

Arrays

Question	Article	Practice
Reverse the array	Link	Link
Find the maximum and minimum element in an array	Link	Link
Find the “Kth” max and min element of an array	Link	Link
Given an array which consists of only 0, 1 and 2. Sort the array without using any sorting algo	Link	Link
Move all the negative elements to one side of the array	Link	Link
Find the Union and Intersection of the two sorted arrays.	Link	Link
Write a program to cyclically rotate an array by one.	Link	Link
Find Largest sum contiguous Subarray [V. IMP]	Link	Link
Minimize the maximum difference between heights [V.IMP]	Link	Link
Minimum no. of Jumps to reach end of an array	Link	Link
Find duplicate in an array of N+1 Integers	Link	Link
Merge 2 sorted arrays without using Extra space.	Link	Link
Kadane’s Algo [V.V.V.V.V IMP]	Link	Link
Merge Intervals	Link	Link
Next Permutation	Link	Link
Count Inversion	Link	Link
Best time to buy and Sell stock	Link	Link
Find all pairs on integer array whose sum is equal to given number	Link	Link

Question	Article	Practice
Find common elements In 3 sorted arrays	Link	Link
Rearrange the array in alternating positive and negative items with O(1) extra space	Link	Link
Find if there is any subarray with sum equal to 0	Link	Link
Find factorial of a large number	Link	Link
Find maximum product subarray	Link	Link
Find longest consecutive subsequence	Link	Link
Given an array of size n and a number k, fin all elements that appear more than "n/k" times.	Link	Link
Maximum profit by buying and selling a share at most twice	Link	Link
Find whether an array is a subset of another array	Link	Link
Find the triplet that sum to a given value	Link	Link
Trapping Rain water problem	Link	Link
Chocolate Distribution problem	Link	Link
Smallest Subarray with sum greater than a given value	Link	Link
Three way partitioning of an array around a given value	Link	Link
Minimum swaps required bring elements less equal K together	Link	Link
Minimum no. of operations required to make an array palindrome	Link	Link
Median of 2 sorted arrays of equal size	Link	Link
Median of 2 sorted arrays of different size	Link	Link

Matrix

Question	Article	Practice
Spiral traversal on a Matrix	Link	Link
Search an element in a Matrix	Link	Link
Find median in a row wise sorted matrix	Link	Link
Find row with maximum no. of 1's	Link	Link
Print elements in sorted order using row-column wise sorted matrix	Link	Link
Maximum size rectangle	Link	Link
Find a specific pair in matrix	Link	NA
Rotate matrix by 90 degrees	Link	Link
Kth smallest element in a row-column wise sorted matrix	Link	Link
Common elements in all rows of a given matrix	Link	Link

Strings

Question	Article	Practice
Reverse a String	Link	Link
Check whether a String is Palindrome or not	Link	Link
Find Duplicate characters in a string	Link	NA
Why strings are immutable in Java?	Link	NA
Write a Code to check whether one string is a rotation of another	Link	Link
Write a Program to check whether a string is a valid shuffle of two strings or not	Link	NA
Count and Say problem	Link	Link
Write a program to find the longest Palindrome in a string.[Longest palindromic Substring]	Link	Link
Find Longest Recurring Subsequence in String	Link	Link
Print all Subsequences of a string.	Link	NA
Print all the permutations of the given string	Link	Link
Split the Binary string into two substring with equal 0's and 1's	Link	NA
Word Wrap Problem [VERY IMP].	Link	Link
EDIT Distance [Very Imp]	Link	Link

Question	Article	Practice
Find next greater number with same set of digits. [Very Very IMP]	Link	Link
Balanced Parenthesis problem.[Imp]	Link	Link
Word break Problem[Very Imp]	Link	Link
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KMP Algorithm	Link	Link
Convert a Sentence into its equivalent mobile numeric keypad sequence.	Link	Link
Minimum number of bracket reversals needed to make an expression balanced.	Link	Link
Count All Palindromic Subsequence in a given String.	Link	Link
Count of number of given string in 2D character array	Link	Link
Search a Word in a 2D Grid of characters.	Link	Link
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Longest Common Prefix	Link	Link
Number of flips to make binary string alternate	Link	Link

Question	Article	Practice
Find the first repeated word in string.	Link	Link
Minimum number of swaps for bracket balancing.	Link	Link
Find the longest common subsequence between two strings.	Link	Link
Program to generate all possible valid IP addresses from given string.	Link	Link
Write a program to find the smallest window that contains all characters of string itself.	Link	Link
Rearrange characters in a string such that no two adjacent are same	Link	Link
Minimum characters to be added at front to make string palindrome	Link	Link
Given a sequence of words, print all anagrams together	Link	Link
Find the smallest window in a string containing all characters of another string	Link	Link
Recursively remove all adjacent duplicates	Link	Link
String matching where one string contains wildcard characters	Link	Link
Function to find Number of customers who could not get a computer	Link	NA
Transform One String to Another using Minimum Number of Given Operation	Link	Link
Check if two given strings are isomorphic to each other	Link	Link

Question	Article	Practice
Recursively print all sentences that can be formed from list of word lists	Link	NA

Searching and Sorting:

Question	Article	Practice
Find first and last positions of an element in a sorted array	Link	Link
Find a Fixed Point (Value equal to index) in a given array	Link	Link
Search in a rotated sorted array	Link	Link
Square root of an integer	Link	Link
Maximum and minimum of an array using minimum number of comparisons	Link	Link
Optimum location of point to minimize total distance	Link	Link
Find the repeating and the missing	Link	Link
Find majority element	Link	Link
Searching in an array where adjacent differ by at most k	Link	Link
Find a pair with a given difference	Link	Link
Find four elements that sum to a given value	Link	Link
Maximum sum such that no 2 elements are adjacent	Link	Link

Question	Article	Practice
Count triplet with sum smaller than a given value	Link	Link
Merge 2 sorted arrays	Link	Link
Product array Puzzle	Link	Link
Sort array according to count of set bits	Link	Link
Minimum no. of swaps required to sort the array	Link	Link
Bishu and Soldiers	Link	Link
Rasta and Kheshtak	Link	Link
Kth smallest number again	Link	Link
Find pivot element in a sorted array	Link	Link
K-th Element of Two Sorted Arrays	Link	Link
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Question	Article	Practice
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Smallest number with atleast n trailing zeroes in factorial	Link	Link
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Partitioning and Sorting Arrays with Many Repeated Entries	Link	Link

LinkedList:

Question	Article	Practice
Write a Program to reverse the Linked List. (Both Iterative and recursive)	Link	Link
Reverse a Linked List in group of Given Size. [Very Imp]	Link	Link
Write a program to Detect loop in a linked list.	Link	Link
Write a program to Delete loop in a linked list.	Link	Link

Question	Article	Practice
Find the starting point of the loop.	Link	Link
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Remove Duplicates in a Un-sorted Linked List.	Link	Link
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Question	Article	Practice
Deletion from a Circular Linked List.	Link	Link
Reverse a Doubly Linked list.	Link	Link
Find pairs with a given sum in a DLL.	Link	Link
Count triplets in a sorted DLL whose sum is equal to given value "X".	Link	Link
Sort a "k" sorted Doubly Linked list.[Very IMP]	Link	Link
Rotate Doubly Linked list by N nodes.	Link	Link
Rotate a Doubly Linked list in group of Given Size.[Very IMP]	Link	Link
Can we reverse a linked list in less than $O(n)$?	Link	Link
Why Quicksort is preferred for. Arrays and Merge Sort for Linked Lists ?	Link	Link
Flatten a Linked List	Link	Link
Sort a LL of 0's, 1's and 2's	Link	Link
Clone a linked list with next and random pointer	Link	Link
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Question	Article	Practice
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Program for n'th node from the end of a Linked List	Link	Link

Bit Manipulation:

Question	Article	Practice
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Find the two non-repeating elements in an array of repeating elements	Link	Link
Count number of bits to be flipped to convert A to B	Link	Link
Count total set bits in all numbers from 1 to n	Link	Link
Program to find whether a no is power of two	Link	Link
Find position of the only set bit	Link	Link
Copy set bits in a range	Link	Link
Divide two integers without using multiplication, division and mod operator	Link	Link
Calculate square of a number without using *, / and pow()	Link	Link
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Greedy

Question	Article	Practice
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Job Sequencing Problem	Link	Link
Huffman Coding	Link	Link
Water Connection Problem	Link	Link
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Greedy Algorithm to find Minimum number of Coins	Link	Link
Maximum trains for which stoppage can be provided	Link	Link
Minimum Platforms Problem	Link	Link
Buy Maximum Stocks if i stocks can be bought on i-th day	Link	Link
Find the minimum and maximum amount to buy all N candies	Link	Link
Minimize Cash Flow among a given set of friends who have borrowed money from each other	Link	Link
Minimum Cost to cut a board into squares	Link	Link
Check if it is possible to survive on Island	Link	Link
Find maximum meetings in one room	Link	Link

Question	Article	Practice
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Maximize array sum after K negations	Link	Link
Maximize the sum of $arr[i]*i$	Link	Link
Maximum sum of absolute difference of an array	Link	Link
Maximize sum of consecutive differences in a circular array	Link	Link
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Question	Article	Practice
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Longest subsequence such that difference between adjacent is one	Link	Link
Maximum subsequence sum such that no three are consecutive	Link	Link
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Maximum sum of pairs with specific difference	Link	Link
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Maximum difference of zeros and ones in binary string	Link	Link

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Minimum removals from array to make $\max - \min \leq K$	Link	Link
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Count number of ways to reach a given score in a game	Link	Link
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Question	Article	Practice
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Optimal Binary Search Tree	Link	Link
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Word Wrap Problem	Link	Link
Mobile Numeric Keypad Problem [IMP]	Link	Link
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Stacks and Queues

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Interleave the first half of the queue with second half	Link	Link
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Distance of nearest cell having 1 in a binary matrix	Link	Link
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Check if all levels of two trees are anagrams or not.	Link	Link
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Binary Trees

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Construct Binary Tree from String with Bracket Representation	Link	Link
Convert Binary tree into Doubly Linked List	Link	Link
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Construct Binary tree from Inorder and preorder traversal	Link	Link
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Check if Binary tree is Sum tree or not	Link	Link
Check if all leaf nodes are at same level or not	Link	Link
Check if a Binary Tree contains duplicate subtrees of size 2 or more [IMP]	Link	Link
Check if 2 trees are mirror or not	Link	Link
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Question	Article	Practice
Check if given graph is tree or not. [IMP]	Link	Link
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Maximum Sum of nodes in Binary tree such that no two are adjacent	Link	Link
Print all “K” Sum paths in a Binary tree	Link	Link
Find LCA in a Binary tree	Link	Link
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Binary Search Tree:

Question	Article	Practice
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Find min and max value in a BST	Link	Link
Find inorder successor and inorder predecessor in a BST	Link	Link

Question	Article	Practice
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Convert a normal BST into a Balanced BST	Link	Link
Merge two BST [V.V.V>IMP]	Link	Link
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Count pairs from 2 BST whose sum is equal to given value "X"	Link	Link
Find the median of BST in O(n) time and O(1) space	Link	Link
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Question	Article	Practice
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Check whether BST contains Dead end	Link	Link
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Graphs

Question	Article	Practice
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Detect Cycle in Directed Graph using BFS/DFS Algo	Link	Link
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Minimum time taken by each job to be completed given by a Directed Acyclic Graph	Link	Link
Find whether it is possible to finish all tasks or not from given dependencies	Link	Link
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Given a sorted Dictionary of an Alien Language, find order of characters	Link	Link
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Total no. of Spanning tree in a graph	Link	Link
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Question	Article	Practice
Graph Colouring Problem	Link	Link
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Count Strongly connected Components(Kosaraju Algo)	Link	Link
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Detect Negative cycle in a graph	Link	Link
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Water Jug problem using BFS	Link	Link
Find if there is a path of more than length from a source	Link	Link
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Minimum edges to reverse to make path from source to destination	Link	Link

Question	Article	Practice
Paths to travel each nodes using each edge(Seven Bridges)	Link	Link
Vertex Cover Problem	Link	Link
Chinese Postman or Route Inspection	Link	Link
Number of Triangles in a Directed and Undirected Graph	Link	Link
Minimise the cashflow among a given set of friends who have borrowed money from each other	Link	Link
Two Clique Problem	Link	Link

Heap

Question	Article	Practice
Implement a Maxheap/MinHeap using arrays and recursion.	Link	Link
Sort an Array using heap. (HeapSort)	Link	Link
Maximum of all subarrays of size k.	Link	Link
“K” largest element in an array	Link	Link
Kth smallest and largest element in an unsorted array	Link	Link
Merge “K” sorted arrays. [IMP]	Link	Link
Merge 2 Binary Max Heaps	Link	Link

Question	Article	Practice
Kth largest sum continuous subarrays	Link	Link
Leetcode- reorganize strings	Link	Link
Merge “K” Sorted Linked Lists [V.IMP]	Link	Link
Smallest range in “K” Lists	Link	Link
Median in a stream of Integers	Link	Link
Check if a Binary Tree is Heap	Link	Link
Connect “n” ropes with minimum cost	Link	Link
Convert BST to Min Heap	Link	Link
Convert min heap to max heap	Link	Link
Rearrange characters in a string such that no two adjacent are same.	Link	Link
Minimum sum of two numbers formed from digits of an array	Link	Link

Trie

Question	Article	Practice
Construct a trie from scratch	Link	Link
Find shortest unique prefix for every word in a given list	Link	Link

Question	Article	Practice
Word Break Problem (Trie solution)	Link	Link
Given a sequence of words, print all anagrams together	Link	Link
Implement a Phone Directory	Link	Link
Print unique rows in a given boolean matrix	Link	Link