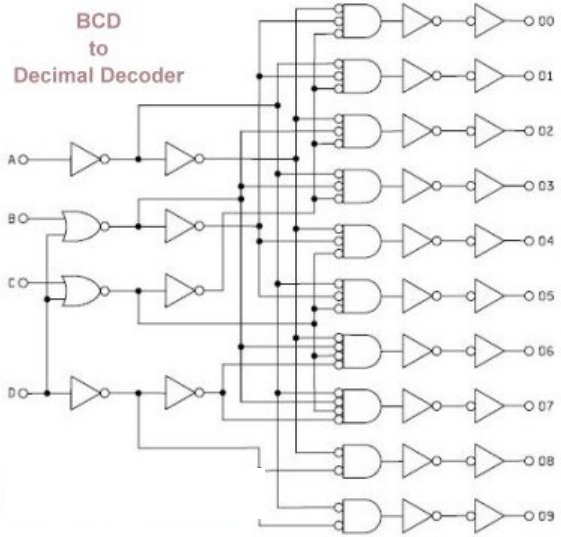
In Class Assignment #4 (9/25)

- **Design a BCD to decimal decoder using dataflow modeling**
  - Module: BCDtoDecimal, Input: BCDIn (4 bits), Output: DECOut (10 bits)
  - If the input is greater than 9 (4'b1001), the output will be 10'b11_1111_1111
  - Stimulus: Top, Please use named mapping to instantiate BCDtoDecimal
  - Apply the input from 0 to 15 and 0 again with a delay of 10
  - Submit DD04_StudentID.zip that includes source and screen capture to LMS
  - **Hint**: Conditional operator (? :)

BCD				Decimal									
A	B	C	D	D_9	D_8	D_7	D_6	D_5	D_4	D_3	D_2	D_1	D_0
0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	1	0	0	0	0	0	0	0	0	1	0
0	0	1	0	0	0	0	0	0	0	0	1	0	0
0	0	1	1	0	0	0	0	0	0	1	0	0	0
0	1	0	0	0	0	0	0	0	1	0	0	0	0
0	1	0	1	0	0	0	0	1	0	0	0	0	0
0	1	1	0	0	0	0	1	0	0	0	0	0	0
0	1	1	1	0	0	1	0	0	0	0	0	0	0
1	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	1	1	0	0	0	0	0	0	0	0	0

Truth Table



Schematic

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  0 BCDIn =  0 --> DECOut = 0000000001
 10 BCDIn =  1 --> DECOut = 0000000010
 20 BCDIn =  2 --> DECOut = 0000000100
 30 BCDIn =  3 --> DECOut = 0000001000
 40 BCDIn =  4 --> DECOut = 0000010000
 50 BCDIn =  5 --> DECOut = 0000100000
 60 BCDIn =  6 --> DECOut = 0001000000
 70 BCDIn =  7 --> DECOut = 0010000000
 80 BCDIn =  8 --> DECOut = 0100000000
 90 BCDIn =  9 --> DECOut = 1000000000
100 BCDIn = 10 --> DECOut = 1111111111
110 BCDIn = 11 --> DECOut = 1111111111
120 BCDIn = 12 --> DECOut = 1111111111
130 BCDIn = 13 --> DECOut = 1111111111
140 BCDIn = 14 --> DECOut = 1111111111
150 BCDIn = 15 --> DECOut = 1111111111
160 BCDIn =  0 --> DECOut = 0000000001
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Expected Outputs