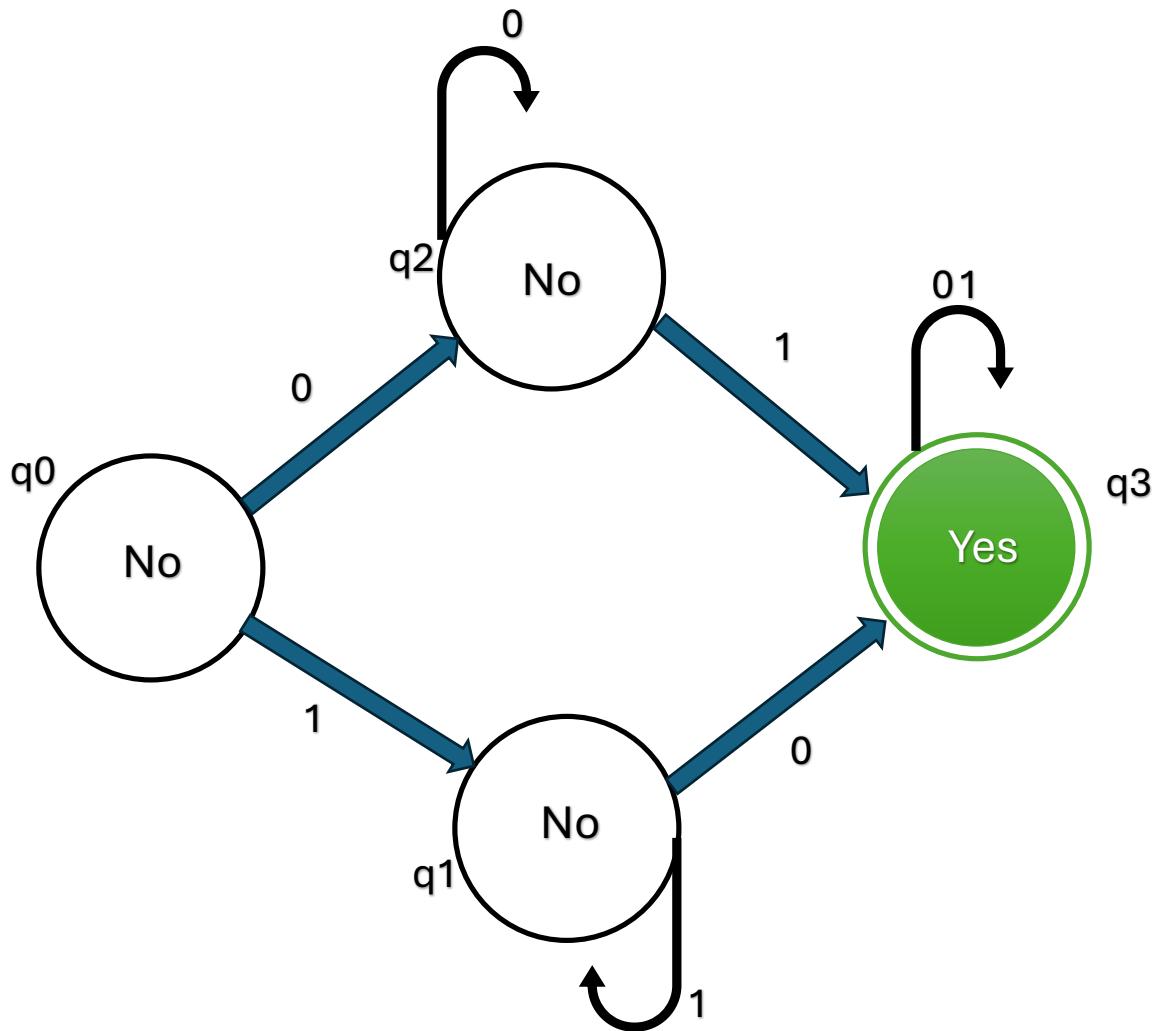


Draw a DFA for bitstrings with at least one 0 and at least one 1. You can use Paint, PowerPoint, or any software on your computer that allows you to draw. Upload your drawing for this question.



Explanation:

- $q_0 \rightarrow$ Start state.
 - Input 0 \rightarrow go to q_2 (found a 0)
 - Input 1 \rightarrow go to q_1 (found a 1)
- $q_1 \rightarrow$ Seen 1, waiting for a 0.
 - Input 0 \rightarrow go to $q_3 \rightarrow$ Accept.
 - Input 1 \rightarrow go to q_1
- $q_2 \rightarrow$ Seen 0, waiting for a 1.
 - Input 1 \rightarrow go to $q_3 \rightarrow$ Accept.
 - Input 0 \rightarrow go to q_2
- $q_3 \rightarrow$ Accepting state (both digits seen).
 - Any more 0s or 1s keep it in q_3 .