

**DFA:**

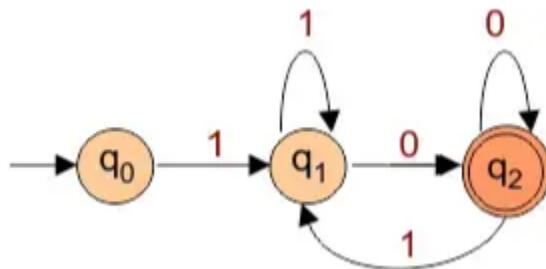
1. Draw a DFA for the language accepting strings starting with '101' over input alphabets  $\Sigma = \{0, 1\}$
2. Construct a DFA that accepts a language L over input alphabets  $\Sigma = \{a, b\}$  such that L is the set of all strings starting with 'aa' or 'bb'.
3. Draw a DFA for the language accepting strings ending with '011' over input alphabets  $\Sigma = \{0, 1\}$  ? Then draw the transition diagram for the DFA.

**NFA:**

1. Design a NFA for the transition table as given below:

Present State	0	1
$\rightarrow q_0$	$q_0, q_1$	$q_0, q_2$
$q_1$	$q_3$	$\epsilon$
$q_2$	$q_2, q_3$	$q_3$
$\rightarrow q_3$	$q_3$	$q_3$

2. Design an NFA with  $\Sigma = \{0, 1\}$  accepts all string in which the third symbol from the right end is always 0.
3. Construct an NFA with  $\Sigma = \{0, 1\}$ , where each string must contain either "01" or "10".



4. Draw the Transition Table for the above NFA