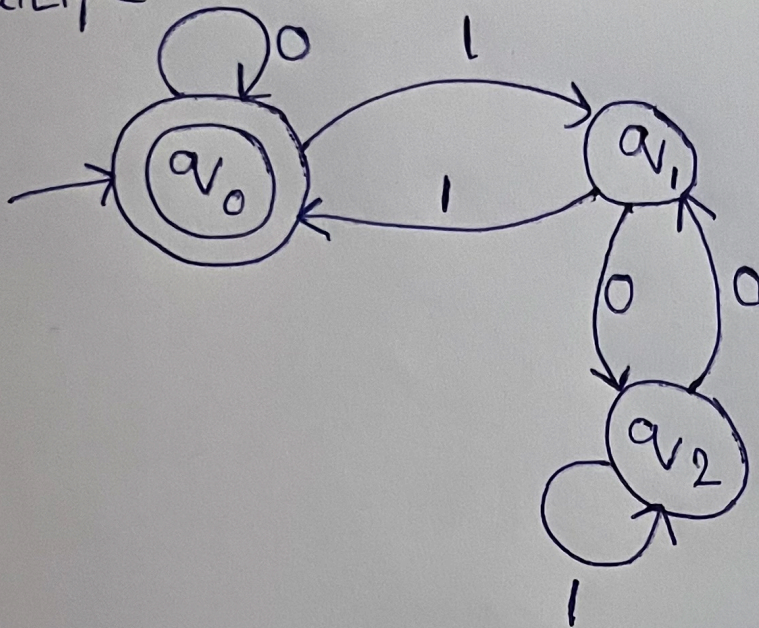


In-Class Assignment

- 1) DFA to accept binary strings that are multiple of 3.



- 2) $L_k = \{ w \mid k^{\text{th}} \text{ character from end of } w \text{ is } 1 \}$

the language of L_k when $k=2$ is

$$L_2 = \{ 10, 11, 010, 011, 110, 111, 1010, 0010, 0011, 1011, \dots \}$$

the language of L_k when $k=3$ is

$$L_3 = \{ 100, 101, 110, 111, 0100, 1100, 0101, 1101, 0110, 1110, 0111, 1111, \dots \}$$