

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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