**Recursion**

**💻 Coding Questions (Basic to Advanced)**

**✅ Basic Level**

1. Print numbers from 1 to N using recursion
2. Print numbers from N to 1 using recursion
3. Find factorial of a number
4. Find the nth Fibonacci number
5. Sum of first N natural numbers
6. Check if a string is palindrome using recursion

**✅ Intermediate Level**

1. Calculate power (x^n) using recursion
2. Reverse a string using recursion
3. Find GCD (Greatest Common Divisor) using recursion
4. Find sum of digits of a number
5. Count digits in a number using recursion
6. Check if an array is sorted (recursively)

**✅ Advanced Level**

1. Find all subsets of a string (or array)
2. Generate all permutations of a string
3. Solve Tower of Hanoi problem
4. Implement binary search using recursion
5. Print all paths from top-left to bottom-right in a matrix
6. Recursive solution for N-Queens problem
7. Solve Maze problem using recursion (Backtracking)
8. Find all combinations that sum to a target (similar to subset sum)

**🎓 Bonus for Interviews**

* Write recursive code with minimal variables and parameters
* Explain dry run of a recursive function using stack tracing
* Identify bugs in a faulty recursive implementation