**NAMAN’S SDE SHEET**

# How to approach?

1. Read question, and **constraints** properly. Try to understand what the question is asking using sample test case.
2. Think for a solution, **use pen & paper**.
3. Don’t stay idle, if you are not able to think of a solution try to take a hint in 10 minutes. Don’t waste your time.
4. **Maximum time you should give to a question: 30-40 mins(solution) + 10-20 mins(code)**

**NOTE: Using hints is not a bad thing!**

Reference: www.cp-algorithms.com

# Time & Space Complexity [1 Day]

# Arrays [2 Days: 25 questions]

1. [First Missing Positive (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/first-missing-positive_699946?topList=top-array-coding-interview-questions)
2. [Majority Element - LeetCode](https://leetcode.com/problems/majority-element/)
3. [Majority Element II - LeetCode](https://leetcode.com/problems/majority-element-ii/)
4. [Pascal's Triangle - LeetCode](https://leetcode.com/problems/pascals-triangle/)
5. [Pascal's Triangle II - LeetCode](https://leetcode.com/problems/pascals-triangle-ii/)
6. [Move Zeroes - LeetCode](https://leetcode.com/problems/move-zeroes/)
7. [Duplicate In Array (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/duplicate-in-array_893397?topList=top-array-coding-interview-questions)
8. [Sort Colors - LeetCode](https://leetcode.com/problems/sort-colors/)
9. [Array Partition I - LeetCode](https://leetcode.com/problems/array-partition-i/)
10. [Rotate Image - LeetCode](https://leetcode.com/problems/rotate-image/)
11. [3Sum - LeetCode](https://leetcode.com/problems/3sum/)
12. [Minimum Platforms | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/minimum-platforms-1587115620/1)
13. [Next Permutation | Interviewbit](https://www.interviewbit.com/problems/next-permutation/)
14. [Best Time to Buy and Sell Stock - LeetCode](https://leetcode.com/problems/best-time-to-buy-and-sell-stock/)
15. [Best Time to Buy and Sell Stock II - LeetCode](https://leetcode.com/problems/best-time-to-buy-and-sell-stock-ii/)
16. [Merge Overlapping Intervals | Interviewbit](https://www.interviewbit.com/problems/merge-overlapping-intervals/)
17. [Minimum Time Visiting All Points - LeetCode](https://leetcode.com/problems/minimum-time-visiting-all-points/)
18. [Chocolate Distribution Problem | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/chocolate-distribution-problem3825/1)
19. [INVERSIONS | Interviewbit](https://www.interviewbit.com/problems/inversions/)
20. [Reverse Pairs - LeetCode](https://leetcode.com/problems/reverse-pairs/)
21. [Longest Common Subsequence - LeetCode](https://leetcode.com/problems/longest-common-subsequence/)
22. [Longest Subarray Zero Sum (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/longest-subset-zero-sum_920321?topList=top-array-coding-interview-questions)
23. [Heaters - LeetCode](https://leetcode.com/problems/heaters/)
24. [Count distinct Bitwise OR of all subarrays (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/count-distinct-bitwise-or-of-all-subarrays_893104?topList=top-array-coding-interview-questions)
25. [Count all sub-arrays having sum divisible by k (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/count-all-sub-arrays-having-sum-divisible-by-k_973254?topList=top-array-coding-interview-questions)
26. [Count Distinct Elements In Every Window (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/count-distinct-elements-in-every-window_980530?topList=top-array-coding-interview-questions)
27. [Container With Most Water (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/container-with-most-water_873860?topList=top-array-coding-interview-questions)
28. [Count Distinct Element in Every K Size Window (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/count-distinct-element-in-every-k-size-window_920336?topList=top-array-coding-interview-questions)
29. [Distinct Subsequences (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/distinct-subsequences_799558?topList=top-array-coding-interview-questions)
30. [Trapping Rain Water (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/trapping-rainwater_630519?topList=top-array-coding-interview-questions)
31. [Maximum Subarray Sum (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/maximum-subarray-sum_630526?topList=top-array-coding-interview-questions)
32. [Maximum Sum Square SubMatrix | Interviewbit](https://www.interviewbit.com/problems/maximum-sum-square-submatrix/)

# Linked Lists [2 Days: 16 questions]

1. [Reverse Linked List (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/reverse-the-singly-linked-list_799897)
2. [Sum of two numbers represented as arrays | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/sum-of-two-numbers-represented-as-arrays3110/1/)
3. [Middle Of Linked List (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/middle-of-linked-list_973250)
4. [Merge Two Sorted Linked Lists (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/merge-two-sorted-linked-lists_800332)
5. [Sort List - LeetCode](https://leetcode.com/problems/sort-list/)
6. [Kth Node From Middle | Interviewbit](https://www.interviewbit.com/problems/kth-node-from-middle/)
7. [Palindrome Linked List (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/palindrom-linked-list_799352)
8. [Reverse Nodes in k-Group - LeetCode](https://leetcode.com/problems/reverse-nodes-in-k-group/)
9. [Remove Nth Node from List End | Interviewbit](https://www.interviewbit.com/problems/remove-nth-node-from-list-end/)
10. [Count Inversions - ll (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/count-inversion_763408)
11. [Remove Duplicates from Sorted List | Interviewbit](https://www.interviewbit.com/problems/remove-duplicates-from-sorted-list/)
12. [Cycle Detection in a Singly Linked List (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/cycle-detection-in-a-singly-linked-list_628974)
13. [Detect the first node of the loop (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/detect-the-first-node-of-the-loop_1112628)
14. [Detect and Remove Loop (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/interview-shuriken-42-detect-and-remove-loop_241049)
15. [Swap List Nodes in pairs | Interviewbit](https://www.interviewbit.com/problems/swap-list-nodes-in-pairs/)
16. [Delete Node In A Linked List (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/1105578)
17. [Flatten A Linked List (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/1112655?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)

# Stacks & Queues [1 Day: 10 questions]

1. [Implement a Queue (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/2099908?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
2. [Implement Stack using Queues - LeetCode](https://leetcode.com/problems/implement-stack-using-queues/)
3. [Implement Queue using Stacks - LeetCode](https://leetcode.com/problems/implement-queue-using-stacks/)
4. [Design a stack that supports getMin() in O(1) time and O(1) extra space (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/design-a-stack-that-supports-getmin-in-o-1-time-and-o-1-extra-space_842465)
5. [Valid Parentheses - LeetCode](https://leetcode.com/problems/valid-parentheses/)
6. [Deque (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/deque_1170059)
7. [Two Stacks (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/two-stacks_983634)
8. [Min Stack - LeetCode](https://leetcode.com/problems/min-stack/)
9. [LRU Cache Implementation (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/lru-cache-implementation_670276)
10. [Next Greater Element (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/next-greater-element_799354)
11. [Largest rectangle in a histogram (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/largest-rectangle-in-a-histogram_1058184)
12. [Rotting Oranges - LeetCode](https://leetcode.com/problems/rotting-oranges/)
13. [Maximum In Sliding Windows Of Size K (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/980226?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
14. [Span of Ninja Coin (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/span-of-ninja-coin_1475049?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
15. [The Celebrity Problem (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/the-celebrity-problem_982769?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
16. [First non-repeating character in a stream | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream1216/1)

# Strings [2 Days: 20 questions]

1. [Beautiful String (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/beautiful-string_1115625)
2. [Form a palindrome | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/form-a-palindrome1455/1)
3. [Longest Palindromic Substring - LeetCode](https://leetcode.com/problems/longest-palindromic-substring/)
4. [Longest Palindromic Subsequence - LeetCode](https://leetcode.com/problems/longest-palindromic-subsequence/)
5. [Design a tiny URL or URL shortener | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/design-a-tiny-url-or-url-shortener2031/1)
6. [Longest Distinct characters in string | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/longest-distinct-characters-in-string5848/1)
7. [Factorial Of Large Number (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/factorial-of-a-large-number_1115471)
8. [Longest Common Prefix (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/2090383)
9. [Implement Atoi Function (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/981270)
10. [Permutations of a given string | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/permutations-of-a-given-string2041/1)
11. [Repeated String Match - LeetCode](https://leetcode.com/problems/repeated-string-match/)
12. [Longest Substring Without Repeating Characters - LeetCode](https://leetcode.com/problems/longest-substring-without-repeating-characters/)
13. [Smallest window in a string containing all the characters of another string | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/smallest-window-in-a-string-containing-all-the-characters-of-another-string-1587115621/1)
14. [Edit Distance - LeetCode](https://leetcode.com/problems/edit-distance/)
15. [Count Distinct Substrings (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/count-distinct-substrings_985292)
16. [Alien dictionary (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/alien-dictionary_630423)
17. [Wildcard Pattern Matching (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/wildcard-pattern-matching_701650)
18. [Bulls and Cows | Interviewbit](https://www.interviewbit.com/problems/bulls-and-cows/)
19. [Serialize | Interviewbit](https://www.interviewbit.com/problems/serialize/)
20. [Most frequent word in an array of strings | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/most-frequent-word-in-an-array-of-strings3528/1)

# Recursion & Backtracking [1 Day: 10 Problem]

1. [Subsets - LeetCode](https://leetcode.com/problems/subsets/)
2. [Subsets II - LeetCode](https://leetcode.com/problems/subsets-ii/)
3. [Return Subsets Sum to K (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/759331?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
4. [Combination Sum - LeetCode](https://leetcode.com/problems/combination-sum/)
5. [Combination Sum II - LeetCode](https://leetcode.com/problems/combination-sum-ii/)
6. [Palindrome Partitioning - LeetCode](https://leetcode.com/problems/palindrome-partitioning/)
7. [Rat In a Maze All Paths (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/rat-in-a-maze-all-paths_758966)
8. [Tower of Hanoi (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/tower-of-hanoi_981323)
9. [Generate IP Addresses | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/generate-ip-addresses/1)
10. [Sudoku Solver (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/sudoku-solver_699919)
11. [N Queens (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/n-queens_759332)
12. [Flood fill Algorithm | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/flood-fill-algorithm1856/1)
13. [Permutations - LeetCode](https://leetcode.com/problems/permutations/)

# Hashing [1 Day: 12 Problem]

1. [Buddy Strings - LeetCode](https://leetcode.com/problems/buddy-strings/)
2. [Intersection of Two Arrays - LeetCode](https://leetcode.com/problems/intersection-of-two-arrays/)
3. [Pair Sum (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/pair-sum_697295)
4. [Longest Subarray Length | Interviewbit](https://www.interviewbit.com/problems/longest-subarray-length/)
5. [4 Sum | Interviewbit](https://www.interviewbit.com/problems/4-sum/)
6. [Bursting Balloons (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/bursting-balloons_701653)
7. [Subarray with given XOR | Interviewbit](https://www.interviewbit.com/problems/subarray-with-given-xor/)
8. [Window String | Interviewbit](https://www.interviewbit.com/problems/window-string/)
9. [Anagrams | Interviewbit](https://www.interviewbit.com/problems/anagrams/)
10. [Top K Frequent Elements - LeetCode](https://leetcode.com/problems/top-k-frequent-elements/)
11. [Pairs With Given Xor | Interviewbit](https://www.interviewbit.com/problems/pairs-with-given-xor/)
12. [Longest Word (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/longest-word-made-from-other-words_1229401)

# Greedy [1 Days: 10 questions]

1. [Candies (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/candies_893290)
2. [Find Pair With Smallest Difference (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/smallest-difference-pair-of-values-from-two-unsorted-arrays_1199177)
3. [Highest Product | Interviewbit](https://www.interviewbit.com/problems/highest-product/)
4. [Activity Selection | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/activity-selection-1587115620/1)
5. [Problem - 1440B - Codeforces](https://codeforces.com/problemset/problem/1440/B)
6. [Bulbs | Interviewbit](https://www.interviewbit.com/problems/interview-questions/)
7. [Problem - 1615B - Codeforces](https://codeforces.com/problemset/problem/1615/B)
8. [Meeting rooms | Interviewbit](https://www.interviewbit.com/problems/meeting-rooms/)
9. [N meetings in one room | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/n-meetings-in-one-room-1587115620/1)
10. [Page Faults in LRU | Practice | GeeksforGeeks](https://practice.geeksforgeeks.org/problems/page-faults-in-lru5603/1)
11. [Disjoint Intervals | Interviewbit](https://www.interviewbit.com/problems/disjoint-intervals/)
12. [Valid Palindrome II - LeetCode](https://leetcode.com/problems/valid-palindrome-ii/)
13. [Problem - 1492B - Codeforces](https://codeforces.com/problemset/problem/1492/B)
14. [Problem - 1485A - Codeforces](https://codeforces.com/problemset/problem/1485/A)
15. [Problem - 1473A - Codeforces](https://codeforces.com/problemset/problem/1473/A)

# Math & Number Theory [1 Day: 10 Questions]

1. [Prime Sum | Interviewbit](https://www.interviewbit.com/problems/prime-sum/)
2. [Trailing Zeros in Factorial (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/trailing-zeros-in-factorial_840697)
3. [Armstrong Number | Interviewbit](https://www.interviewbit.com/problems/armstrong-number/)
4. [Palindrome Integer | Interviewbit](https://www.interviewbit.com/problems/palindrome-integer/)
5. [Jumping Numbers (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/jumping-numbers_1069220)
6. [Arranging Coins - LeetCode](https://leetcode.com/problems/arranging-coins/)
7. [Excel Column Number | Interviewbit](https://www.interviewbit.com/problems/excel-column-number/)
8. [Max GCD Pair (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/max-gcd-pair_842786)
9. [Bulb Switcher - LeetCode](https://leetcode.com/problems/bulb-switcher/)
10. [Maximum Points On Straight Line (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/maximum-points-on-straight-line_1092972)
11. [Super Ugly Number - LeetCode](https://leetcode.com/problems/super-ugly-number/)
12. [Problem - 1658B - Codeforces](https://codeforces.com/problemset/problem/1658/B)
13. [Problem - 1618D - Codeforces](https://codeforces.com/problemset/problem/1618/D)
14. [Problem - 1617C - Codeforces](https://codeforces.com/problemset/problem/1617/C)
15. [Problem - 1603A - Codeforces](https://codeforces.com/problemset/problem/1603/A)

# Binary Search [1 Day: 10 questions]

1. [Nth Root Of M (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/1062679?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
2. [Median of two sorted arrays (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/median-of-two-sorted-arrays_985294)
3. [Search in Bitonic Array! | Interviewbit](https://www.interviewbit.com/problems/search-in-bitonic-array/)
4. [Matrix Search | Interviewbit](https://www.interviewbit.com/problems/matrix-search/)
5. [Weighted Job Scheduling (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/weighted-job-scheduling_1094885)
6. [Search in Rotated Sorted Array - LeetCode](https://leetcode.com/problems/search-in-rotated-sorted-array/)
7. [Unique Element In Sorted Array (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/1112654?topList=striver-sde-sheet-problems&utm_source=striver&utm_medium=website)
8. [K Largest Element (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/k-largest-element_1062624)
9. [Search In A Row Wise And Column Wise Sorted Matrix (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/search-in-a-row-wise-and-column-wise-sorted-matrix_839811)
10. [Aggressive Cows (codingninjas.com)](https://www.codingninjas.com/codestudio/problems/aggressive-cows_1082559) \*
11. [Problem - 1474B - Codeforces](https://codeforces.com/problemset/problem/1474/B)
12. [Problem - 1566A - Codeforces](https://codeforces.com/problemset/problem/1566/A)

# Bit Manipulations [1 Day: 15 questions]

# Heap & Maps [1 Day: 10 questions]

# Trees [2 Days: 20 questions]

# Graphs [3 Days: 20 questions]

# Dynamic Programming [3 Days: 30 questions]