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Easy Ideal Time : 5-10 mins
Medium Ideal Time : 15-20 mins

Hard Ideal Time : 40-60 mins (based on Qs) | 88 Qs

Topics	Question (375)
Arrays	Maximum and Minimum Element in an Array
Arrays	Reverse the Array
Arrays	<u>Maximum-Subarray</u>
Arrays	Contains Duplicate
Arrays	Chocolate Distribution Problem
Arrays	Search in Rotated Sorted Array
Arrays	Next Permutation
Arrays	Best time to Buy and Sell Stock
Arrays	Repeat and Missing Number Array
Arrays	Kth-Largest Element in an Array
Arrays	Trapping Rain Water
Arrays	Product of Array Except Self
Arrays	Maximum Product Subarray
Arrays	Find Minimum in Rotated Sorted Array
Arrays	Find Pair with Sum in Sorted & Rotated Array

Arrays 3Sum **Arrays Container With Most Water** Given Sum Pair **Arrays** Kth - Smallest Element Arrays Merge Overlapping Intervals Arrays Find Minimum Number of Merge Operations to Make an Array Palindrome Arrays **Arrays** Given an Array of Numbers Arrange the Numbers to Form the Biggest Number Space Optimization Using Bit Manipulations Arrays Subarray Sum Divisible K Arrays Print all Possible Combinations of r Elements in a Given Array of Size n Arrays Mo's Algorithm Arrays

Strings	<u>Valid Palindrome</u>
Strings	<u>Valid Anagram</u>
Strings	<u>Valid parentheses</u>
Strings	Remove Consecutive Characters
Strings	Longest Common Prefix
Strings	Convert a Sentence into its Equivalent Mobile Numeric Keypad Sequence
Strings	Print all the Duplicates in the Input String
Strings	Longest Substring without Repeating Characters
Strings	Longest Repeating Character Replacement
Strings	Group Anagrams
Strings	Longest Palindromic Substring
Strings	Palindromic Substrings
Strings	Next Permutation
Strings	Count Palindromic Subsequences

Strings	Smallest Window in a String Containing all the Characters of Another String
Strings	Wildcard String Matching
Strings	Longest Prefix Suffix
Strings	Rabin-Karp Algorithm for Pattern Searching
Strings	Transform One String to Another using Minimum Number of Given Operation
Strings	Minimum Window Substring
Strings	Boyer Moore Algorithm for Pattern Searching
Strings	Word Wrap

2D Arrays	Zigzag (or diagonal) Traversal of Matrix
2D Arrays	Set Matrix Zeroes
2D Arrays	Spiral Matrix
2D Arrays	Rotate Image
2D Arrays	Word Search
2D Arrays	Find the Number of Islands Set 1 (Using DFS)
2D Arrays	Given a Matrix of 'O' and 'X', Replace 'O' with 'X' if Surrounded by 'X'
2D Arrays	Find a Common Element in all Rows of a Given Row-Wise Sorted Matrix
2D Arrays	Create a Matrix with Alternating Rectangles of O and X
2D Arrays	Maximum Size Rectangle of all 1s

earching & Sorting Permute Two Arrays such that Sum of Every Pair is Greater or Equal to K earching & Sorting counting sort earching & Sorting find common elements three sorted arrays earching & Sorting Searching in an array where adjacent differ by at most k earching & Sorting ceiling in a sorted array

earching & Sorting Piar with given difference earching & Sorting majority element earching & Sortin count triplets with sum smaller that a given value earching & Sortin Maximum Sum Subsequence with no adjacent elements earching & Sortin Merge Sorted Arrays using O(1) Space earching & Sorting Inversion of Array earching & Sorting Find Duplicates in O(n) Time and O(1) Extra Space earching & Sortin Radix Sort earching & Sorting Product of Array except itself earching & Sortin Make all Array Elements Equal earching & Sortin Check if Reversing a Sub Array Make the Array Sorted earching & Sorting Find Four Elements that Sum to a Given Value earching & Sortin Median of Two Sorted Array with Different Size earching & Sortin Median of Stream of Integers Running Integers earching & Sorting Print Subarrays with 0 Sum earching & Sorting Aggressive Cows earching & Sortin Allocate Minimum number of Pages earching & Sorting Minimum Swaps to Sort

BacktrackingBacktracking Set 2 Rat in a MazeBacktrackingCombinational SumBacktrackingCrossword-PuzzleBacktrackingLongest Possible Route in a Matrix with HurdlesBacktrackingPrinting all solutions in N-Queen ProblemBacktrackingSolve the SudokuBacktrackingPartition Equal Subset Sum

Backtracking M Coloring Problem

Backtracking Knight Tour

Backtracking Soduko

Backtracking Remove Invalid Parentheses

BacktrackingWord Break Problem using Backtracking
Print all Palindromic Partitions of a String

Backtracking Find Shortest Safe Route in a Path with Landmines

Backtracking Partition of Set into K Subsets with Equal Sum

Backtracking Backtracking set-7 hamiltonian cycle

Backtracking <u>tug-of-war</u>

Backtracking Maximum Possible Number by doing at most K swaps

Backtracking Backtracking set-8 solving cryptarithmetic puzzles

Backtracking Find paths from corner cell to middle cell in maze

Backtracking Arithmetic Expressions

Linked List Reverse Linked List

Linked List Cycle

Linked List

Merge Two Sorted Lists

Delete with each past

Linked List Delete without Head node

Linked List Remove duplicates from an unsorted linked list

Linked List Sort a linked list of 0s-1s-or-2s

Linked List Multiply two numbers represented linked lists

Linked List Remove nth node from end of list

Linked List Reorder List

Linked List Detect and remove loop in a linked list

Linked List

Write a Function to get the Intersection Point of two Linked Lists

Linked List	Flatten a linked list with next and child pointers
Linked List	Linked list in zig-zag fashion
Linked List	Reverse a doubly linked list
Linked List	Delete nodes which have a greater value on right side
Linked List	Segregate even and odd Elements in a Linked List
Linked List	Point to next higher value node in a linked list with an Arbitrary Pointer
Linked List	Rearrange a given linked list in place
Linked List	Sort Biotonic Doubly Linked Lists
Linked List	Merge K Sorted Lists
Linked List	Merge sort for linked list
Linked List	Quicksort on singly-linked list
Linked List	Sum of two linked lists
Linked List	Flattening a linked list
Linked List	Clone a linked list with next and random Pointer
Linked List	Subtract two numbers represented as linked lists

Implement two stacks in an Array
Evaluation of Postfix Expression
Implement Stack using Queues
Queue Reversal
Implement Stack Queue using Deque
Reverse first k elements of queue
Design Stack with Middle Operation
<u>Infix to Postfix</u>
Design and Implement Special stack
Longest Valid String

Stacks & Queues Find if an expression has duplicate parenthesis or not

Stacks & Queues Stack permutations check if an array is stack permutation of other

Stacks & Queues Count natural numbers whose permutation greater number

Stacks & Queues Sort a stack using Recursion

Stacks & Queues Queue based approach for first non repeating character in a stream

Stacks & Queues The Celebrity Problem

Stacks & Queues Next larger Element

Stacks & Queues Distance of nearest cell

Stacks & Queues Rotten-oranges

Stacks & Queues Next smaller element

Stacks & Queues Circular-tour

Stacks & Queues Efficiently implement k-stacks single array

Stacks & Queues The celebrity problem

Stacks & Queues <u>Iterative tower of hanoi</u>

Stacks & Queues Find the maximum of minimums for every window size in a given array

Stacks & Queues <u>Iru cache implementation</u>

Stacks & Queues Find a tour that visits all stations

Activity selection problem greedy algo

Greedy
Greedy
Greedy
Minimum sum two numbers formed digits array-2

Greedy <u>Minimum sum absolute difference pairs two arrays</u>

Greedy Find maximum height pyramid from the given array of objects

Greedy<u>Minimum cost for acquiring all coins with k extra coins allowed with every coin</u>

Greedy Find maximum equal sum of every three stacks

Greedy <u>Job sequencing problem</u>

Greedy	Greedy algorithm egyptian fraction
Greedy	Fractional knapsack problem
Greedy	Maximum length chain of pairs
Greedy	Find smallest number with given number of digits and digit sum
Greedy	Maximize sum of consecutive differences circular-array
Greedy	paper-cut minimum number squares
Greedy	Lexicographically smallest array-k consecutive swaps
Greedy	Problems-CHOCOLA
Greedy	Find minimum time to finish all jobs with given constraints
Greedy	Job sequencing using disjoint set union
Greedy	Rearrange characters string such that no two adjacent are same
Greedy	Minimum edges to reverse to make path from a source to a destination
Greedy	Minimize Cash Flow among a given set of friends who have borrowed money from each other
Greedy	Minimum Cost to cut a board into squares

Binary Trees	Maximum Depth of Binary Tree
Binary Trees	Reverse Level Order Traversal
Binary Trees	Subtree of Another Tree
Binary Trees	<u>Invert Binary Tree</u>
Binary Trees	Binary Tree Level Order Traversal
Binary Trees	<u>Left View of Binary Tree</u>
Binary Trees	Right View of Binary Tree
Binary Trees	ZigZag Tree Traversal
Binary Trees	Create a mirror tree from the given binary tree
Binary Trees	<u>Leaf at same level</u>
Binary Trees	<u>Check for Balanced Tree</u>

Binary Trees Transform to Sum Tree **Binary Trees** Check if Tree is Isomorphic **Binary Trees** Same Tree **Binary Trees** Construct Binary Tree from Preorder and Inorder Traversal **Binary Trees** Height of Binary Tree **Binary Trees** Diameter of a Binary Tree **Binary Trees** Top View of Binary Tree **Binary Trees Bottom View of Binary Tree Binary Trees** Diagonal Traversal of Binary Tree **Boundary Traversal of binary tree Binary Trees** Construct Binary Tree from String with Brackets **Binary Trees** Minimum swap required to convert binary tree to binary search tree **Binary Trees Binary Trees** Duplicate subtree in Binary Tree **Binary Trees** Check if a given graph is tree or not Lowest Common Ancestor in a Binary Tree **Binary Trees Binary Trees** Min distance between two given nodes of a Binary Tree **Binary Trees Duplicate Subtrees Binary Trees** Kth ancestor of a node in binary tree **Binary Trees** Binary Tree Maximum Path Sum **Binary Trees** Serialize and Deserialize Binary Tree **Binary Trees** Binary Tree to DLL Print all k-sum paths in a binary tree **Binary Trees**

inary Search Tree Lowest Common Ancestor of a Binary Search Tree inary Search Tree Binary Search Tree | Set 1 (Search and Insertion)
inary Search Tree Minimum element in BST

inary Search Tree Predecessor and Successor

inary Search Tree Check whether BST contains Dead End

inary Search Tree Binary Tree to BST

inary Search Tree Kth largest element in BST

inary Search Tree Validate Binary Search Tree

inary Search Tree Kth Smallest Element in a BST

inary Search Tree Delete Node in a BST

inary Search Tree Flatten BST to sorted list

inary Search Tree Preorder to Postorder

inary Search Tree Count BST nodes that lie in a given range

inary Search Tree Populate Inorder Successor for all Nodes

inary Search Tree Convert Normal BST to Balanced BST

inary Search Tree Merge two BSTs

inary Search Tree Given n appointments, find all conflicting appointments

inary Search Tree Replace every element

inary Search Tree Construct BST from given preorder traversal

inary Search Tree Find median of BST in O(n) time and O(1) space

inary Search Tree Largest BST in a Binary Tree

Heaps & Hashing Choose k array elements such that difference of maximum and minimum is minimized

Heaps & Hashing Heap Sort

Heaps & Hashing Top K Frequent Elements

Heaps & Hashing k largest elements in an array

Heaps & Hashing Next Greater Element

Heaps & Hashing K'th Smallest/Largest Element in Unsorted Array

Heaps & Hashing Find the maximum repeating number in O(n) time and O(1) extra space

Heaps & Hashing K-th smallest element after removing some integers from natural numbers

Heaps & Hashing Find k closest elements to a given value

Heaps & Hashing K'th largest element in a stream

Heaps & Hashing Connect Ropes

Heaps & Hashing Cuckoo Hashing

Heaps & Hashing <u>Itinerary from a List of Tickets</u>

Heaps & Hashing Largest Subarray with 0 Sum

Heaps & Hashing Count distinct elements in every window of size k

Heaps & Hashing Group Shifted Strings

Heaps & Hashing Merge K Sorted lists

Heaps & Hashing Find Median from Data Stream

Heaps & Hashing Sliding Window Maximum

Heaps & Hashing Find the smallest positive number

Heaps & Hashing Find Surpasser Count of each element in array

Heaps & Hashing Tournament Tree and Binary Heap

Heaps & Hashing Check for palindrome

Heaps & Hashing Length of the largest subarray with contiguous elements

Heaps & Hashing Palindrome Substring Queries

Heaps & Hashing Subarray distinct elements

Heaps & Hashing Find the recurring function

Heaps & Hashing K maximum sum combinations from two arrays

Graphs BFS

Graphs DFS

Graphs Flood Fill Algorithm

Graphs Number of Triangles

Graphs Detect cycle in a graph

Graphs Detect cycle in an undirected graph

Graphs Rat in a Maze Problem

Graphs Steps by Knight Clone graph

Graphs Number of Operations to Make Network Connected

Graphs <u>Dijkstra's shortest path algorithm</u>

Graphs <u>Topological Sort</u>

Graphs Oliver and the Game

Graphs<u>Minimum time taken by each job to be completed given by a Directed Acyclic Graph</u>

Graphs Find whether it is possible to finish all tasks or not from given dependencies

Graphs Find the number of islands

Graphs Prim's Algo

Graphs Negative Weighted Cycle

GraphsFloyd WarshallGraphsGraph Coloring

GraphsSnakes and LaddersGraphsKosaraju's TheoremGraphsJourney to moon

Graphs Vertex Cover

Graphs M Coloring Problem

Graphs Cheapest Flights Within K Stops

Graphs Find if there is a path of more than k length from a source

GraphsBellman FordGraphsBipartitie GraphGraphsWord-Ladder

Graphs Word-Ladder

Allen Dictionary

Graphs	Kruskals MST
Graphs	Total number spanning trees graph
Graphs	<u>Travelling Salesman</u>
Graphs	Find longest path directed acyclic graph
Graphs	<u>Two Clique Problem</u>
Graphs	Minimise the cash flow
Graphs	<u>Chinese postman</u>
Graphs	<u>Water Jug</u>
Graphs	Water Jug 2

Tries	Construct a trie from scratch
Tries	Print unique rows in a given boolean matrix
Tries	Word Break Problem (Trie solution)
Tries	Given a sequence of words, print all anagrams together
Tries	Find shortest unique prefix for every word in a given list
Tries	<u>Implement a Phone Directory</u>

DP	Knapsack with Duplicate Items
DP	BBT counter
DP	Reach a given score
DP	Maximum difference of zeros and ones in binary string
DP	Climbing Stairs
DP	Permutation Coefficient
DP	Longest Repeating Subsequence
DP	Pairs with specific difference

DP	Longest subsequence-1
DP	Coin Change
DP	<u>LIS</u>
DP	Longest Common Subsequence
DP	Word Break
DP	Combination Sum IV
DP	House Robber
DP	Houe Robber 2
DP	<u>Decode Ways</u>
DP	<u>Unique Paths</u>
DP	<u>Jumps Game</u>
DP	Knapsack Problem
DP	<u>nCr</u>
DP	<u>Catalan Number</u>
DP	Edit Distance
DP	Subset Sum
DP	Gold mine
DP	Assembly Line Scheduling
DP	Maximize The Cut Segments
DP	Maximum sum increasing subsequence
DP	Count all subsequences having product less than K
DP	Maximum sum increasing subsequence
DP	Egg dropping puzzle
DP	Max length chain
DP	Largest Square in Matrix
DP	Maximum Path Sum
DP	Minimum Number of Jumps

DP	Minimum removals from array to make max – min <= K
DP	Longest Common Substring
DP	Partition Equal Subset Sum
DP	Longest Palindromic Subsequnce
DP	Count Palindromic Subsequences
DP	Longest Palindromic Substring
DP	Longest Alternating Sequence
DP	Weighted Job Scheduling
DP	<u>Coin Game</u>
DP	Coin Game Winner
DP	Optimal Strategy for a game
DP	Word Wrap
DP	Mobile numeric keypad
DP	Maximum Length of Pair Chain
DP	Matrix Chain Multiplication
DP	Maximum profit by buying and selling a share at most twice
DP	Optimal BST
DP	Largest Submatrix with sum 0
DP	Largest area rectangular sub-matrix with equal number of 1's and 0's

Bit Manipulation	Count set bits in an integer
Bit Manipulation	Find the two non-repeating elements in an array of repeating elements
Bit Manipulation	Program to find whether a no is power of two
Bit Manipulation	Find position of the only set bit
Bit Manipulation	Count number of bits to be flipped to convert A to B
Bit Manipulation	Count total set bits in all numbers from 1 to n

Bit Manipulation

Segment Trees Range Sum Query - Immutable

Segment Trees Range Minimum Query

Segment Trees Range Sum Query - Mutable

Segment Trees Create Sorted Array through Instructions

Segment Trees Count of Range Sum

Segment Trees Count of Smaller Numbers After Self