Mealy Machine to Moore Machine Conversion

Mealy machine for an input string of length ‘n’,

Transition table for Mealy machine.

PRESENT STATE	NEXT STATE			
	INPUT = 0		INPUT = 1	
	STATE	OUTPUT	STATE	OUTPUT
Q0	Q21	1	Q10	0
Q10	Q0	1	Q30	0
Q11	Q0	1	Q30	0
Q20	Q11	1	Q0	1
Q21	Q11	1	Q0	1
Q30	Q31	1	Q20	0
Q31	Q31	1	Q20	0

In above transition table,

Q0 is associated with output 1

Q1 is associated with output 0 and 1

So, let’s Q10 associated with output 0, and Q11 associated with output 1.

Q2 is associated with output 0 and 1

So, let’s Q20 associated with output 0, and Q21 associated with output 1.

Q3 is associated with output 0 and 1

So, let’s Q30 associated with output 0, and Q31 associated with output 1.

Transition table for Moore machine.

PRESENT STATE	NEXT STATE		OUTPUT
	INPUT = 0	INPUT = 1	
Q0	Q21	Q10	1
Q10	Q0	Q30	0
Q11	Q0	Q30	1
Q20	Q11	Q0	0
Q21	Q11	Q0	1
Q30	Q31	Q20	0
Q31	Q31	Q20	1

Transition diagram for Moore machine

Mealy to Moore conversion Hindi video

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