⑥

⇒ A Finite state machine is a mathematical model of computation used to design both computer programs and ~~mathematical~~ logic circuits.

The machine is in only one state at a time the state it is in at any given time is called the current state. It can change from one state to another when initiated by triggering event or condition, this is called transition.

FSM can operate in finitely states.

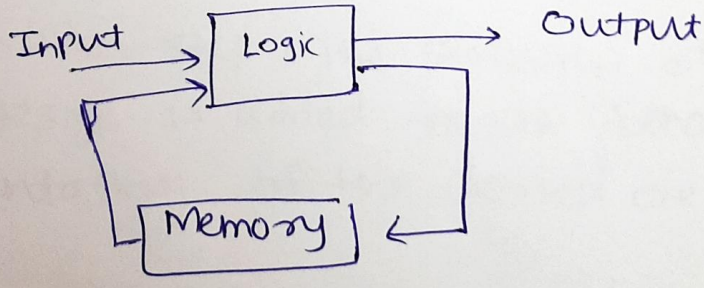
there are two types of FSM,

[1] Mealy state machine.

[2] Moore State Machine.

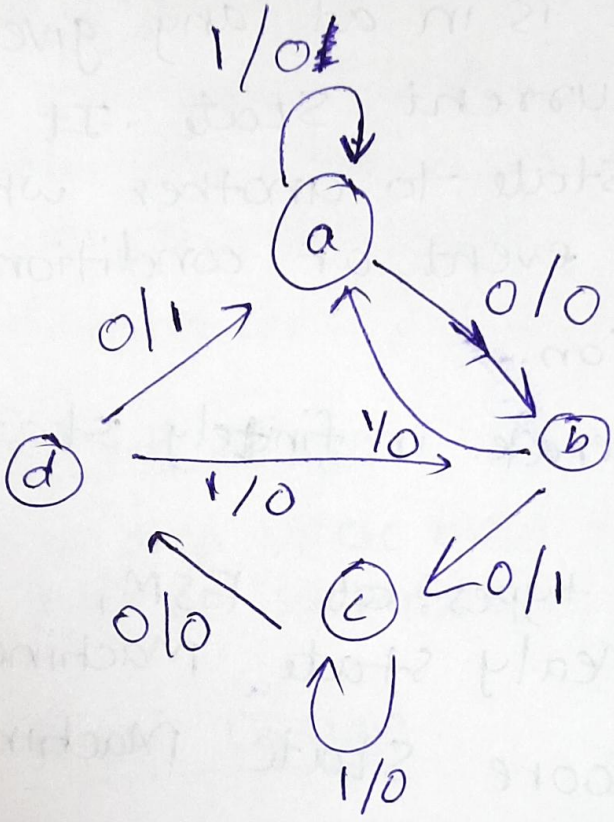
① Mealy state machine

In Mealy state machine output is the function of Input as well as current state.



ex.

Present state	Next state, output	
	$x=0$	$x=1$
a	b, 0	a, 0
b	c, 1	a, 0
c	d, 0	c, 0
d	a, 1	b, 0



As In Present state 'b', the output depends on input as well as state.