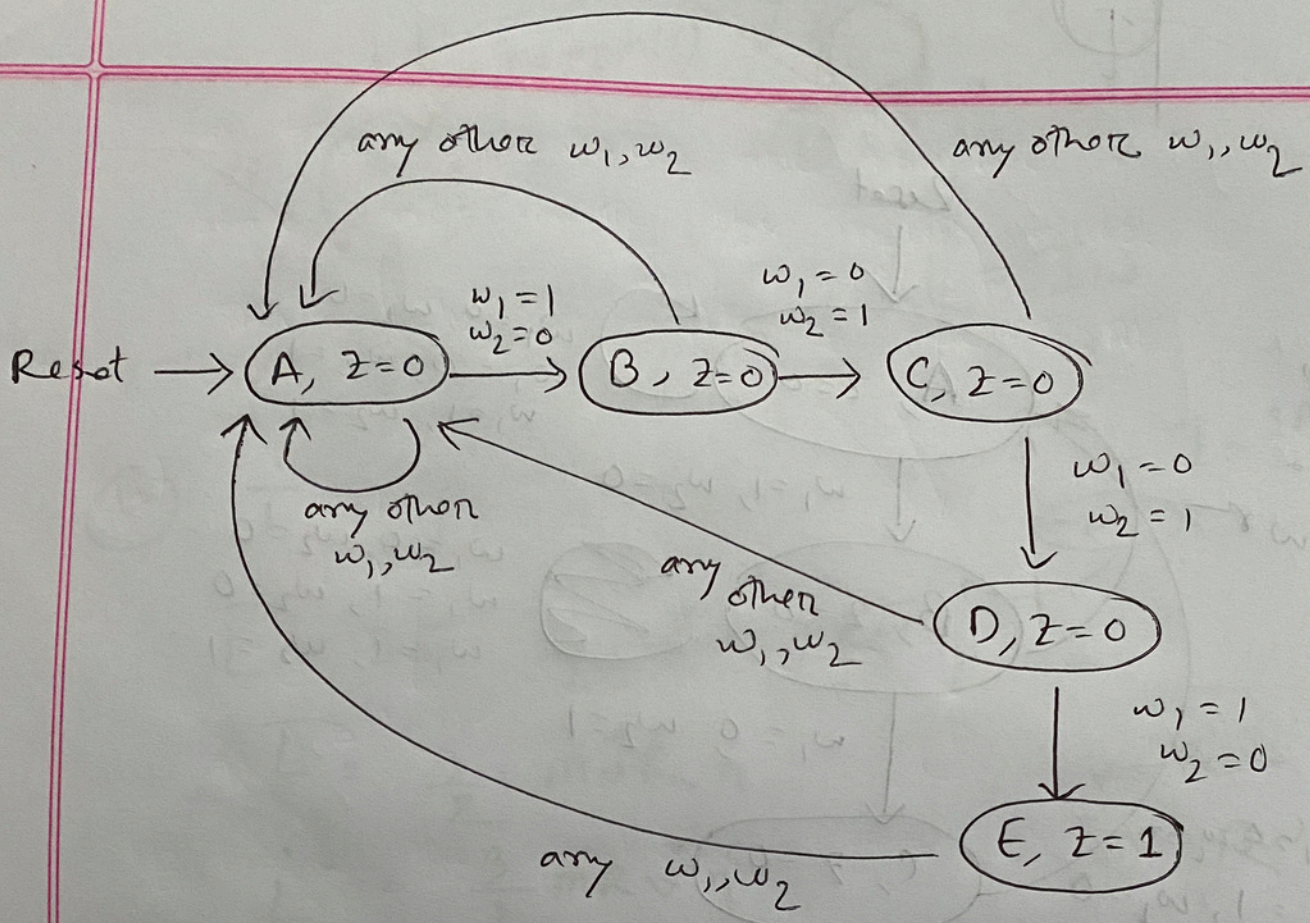
change in 1 bit



change in 2 bit

By using the first one, ~~when~~ when we try to use the K-map, our output expression and next state expressions will become easier.

(c) In both Mealy and Moore type, we go to a new state when there is a change in clock pulse. But, for Mealy type FSM, we can change the output even when the clock pulse has not changed, by changing only the input. That's why we need former states in Mealy type FSM.



State assigned table

Present state $y_3 y_2 y_1$	Next state $Y_3 Y_2 Y_1$				output z
	$w_1 w_2 = 00$	01	10	11	
A (000)	A	A	B	A	0
B (001)	A	C	A	A	0
C (011)	A	D	A	A	0
D (010)	A	A	E	A	0
E (110)	A	A	A	A	1

Z

y_3 \ $y_2 y_1$	00	01	11	10
0	0	0	0	0
1	d	d	d	1

take all d = '1'

$\therefore$ $z = y_3$