

Mathematics

- Missing Number in Array
- Trailing Zeros in Factorial
- A Simple Fraction
- Nth Natural Number
- Smallest Positive Integer that can not be represented as Sum

Arrays

- Rotate Array
- Majority Element
- Plus one
- Array of alternative +ve and -ve no.s
- Product Array puzzle
- Frequencies of Limited Range Array Elements
- Large Factorial
- Jump Game
- Maximum number of 1's
- Buy and Sell Stock as many as
- Longest Consecutive Subsequence
- Maximum value of difference of a pair of elements and their Index
- Maximum index
- K-th element of two sorted Arrays
- Trapping Rain Water
- 3 sum closest
- Maximum circular Subarray Sum
- Merge without Extra Space

Searching

- Search insert position of K in a sorted array
- Collecting Wood
- Left most and right most index
- Bitonic Point
- Search an element in sorted and rotated array
- Square root of a number
- Find missing in second array
- Painter's Partition Problem
- Median of 2 sorted arrays of Different sizes
- Allocate minimum number of pages

Sorting

- Wave array
- Count the number of possible triangles
- Triplets with sum with given range

- count inversions
- Sort an array according to the other
- Minimum Platforms
- Maximum Index

Matrix

- Sort a 2D vector diagonally
- Spiral Matrix
- Boolean matrix
- Rotate matrix by 90 degrees
- Search in a row-column sorted Matrix
- Row with maximum 1s

String

- Reverse words in a given string
- Longest Common Prefix
- Roman Number to Integer
- Next higher palindromic number using the same set of digits
- Length of longest prefix suffix
- Smallest window in string containing all characters
- Validate an IP address
- Implement Atoi
- Look and say Pattern
- Longest K unique characters substring

Hashing

- Key Pair
- Top K Frequent Elements in Array
- Intersection of two arrays
- Array Pair Sum Divisibility Problem
- Triplet Sum in Array
- Length of the longest substring
- Is Sudoku Valid
- Print Anagrams Together
- Subarrays with sum K
- Longest subarray with sum divisible by K

Bit Masking

- Reverse bits
- Number of 1 Bits
- Sum of two integers

- Check whether K-th bit is set or not
- Longest Consecutive 1's
- Find the element that appears once
- Gray code
- Maximum AND
- Maximum subset XOR
- Bit Difference

Linked List

- Merge Two Sorted Linked Lists
- Reverse a Linked List
- Delete a Node without Head Pointer
- Add two Numbers represented by linked lists
- Finding middle element in a linked list
- Check if linked list is palindrome
- Rearrange a linked list
- Detect and Remove a loop In Linked List
- Merge Sort for Linked List
- Intersection of Linked List
- Rotate Linked List by K places
- Flattening a Linked List
- Reverse a linked list in groups of given size
- Partition a linked list around a given value
- Clone a linked list with next and random pointers

Stack

- Parenthesis Checker
- Infix to Postfix
- Restrictive Candy Crush
- Next Larger Element
- Stock span problem
- The Celebrity Problem
- Maximum Rectangular Area in a Histogram
- Longest Valid Parentheses
- Maximum of minimum for every window size
- Remove K digits
- 132 Geeky Buildings

Heap

- Rearrange Characters
- Minimum Cost of ropes
- Maximum of all subarrays of size k

- Circular tour (Sliding Window)
- Kth largest element of stream
- Merge k sorted arrays
- Median of stream

Binary Tree

- Symmetric Tree
- Zigzag Tree Traversal
- Checked for Balanced tree
- Height of Binary Tree
- Diameter of Binary tree
- Determine if two trees are identical
- Minimum depth of binary tree
- Check if subtree
- Inorder Traversal (iterative)
- Preorder Traversal (iterative)
- Postorder Traversal(iterative)
- Vertical Traversal of a Binary Tree
- Construct Binary Tree from Preorder and Inorder Traversal
- Connect nodes at same level
- Lowest Common Ancestor of a Binary Tree
- Boundary Traversal
- Sum tree
- Binary Tree to Doubly Linked List
- Maximum sum path between two leaf nodes
- Burning Tree

Binary Search Tree

- Check for BST
- Array to BST
- Inorder Successor in BST
- Kth Largest Element in a BST
- Remove BST keys outside the given range
- Pair with given target in BST
- Unique BSTs
- Preorder Traversal and BST
- Merge two BST's
- Fixing two nodes of a BST

Graph

- Number of Islands
- COVID Spread

- Prerequisite tasks
- Strongly Connected Component
- Minimum swaps to sort
- Shortest path
- Circle of Strings
- Snake Ladder
- Detect cycle in an undirected graph
- Detect cycle in a directed graph
- Check for Bipartite graph
- Unit Area of Largest region of 1s
- Alien Dictionary
- Word Ladder

Trie

- Minimum XOR value pair
- Word Boggle - II
- Most frequent word in an array of strings
- Minimum XOR value pair

Greedy

- N meetings in one room
- Coin Piles
- Maximize Toys
- Largest number with given sum
- Minimize the heights
- Fractional Knapsack
- Job Sequencing
- Police and Thieves
- Water the Plants

Dynamic Programming

- Count ways to reach the n'th stair
- Get Minimum Squares
- Nth Fibonacci Number
- 0 – 1 Knapsack Problem
- Number of Coins
- Edit distance
- Maximize The Cut Segments
- Box Stacking
- Longest Increasing Subsequence
- Longest Palindromic Substring

- Longest Common Substring
- Longest Common Subsequence
- Wildcard Pattern Matching
- Total Decoding Messages
- Max length chain
- Maximum sum increasing subsequence
- Minimum number of jumps
- Subset Sum Problem
- Maximum path sum in matrix
- Player with max score
- Shortest Common Supersequence
- palindrome partitioning
- Form a Palindrome
- Boolean Parenthesization
- Matrix Chain
- Maximum Profit
- Minimum Cost Path
- Partition Equal Subset Sum

Recursion

- Number of Paths
- Pascals Triangle
- Josephus problem
- Tower of Hanoi
- Special Keyboard
- Flood Fill Algorithm

Backtracking

- Permutations
- Letter Combinations of a Phone Number
- Generate Parentheses
- Word Boggle - 1
- Rat in a Maze Problem
- Largest number in k swaps
- Combination Sum
- Palindrome Partitioning
- N-Queen Problem
- Solve the Sudoku

Algorithms

- Bubble sort
- Insertion Sort

- Selection Sort
- Merge sort
- Quick Sort
- Heap sort
- Count sort
- Kadane algorithm
- Minimum Spanning Tree
- Implementing Dijkstra Algorithm
- Floyd Warshall
- Bellman Ford Algorithm
- Rabin-Karp Algorithm
- KMP algorithm
- Z Algorithm
- Huffman Encoding
-

Design

- Stack using two queues
- Queue using stack
- Ternary Search
- Binary Heap Operations
- LRU cache
- Trie | (Insert and Search)