1. Easy-Level String Questions

(Common in TCS, Infosys, Cognizant initial rounds)

1. **Reverse a String**
   - In-place reversal using two pointers or recursion 611.
2. **Check for Palindrome**
   - Compare characters from start and end 68.
3. **Remove Vowels from a String**
   - Filter characters using a hash set of vowels 6.
4. **First Non-Repeating Character**
   - Use a frequency map or array 11.
5. **Count Vowels and Consonants**
   - Iterate and classify characters 11.
6. **Check for Anagrams**
   - Compare sorted strings or use frequency counting 68.
7. **Longest Common Prefix**
   - Vertical scanning or divide-and-conquer 6.
8. **String to Integer (atoi)**
   - Handle edge cases (whitespace, signs, overflow) 6.
9. **Valid Parentheses**
   - Stack-based validation 6.
10. **Defanging an IP Address**
    - Replace . with [.] 6.

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2. Medium-Level String Questions

(Common in Amazon, Visa, Google phone screens)

1. **Longest Substring Without Repeating Characters**
   - Sliding window technique 68.
2. **Longest Palindromic Substring**

- Expand around center or dynamic programming 611.

3. **Group Anagrams**
    - Hash map with sorted strings as keys 6.
4. **String to Integer (atoi)**
    - Handle edge cases rigorously 6.
5. **Minimum Window Substring**
    - Sliding window with frequency maps 610.
6. **Decode Ways**
    - Dynamic programming to count valid decodings 6.
7. **Word Break**
    - DP or backtracking to check dictionary matches 6.
8. **ZigZag Conversion**
    - Simulate row-wise traversal 6.
9. **Multiply Strings**
    - Digit-by-digit multiplication (like manual math) 6.
10. **Find All Anagrams in a String**
    - Sliding window with fixed-size hash comparison 6.

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3. Hard-Level String Questions

(Google, Amazon onsite rounds)

1. **Regular Expression Matching**
    - DP with pattern and string matching 610.
2. **Edit Distance**
    - DP to compute minimum operations (insert/delete/replace) 610.
3. **Minimum Window Subsequence**
    - Sliding window with dynamic programming 10.
4. **Serialize and Deserialize Binary Tree**
    - String representation of trees 6.

5. **Word Ladder II**
    - BFS with backtracking to find shortest transformation sequence