**Title: Finite Automata**

1. Design a DFA that accepts strings over {a, b} ending with 'ab'.
2. Design a DFA that accepts strings over {0, 1} containing an even number of 0s.
3. Design a DFA that accepts strings over {a, b} where the number of 'a's is divisible by 3.
4. Design a DFA that accepts strings over {a, b} starting with 'a' and ending with 'b'.
5. Design a DFA that accepts binary strings divisible by 3.
6. Design a DFA that accepts strings over {a, b} containing exactly two 'a's.
7. Design a DFA that accepts strings over {0, 1} where each '0' is followed by at least one '1'.
8. Design a DFA that accepts strings over {a, b} that do not contain the substring 'abb'.
9. Design a DFA that accepts binary strings that contain the substring '101'.
10. Design a DFA that accepts strings over {a, b} containing an even number of 'b's.
11. Design a DFA that accepts binary strings where the number of 1s is odd.
12. Design a DFA that accepts strings over {a, b} that contain 'aaa' as a substring.
13. Design a DFA that accepts binary strings that do not contain '000' as a substring.
14. Design a DFA that accepts binary strings with no more than one '0'.
15. Design a DFA that accepts strings over {a, b} that start and end with different characters.
16. Design a DFA that accepts strings over {a, b} containing at least one 'a'.
17. Design a DFA that accepts binary strings that start with '1' and end with '0'.
18. Design a DFA that accepts binary strings that do not contain the substring '11'.
19. Design a DFA that accepts strings over {a, b} containing the substring 'bab'.
20. Design a DFA that accepts binary strings that start and end with the same character.
21. Design a DFA that accepts strings over {a, b} that do not start with 'b'.
22. Design a DFA that accepts binary strings where the third symbol from the end is '1'.
23. Design a DFA that accepts strings over {a, b} that contain 'aba' as a substring.
24. Design a DFA that accepts strings over {a, b} where the total number of 'b's is divisible by 4.
25. Design a DFA that accepts binary strings that start with '01'.
26. Design a DFA that accepts strings over {a, b} where the second character is 'b'.
27. Design a DFA that accepts strings over {a, b} where every 'a' is followed by 'b'.
28. Design a DFA that accepts strings over {a, b} that do not contain 'ba'.
29. Design a DFA that accepts binary strings where the number of 0s is odd.
30. Design a DFA that accepts strings over {a, b} that do not end with 'aa'.
31. Design a DFA that accepts strings over {a, b} where the third character is 'a'.
32. Design a DFA that accepts binary strings not divisible by 3.