Course: CSC 371 - Finite Automata

Topic: Unit 1 – Finite Automaton

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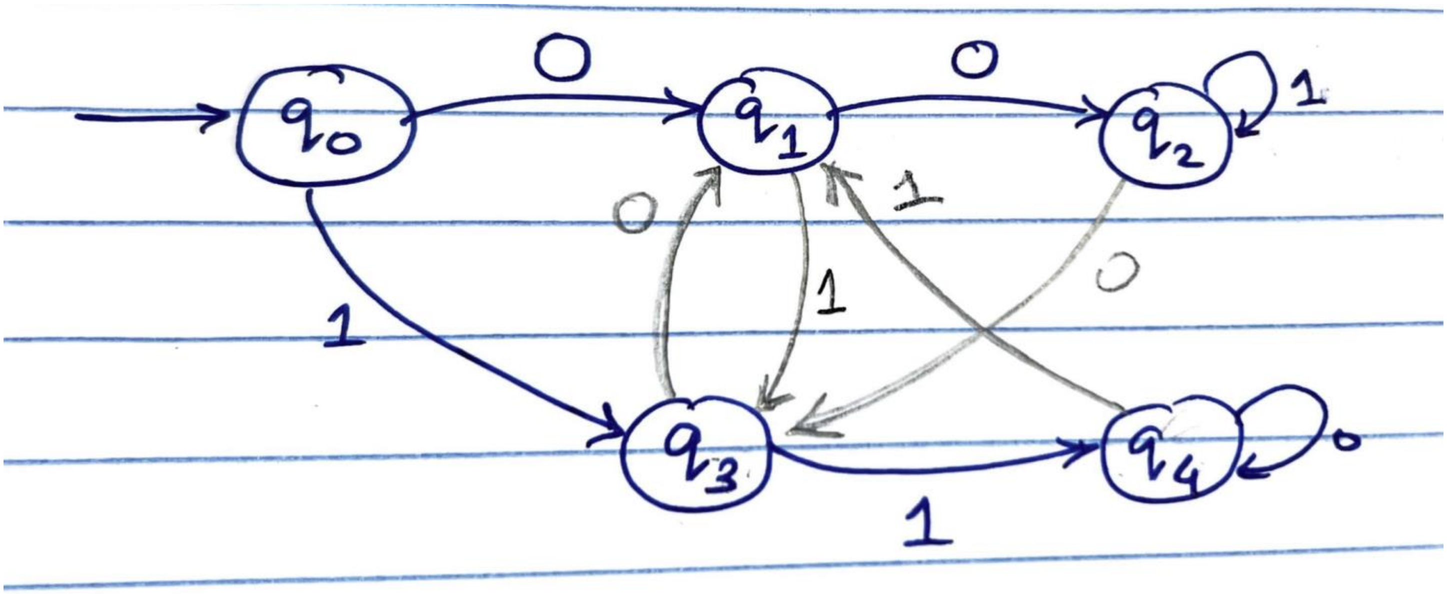
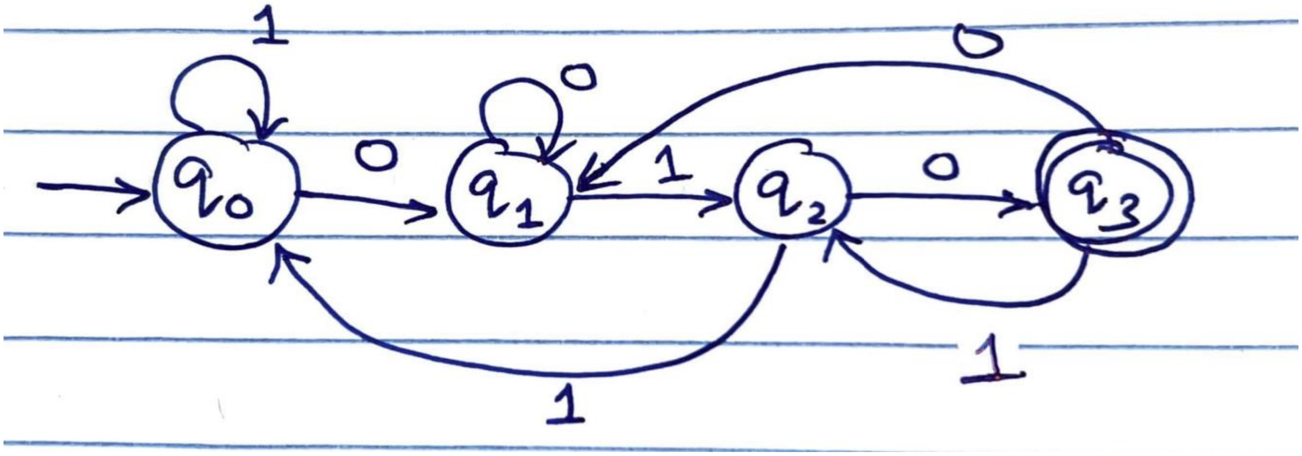
1. Draw a finite automate which accept 00 and 11 at the end of a string containing 0, 1 in it, e.g., 01010100 but not 000111010.

Answer:


q0
0
q1
0
q2
1
0
1
1
0
1
q3
1
q4
0

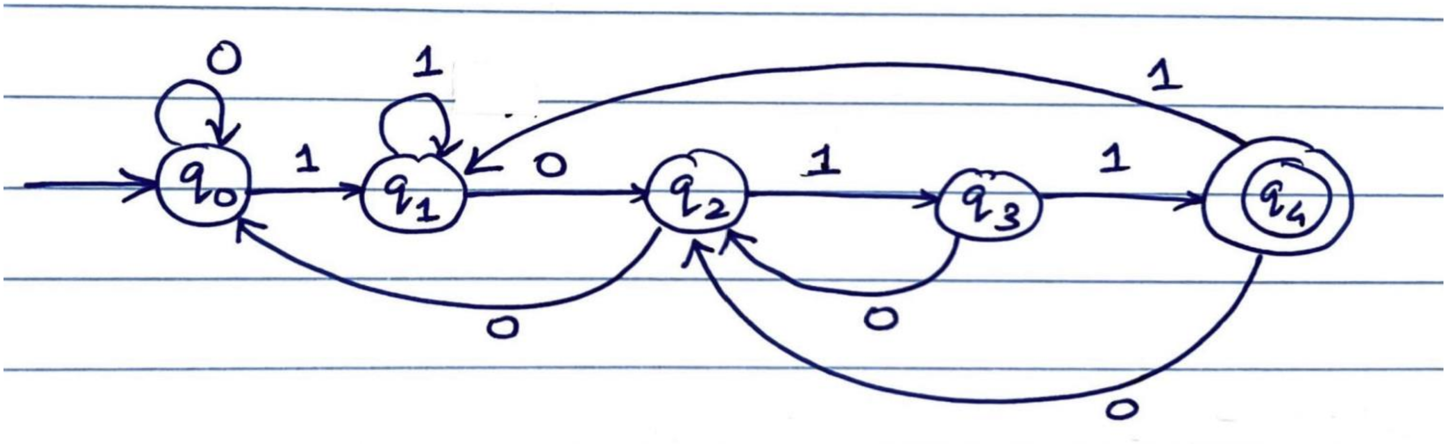
2. Draw a finite automate that ends in 010.

Answer:


1
0
0
q0
0
q1
1
q2
0
q3
1
1

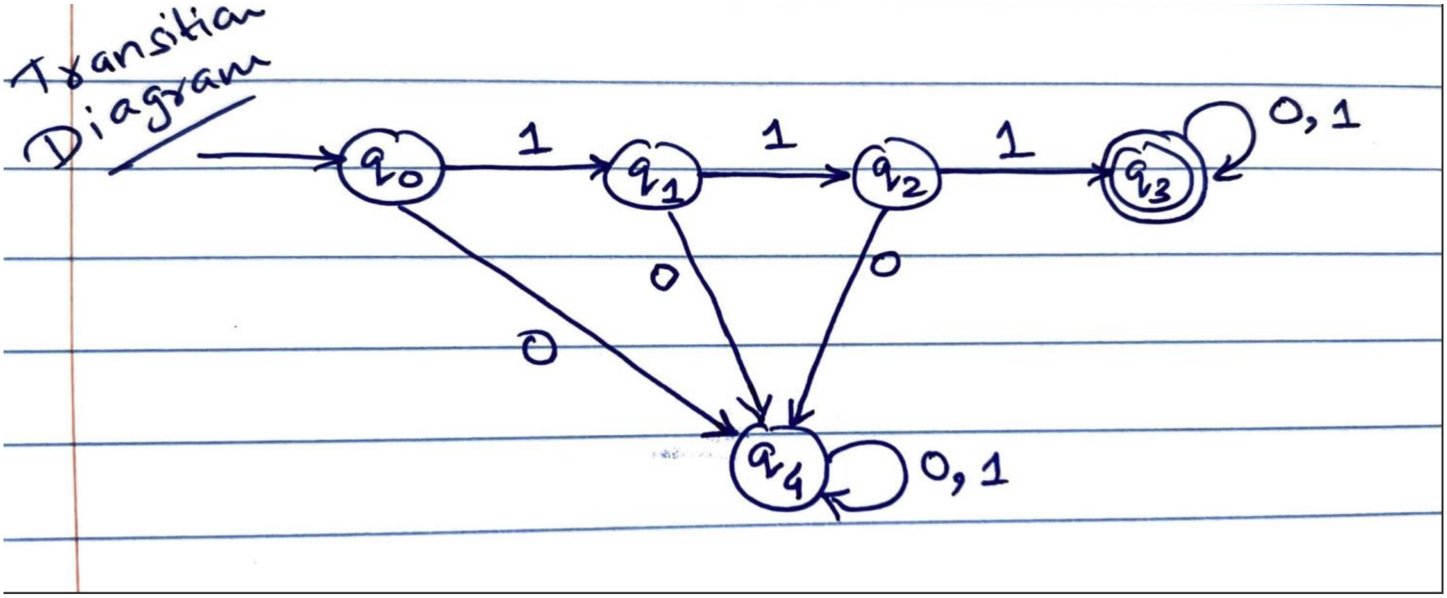
3. Draw a finite automate that ends in 1011.

Answer:


0
1
1
q0
1
q1
0
q2
1
q3
1
q4
0
0
0

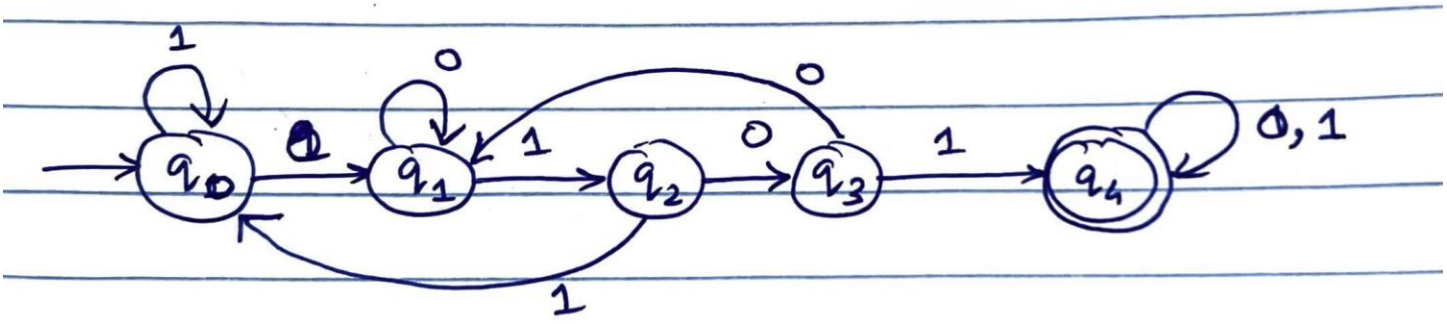
4. Draw a finite automate that starts with 111.

Answer:


Transition Diagram
q0
1
q1
1
q2
1
q3
0, 1
0
0
0
q4
0, 1

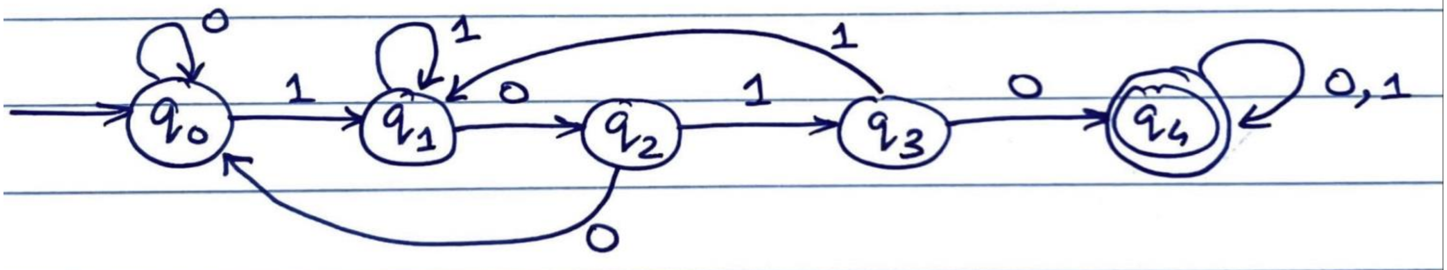
5. Draw a finite automate that has this string in 0101 somewhere in the stream.

Answer:


1
0
0
0
1
0
1
0, 1
q0
q1
q2
q3
q4
1

6. Draw a finite automate that has this string in 1010 somewhere in the stream.

Answer:


0
1
1
1
0
1
0
0, 1
q0
q1
q2
q3
q4
0