# Bit Manipulation	
Problem	**Link**
How to check if a given number is a power of 2	Link
Check if the kth bit is set in the binary form of the given number	Link
Count the number of set bits in the binary representation of the given number.	Link
Print N-bit binary numbers having more 1's than 0's in all prefixes	Link
Find the element that appears once in an array where every other element appears twice	Link
# Arrays & Recursion & Backtracking	
Print all subsets with given sum	Link
XOR of pairwise sum of every unordered pairs in an array	Link
Find the element that appears once	Link
Program for Fibonacci numbers (with recursion)	Link
Program for Tower of Hanoi	Link
Check if some subset of array has sum==k	Link
Print all combinations of balanced parentheses	Link
Magic square matrix where sum of each row is equal to sum of columns and sum of diagonal elements	Link
Check given matrix is magic square or not	Link
Place k elements such that minimum distance is maximized	Link
Find winner of an election where votes are represented as candidate names	Link
Count pairs (i, j) from given array such that i < j and arr[i] > K * arr[j]	Link
Largest Sum Contiguous Subarray	Link
Given an array arr[], find the maximum j – i such that arr[j] > arr[i]	Link
Find the two repeating elements in a given array	Link
Find the element that appears once others appears thrice	Link
Find minimum time to finish all jobs with given constraints	Link
Aggressive Cows || SPOJ	Link
Merging two unsorted arrays in sorted order	Link
Stock Buy Sell to Maximize Profit	Link
Pascal's Triangle	Link

Non-decreasing subsequence of size k with minimum sum	Link
Longest Subarray consisting of unique elements from an Array	Link
maximum-length-of-repeated-subarray	Link
Count distinct elements in every window of size k	Link
Given an array A[] and a number x, check for pair in A[] with sum as x (aka Two Sum)	Link
Find the frequency of a number in an array	Link
Find the two repeating elements in a given array	Link
Maximum Sum Subarray Problem (Kadane's Algorithm)	Link
Maximum subarray sum in array formed by repeating the given array k times	Link
given an array, find the max sum subarray such that the elements can be re-arranged in non-decreasing order	
Queries to calculate the Sum of Array elements in the range [L, R] having indices as multiple of K	Link
Strategy for a 2 Player Coin Game	Link
Product of Array except itself	Link
array rotation	Link
find the missing number in a sorted array	Link
Largest subarray with equal number of 0s and 1s	Link
Max Consecutive Ones	Link
Counting frequencies of array elements	Link
Trapping Rain Water	Link
Print all elements in sorted order from row and column wise sorted matrix	Link
The Knight's tour problem	Link
# Strings	
Check if a word is present in a sentence	Link
Longest Common Prefix	Link
Check if string is pallindrome using 2 pointer	Link
Find the first repeated character in a string	Link
Longest Palindromic Subsequence	Link
Check if two strings have a common substring	Link
Check if a string is substring of another	Link
Longest Palindromic Substring	Link
Rabin-Karp Algorithm for Pattern Searching	Link

KMP Algorithm for Pattern Searching	Link
Check whether two strings are anagram of each other	Link
Minimum characters to be added at front to make string palindrome	Link
Stack/Queues	
Implement two stacks in an array	Link
Queue using Stacks	Link
Array implementation of queue	Link
Implement Stack using Queues	Link
Check for Balanced Brackets in an expression	Link
Sort a stack using recursion	Link
The Stock Span Problem	Link
LRU Cache	Link
Largest Rectangle in Histogram	Link
Sliding Window Maximum (Maximum of all subarrays of size k)	Link
LFU Cache	Link
LinkedList	
Nearest smaller to right	Link
Reverse a linked list	Link
Merge two sorted linked lists	Link
Find the middle of a given linked list	Link
Sort List	Link
Segregate even and odd nodes in a Linked List	Link
Deleting a node	Link
Add Two Numbers Represented by Linked Lists	Link
Write a function to get the intersection point of two Linked Lists	Link
Detect loop in a linked list	Link
Trees	
All Traversals of tree	

Convert a Binary Tree into its Mirror Tree	Link
Level Order Binary Tree Traversal	Link
Find sum of all left leaves in a given Binary Tree	Link
Sum of all the numbers that are formed from root to leaf paths	Link
check if a binary tree is BST or not	Link
Search a node in Binary Tree	Link
Sorted Array to Balanced BST	Link
Delete node in BST	Link
Print path between any two nodes in a Binary Tree	Link
Maximum sum of nodes in Binary tree such that no two are adjacent	Link
Lowest Common Ancestor in a Binary Search Tree.	Link
Print all nodes at distance k from a given node	Link
Print a Binary Tree in Vertical Order	Link
Print Left View of a Binary Tree	Link
Print Right View of a Binary Tree	Link
Iterative Preorder Traversal	Link
Inorder Tree Traversal without Recursion	Link
Floor and Ceil from a BST	Link
Remove BST keys outside the given range	Link
Diagonal Traversal of Binary Tree	Link
Print Postorder traversal from given Inorder and Preorder traversals	Link
Convert Binary Search Tree to Sorted Doubly Linked List	Link
Sorted DLL to Balanced BST	Link
Construct a complete binary tree from given array in level order fashion	Link
Longest path in an undirected tree	Link
Heaps/Tries	
Trie | (Insert and Search)	Link
Program to print N minimum elements from list of integers	Link
Count the number of words with given prefix using Trie	Link
Print unique rows in a given Binary matrix	Link
Find the maximum subarray XOR in a given array	Link
Sliding Window Median	Link

Print all subsequences of a string	Link
Min Heap and Max Heap Implementation	Link
DP	
Find maximum xor of k elements in an array	Link
Count ways to reach the nth stair using step 1, 2 or 3	Link
count the number of ways a floor of size 5*N can be filled with tiles of sizes 1*5 and 2*5'	Link
Flood Fill	Link
No consecutive 1s in binary	Link
Dice Throw	Link
Minimize cost of painting N houses such that adjacent houses have different colors	Link
Minimum cost to complete given tasks if cost of 1, 7 and 30 days are given	Link
Maximum Subarray, using DP	Link
Find the maximum sum of a subsequence with no adjacent elements	Link
Longest Increasing Subsequence	Link
Compute nCr	Link
Find maximum profit earned from at most `k` stock transactions	Link
0-1 Knapsack Problem	Link
Coin Change	Link
Count number of ways to reach destination in a Maze	Link
Submatrix Sum Queries	Link
Maximum sum submatrix	Link
Maximize the sum of selected numbers from an array to make it empty	Link
Matrix Chain Multiplication	Link
Maximum size rectangle binary sub-matrix with all 1s	Link
Egg Dropping Puzzle	Link
Graphs	
Graph and its representations	Link
Adjacency Matrix of a given Graph	Link

Find if Path Exists in Graph	Link
Shortest path in an unweighted graph	Link
count Number of connected components in an undirected graph	Link
Check if a given graph is tree or not	Link
Shortest path in a directed graph by Dijkstra’s algorithm	Link
finding longest path in an undirected and unweighted graph	Link
Find the number of islands	Link
Number of shortest paths in an Undirected Weighted Graph	Link
Print completed tasks at end according to Dependencies	Link
Detect Cycle in a Directed Graph	Link
Topological Sorting	Link
Kruskal’s Minimum Spanning Tree Algorithm	Link
Prim’s Minimum Spanning Tree	Link
Count the number of non-reachable nodes	Link
Check if a graphs has a cycle of odd length	Link
Lexicographically Kth smallest way to reach given coordinate from origin	Link
Snake and Ladder Problem	Link