1D Array

1. Find max and min with minimum no of comparision
2. Sort 0, 1, 2
3. Union and Intersection
4. Find the longest sum contiguous subarray
5. Find duplicates in an array
6. Merge overlapping intervals
7. Count Inversion in an array
8. Next Permutation
9. Minimize the maximum pair
10. Best time to buy and sell stock
11. Rearrange move all negative elements to one side
12. Rotate array
13. Subarray with 0 sum
14. Maximum product in an subarray
15. Merge two sorted array
16. Common in 3 sorted array
17. Smallest sum subarray with sum greater than X.
18. Rotated sorted array
19. Check if array is sorted and rotated
20. Sum of two array

2D Array

① Wave Print pattern

② Spiral Matrix

③ Rotate a Matrix by 9

④ Search in a 2D Matrix

⑤ Search in a 2D Matrix

Binary Search

1. First and last Occurence in a array
2. Find Peak Element
3. Find Pivot Element
4. Search in a sorted and rotated array
5. Square root of a number
6. Search 2D Matrix
7. Koko Eating Bananas
8. Find Minimum in rotated sorted array
9. Search in rotated sorted array
10. Book Allocation
11. Search in 2D Matrix II
12. Binary Search
13. Median of 2 two sorted array
14. Aggressive cows.
15. Floor and Ceil

Linked List

1. Insertion and deletion
2. Reverse a Linked List
3. Find middle of Linked List
4. Reverse K LL groups
5. Detect and remove loop
6. Remove duplicates from array
7. Merge 2 Sorted LL
8. Sort 0s, 1s, 2s.
9. Check Palindrome in Linked List
10. Add two Numbers
11. Merge Sort in LL
12. Reorder List
13. Remove Nth node from the end
14. Merge K Sorted Lists
15. Doubly and Circular LL.

8. Subsets
9. Subsets II
10. Subsequences of a string
11. Phone keypad problem
12. Permutations
13. Subset Sum
14. Combination Sum 1
15. Combination Sum 2
16. Palindrome Partitioning
17. Word Search
18. N Queens
19. Rat in a maze

Stack

① Array Implementation : struct contains , size, *arr

② LinkedList Implementation : key words → 2 class 1 for LL , 1 St

③ Implement 2 stacks in an array : 1 arr, 2 tops, top2 - top1 > 1

④ Delete Middle element from Stack : remove top store it , add a

⑤ Valid Parenthesis : put open brackets, check in stacks if (=) re

⑥ Insert at Bottom in a stacks : remove top, store it , add after retu

⑦ Reverse a stack using recursion : store top element , then pu

⑧ Redundant Brackets : push in stacks if open bracket or operators w

⑨ Next Smaller Element : if st.top() is less add in ans. else check

⑩ Largest Rectangular Area in Histogram : find next, prev , if (next

⑪ Min Stack : int val = min (st.top() , minStack.b[1] == -1 ? va

⑫ Evaluate Reverse Polish Notation s.pop() = a , s.pop() = b evalu

⑬ Generate Parentheses if (open < n) → add open & increment , i

⑭ Daily Temperatures next greater element

⑮ Prefix, Postfix conversion symbol , stacks, postfix po

Revision Cheat Sheet

Heap & Priority Queue

1. Find Median from data stream : if ! empty left push && (left size - rig
2. K closest Points to origin : distance < pq.top().first pq.push ({
3. Last Stone weight : min priority queue
4. Kth largest Element in an array
5. Sort characters by frequency : lambda function
6. Build Min-Heap : from n/2 - 1 to 0 && n/2 to n are leaf nod
7. Kth Smallest Element
8. Merge 2 Heaps
9. Is Tree a Heap : isCBT && countnodes && maxheap
10. Min Cost of n ropes
11. Merge k Sorted Array
12. Kth Largest Sum subarray
13. Median in a Stream
14. Heapify
15. Heap Sort

Course Schedule	Graphs	Medium
Course Schedule II	Graphs	Medium
Redundant Connection	Graphs	Medium
Number of Connected Components In An Undirected Graph	Graphs	Medium
Graph Valid Tree	Graphs	Medium
Word Ladder	Graphs	Hard
Reconstruct Itinerary	Graphs	Hard
Number of Islands	Graphs	Medium
Clone Graph	Graphs	Medium
Max Area of Island	Graphs	Medium
Pacific Atlantic Water Flow	Graphs	Medium
Surrounded Regions	Graphs	Medium
Rotting Oranges	Graphs	Medium
Walls And Gates	Graphs	Medium
Min Cost to Connect All Points	Graphs	Medium
Network Delay Time	Graphs	Medium
Swim In Rising Water	Graphs	Hard
Alien Dictionary	Graphs	Hard
Cheapest Flights Within K Stops	Graphs	Medium
Coin Change	DP	Medium
Coin Change II	DP	Medium
Climbing Stairs	DP	Easy
House Robber	DP	Medium
House Robber II	DP	Medium
Jump Game	DP	Medium
Jump Game II	DP	Medium
Longest Increasing Subsequence	DP	Medium

Longest Common Subsequence	DP	Medium
Word Break Problem	DP	Medium
Combination Sum	DP	Medium
Decode Ways	DP	Medium
Unique Paths	DP	Medium
Pascal's Triangle	DP	Easy
Regular Expression Matching	DP	Hard
Race Car	DP	Hard
Min Cost Climbing Stairs	DP	Easy
Palindromic Substrings	DP	Medium
Maximum Product Subarray	DP	Medium
Longest Increasing Path In a Matrix	DP	Hard
Generate Parentheses	DP	Medium
Longest Valid Paranthesis	DP	Hard
Valid Parenthesis String	DP	Medium
Edit Distance	DP	Medium
Partition Equal Subset Sum	DP	Medium
Unique Paths	DP	Medium
Best Time To Buy and Sell Stocks	DP	Easy
Best Time To Buy and Sell Stocks II	DP	Medium
Best Time To Buy and Sell Stocks III	DP	Hard
Best Time To Buy and Sell Stocks IV	DP	Hard
Target Sum	DP	Medium
Interleaving String	DP	Medium
Regular Expression Matching	DP	Hard
Partition Labels	DP	Medium
Distinct Subsequences	DP	Hard
Burst Balloons	DP	Hard
Maximum Subarray	DP	Medium
Gas Station	DP	Medium
Hand of Straights	DP	Medium