Data Structures & Algorithms : Java Programs

1. Strings/Arrays
   - Anagrams
   - Isomorphic
   - Palindrome
   - Permutation
   - Reverse characters
   - Reverse words
   - Reverse word positions
   - Reverse vowels
   - String to int
   - Word pattern
   - Merge sorted arrays
   - Palindrome permutation
   - Median of two sorted arrays
   - Minimum in rotated sorted array
   - Replace pattern
   - Rotate array
   - Matching words from two strings
   - Remove duplicates
   - Kth largest element in array
   - Array intersection
   - Check if a pattern occurs in the same order in a string
   - Remove stop words
2. Linked Lists
   - Traverse and print nodes
   - Reverse recursive
   - Reverse iterative
   - Detect loop
   - Rotate list by k
   - Get Kth from last element
   - Get a given node/ element
   - Odd even linked list
   - Get middle element
   - Swap nodes
   - Palindrome list
   - Remove duplicates from sorted list
   - Insert node at head/tail/given position
   - Compare 2 lists
   - Merge sorted lists

3. Trees
    - Balanced binary tree
    - Inorder traversal iterative
    - Inorder traversal recursive
    - Preorder/Postorder traversal
    - Is a BST
    - Convert sorted array to BST
    - Array pairs with a given difference
4. Sorting
    - Bubble sort
    - Insertion sort
    - Selection sort
    - Quicksort
    - Merge sort
5. Searching
    - Binary search
    - DFS
    - BFS
    - Heck if path exists between two nodes in directed graph
    - Number of pairs in array, given their sum
    - Longest common prefix
    - Longest increasing subsequence
    - Max sum subarray
    - Minimum difference
    - Maximum profit
    - Search element in rotated sorted array
6. Stacks/Queues
    - Stack/Queue implementation
    - Stack using 2 queues
    - Queue using 2 stacks
    - Balanced parenthesis
7. Collections
    - Sort hashmap
    - Count frequency of words
    - Group anagrams together
    - Contains nearby duplicate
    - Remove/find duplicate
    - Find first non - repeating character
    - Top K frequent elements
8. Miscellaneous (Mathematics/Bit manipulation)
    - Reverse integer
    - Happy number
    - Compare version numbers

- Binary addition
- Numbers with non-repeating digits
- Calculate square root
- Calculate power of two
- Count number of trailing zeros in factorial
- Angle between hour and minute hand in analog clock
- Pascal's triangle
- Sum of triplets equals 0
- FizzBuzz
- Count primes
- Add without + operator
- Tic-tac-toe game
- Fibonacci number/series