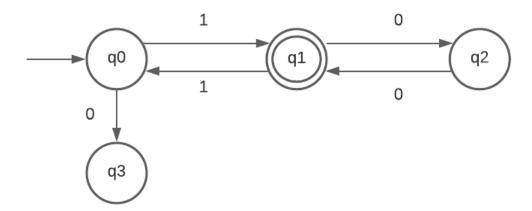
## **SEDA Group 1**

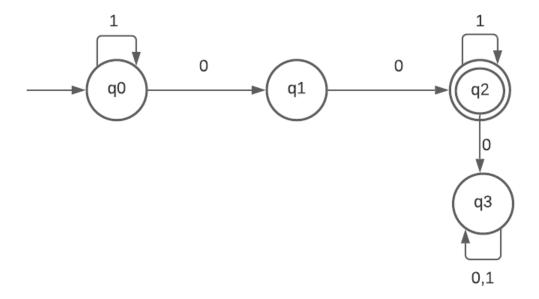
Manasi Patil Uma Thakur Chaitanya Patil Bhavin Patil

## **BLOG:** Solve 5 challenging problems on NFA, DFA

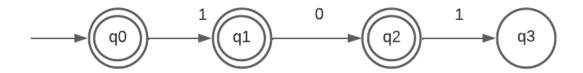
1. Draw FA for any string without an odd number of consecutive O's after an odd number of consecutive 1 's over the alphabet  $\{0,1\}$ 



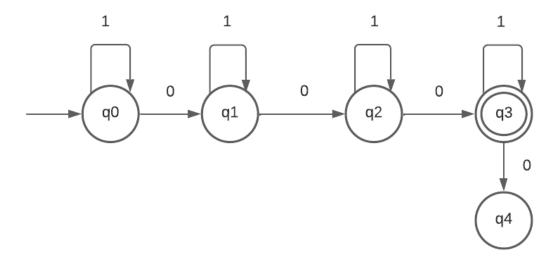
2. Draw DFA for any string containing exactly 2 consecutive O's over the alphabet {0, 1}.



3. Draw DFA for all strings that don't contain the substring 101



4. Draw DFA for all strings that contain exactly 3 zeros over  $\{0, 1\}$ .



5. Convert following NFA to its equivalent DFA

states	a	В	$\epsilon$
->q0	q2	-	q1
*q1	q0	-	-
q2	q1	{q2, q1}	-

## **DFA:**

states	A	В	C	
q0	q2	-	q1	
q1	q0	-	-	
q2	q1	q1q2	-	
q1q2	q0q1	q1q2	-	
q0q1	q0q2	-	-	
q1q2 q0q1 q0q2	q1q2	q1q2	-	