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|  | DATA STRUCTURES AND ALGORITHMS |
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| **Topic:** | **Problem:** |
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| **1.Array** | [Reverse the array](https://www.geeksforgeeks.org/write-a-program-to-reverse-an-array-or-string/) |
| **2.Array** | Find the maximum and minimum element in an array |
| **3.Array** | [Find the "Kth" max and min element of an array](https://practice.geeksforgeeks.org/problems/kth-smallest-element/0) |
| **4.Array** | [Given an array which consists of only 0, 1 and 2. Sort the array without using any sorting algo](https://practice.geeksforgeeks.org/problems/sort-an-array-of-0s-1s-and-2s/0) |
| **5.Array** | [Move all the negative elements to one side of the array](https://www.geeksforgeeks.org/move-negative-numbers-beginning-positive-end-constant-extra-space/) |
| **6.Array** | [Find the Union and Intersection of the two sorted arrays.](https://practice.geeksforgeeks.org/problems/union-of-two-arrays/0) |
| **7.Array** | [Write a program to cyclically rotate an array by one.](https://practice.geeksforgeeks.org/problems/cyclically-rotate-an-array-by-one/0) |
| **8.Array** | [find Largest sum contiguous Subarray [V. IMP]](https://practice.geeksforgeeks.org/problems/kadanes-algorithm/0) |
| **9.Array** | [Minimise the maximum difference between heights [V.IMP]](https://practice.geeksforgeeks.org/problems/minimize-the-heights3351/1) |
| **10.Array** | [Minimum no. of Jumps to reach end of an array](https://practice.geeksforgeeks.org/problems/minimum-number-of-jumps/0) |
| **11.Array** | [find duplicate in an array of N+1 Integers](https://leetcode.com/problems/find-the-duplicate-number/) |
| **12.Array** | [Merge 2 sorted arrays without using Extra space.](https://practice.geeksforgeeks.org/problems/merge-two-sorted-arrays5135/1)+ |
| **13.Array** | [Kadane's Algo [V.V.V.V.V IMP]](https://practice.geeksforgeeks.org/problems/kadanes-algorithm/0) |
| **14.Array** | [Merge Intervals](https://leetcode.com/problems/merge-intervals/) |
| **15.Array** | [Next Permutation](https://leetcode.com/problems/next-permutation/) |
| **16.Array** | [Count Inversion](https://practice.geeksforgeeks.org/problems/inversion-of-array/0) |
| **17.Array** | [Best time to buy and Sell stock](https://leetcode.com/problems/best-time-to-buy-and-sell-stock/) |
| **18.Array** | [find all pairs on integer array whose sum is equal to given number](https://practice.geeksforgeeks.org/problems/count-pairs-with-given-sum5022/1) |
| **19.Array** | [find common elements In 3 sorted arrays](https://practice.geeksforgeeks.org/problems/common-elements1132/1) |
| **20.Array** | [Rearrange the array in alternating positive and negative items with O(1) extra space](https://www.geeksforgeeks.org/rearrange-array-alternating-positive-negative-items-o1-extra-space/) |
| **21.Array** | [Find if there is any subarray with sum equal to 0](https://practice.geeksforgeeks.org/problems/subarray-with-0-sum/0) |
| **22.Array** | [Find factorial of a large number](https://practice.geeksforgeeks.org/problems/factorials-of-large-numbers/0) |
| **23.Array** | [find maximum product subarray](https://practice.geeksforgeeks.org/problems/maximum-product-subarray3604/1) |
| **24.Array** | [Find longest coinsecutive subsequence](https://practice.geeksforgeeks.org/problems/longest-consecutive-subsequence/0) |
| **25.Array** | [Given an array of size n and a number k, fin all elements that appear more than " n/k " times.](https://www.geeksforgeeks.org/given-an-array-of-of-size-n-finds-all-the-elements-that-appear-more-than-nk-times/) |
| **26.Array** | [Maximum profit by buying and selling a share atmost twice](https://www.geeksforgeeks.org/maximum-profit-by-buying-and-selling-a-share-at-most-twice/) |
| **27.Array** | [Find whether an array is a subset of another array](https://practice.geeksforgeeks.org/problems/array-subset-of-another-array/0) |
| **28.Array** | [Find the triplet that sum to a given value](https://practice.geeksforgeeks.org/problems/triplet-sum-in-array/0) |
| **29.Array** | [Trapping Rain water problem](https://practice.geeksforgeeks.org/problems/trapping-rain-water/0) |
| **30.Array** | [Chocolate Distribution problem](https://practice.geeksforgeeks.org/problems/chocolate-distribution-problem/0) |
| **31.Array** | [Smallest Subarray with sum greater than a given value](https://practice.geeksforgeeks.org/problems/smallest-subarray-with-sum-greater-than-x/0) |
| **32.Array** | [Three way partitioning of an array around a given value](https://practice.geeksforgeeks.org/problems/three-way-partitioning/1) |
| **33.Array** | [Minimum swaps required bring elements less equal K together](https://practice.geeksforgeeks.org/problems/minimum-swaps-required-to-bring-all-elements-less-than-or-equal-to-k-together/0) |
| **34.Array** | [Minimum no. of operations required to make an array palindrome](https://practice.geeksforgeeks.org/problems/palindromic-array/0) |
| **35.Array** | [Median of 2 sorted arrays of equal size](https://practice.geeksforgeeks.org/problems/find-the-median0527/1) |
| **36.Array** | [Median of 2 sorted arrays of different size](https://www.geeksforgeeks.org/median-of-two-sorted-arrays-of-different-sizes/) |
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| **Matrix** | [Spiral traversal on a Matrix](https://practice.geeksforgeeks.org/problems/spirally-traversing-a-matrix/0) |
| **Matrix** | [Search an element in a matriix](https://leetcode.com/problems/search-a-2d-matrix/) |
| **Matrix** | [Find median in a row wise sorted matrix](https://practice.geeksforgeeks.org/problems/median-in-a-row-wise-sorted-matrix1527/1) |
| **Matrix** | [Find row with maximum no. of 1's](https://practice.geeksforgeeks.org/problems/row-with-max-1s0023/1) |
| **Matrix** | [Print elements in sorted order using row-column wise sorted matrix](https://practice.geeksforgeeks.org/problems/sorted-matrix/0) |
| **Matrix** | [Maximum size rectangle](https://practice.geeksforgeeks.org/problems/max-rectangle/1) |
| **Matrix** | [Find a specific pair in matrix](https://www.geeksforgeeks.org/find-a-specific-pair-in-matrix/) |
| **Matrix** | [Rotate matrix by 90 degrees](https://www.geeksforgeeks.org/rotate-a-matrix-by-90-degree-in-clockwise-direction-without-using-any-extra-space/) |
| **Matrix** | [Kth smallest element in a row-cpumn wise sorted matrix](https://practice.geeksforgeeks.org/problems/kth-element-in-matrix/1) |
| **Matrix** | [Common elements in all rows of a given matrix](https://www.geeksforgeeks.org/common-elements-in-all-rows-of-a-given-matrix/) |
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| **String** | [Reverse a String](https://leetcode.com/problems/reverse-string/) |
| **String** | [Check whether a String is Palindrome or not](https://practice.geeksforgeeks.org/problems/palindrome-string0817/1) |
| **String** | [Find Duplicate characters in a string](https://www.geeksforgeeks.org/print-all-the-duplicates-in-the-input-string/) |
| **String** | Why strings are immutable in Java? |
| **String** | [Write a Code to check whether one string is a rotation of another](https://www.geeksforgeeks.org/a-program-to-check-if-strings-are-rotations-of-each-other/) |
| **String** | [Write a Program to check whether a string is a valid shuffle of two strings or not](https://www.programiz.com/java-programming/examples/check-valid-shuffle-of-strings) |
| **String** | [Count and Say problem](https://leetcode.com/problems/count-and-say/) |
| **String** | [Write a program to find the longest Palindrome in a string.[ Longest palindromic Substring]](https://practice.geeksforgeeks.org/problems/longest-palindrome-in-a-string/0) |
| **String** | [Find Longest Recurring Subsequence in String](https://practice.geeksforgeeks.org/problems/longest-repeating-subsequence/0) |
| **String** | [Print all Subsequences of a string.](https://www.geeksforgeeks.org/print-subsequences-string/) |
| **String** | [Print all the permutations of the given string](https://practice.geeksforgeeks.org/problems/permutations-of-a-given-string/0) |
| **String** | [Split the Binary string into two substring with equal 0’s and 1’s](https://www.geeksforgeeks.org/split-the-binary-string-into-substrings-with-equal-number-of-0s-and-1s/) |
| **String** | [Word Wrap Problem [VERY IMP].](https://practice.geeksforgeeks.org/problems/word-wrap/0) |
| **String** | [EDIT Distance [Very Imp]](https://practice.geeksforgeeks.org/problems/edit-distance3702/1) |
| **String** | [Find next greater number with same set of digits. [Very Very IMP]](https://practice.geeksforgeeks.org/problems/next-permutation/0) |
| **String** | [Balanced Parenthesis problem.[Imp]](https://practice.geeksforgeeks.org/problems/parenthesis-checker/0) |
| **String** | [Word break Problem[ Very Imp]](https://practice.geeksforgeeks.org/problems/word-break/0) |
| **String** | [Rabin Karp Algo](https://www.geeksforgeeks.org/rabin-karp-algorithm-for-pattern-searching/) |
| **String** | [KMP Algo](https://practice.geeksforgeeks.org/problems/longest-prefix-suffix2527/1) |
| **String** | [Convert a Sentence into its equivalent mobile numeric keypad sequence.](https://www.geeksforgeeks.org/convert-sentence-equivalent-mobile-numeric-keypad-sequence/) |
| **String** | [Minimum number of bracket reversals needed to make an expression balanced.](https://practice.geeksforgeeks.org/problems/count-the-reversals/0) |
| **String** | [Count All Palindromic Subsequence in a given String.](https://practice.geeksforgeeks.org/problems/count-palindromic-subsequences/1) |
| **String** | [Count of number of given string in 2D character array](https://www.geeksforgeeks.org/find-count-number-given-string-present-2d-character-array/) |
| **String** | [Search a Word in a 2D Grid of characters.](https://practice.geeksforgeeks.org/problems/find-the-string-in-grid/0) |
| **String** | [Boyer Moore Algorithm for Pattern Searching.](https://www.geeksforgeeks.org/boyer-moore-algorithm-for-pattern-searching/) |
| **String** | [Converting Roman Numerals to Decimal](https://practice.geeksforgeeks.org/problems/roman-number-to-integer/0) |
| **String** | [Longest Common Prefix](https://leetcode.com/problems/longest-common-prefix/) |
| **String** | [Number of flips to make binary string alternate](https://practice.geeksforgeeks.org/problems/min-number-of-flips/0) |
| **String** | [Find the first repeated word in string.](https://practice.geeksforgeeks.org/problems/second-most-repeated-string-in-a-sequence/0) |
| **String** | [Minimum number of swaps for bracket balancing.](https://practice.geeksforgeeks.org/problems/minimum-swaps-for-bracket-balancing/0) |
| **String** | [Find the longest common subsequence between two strings.](https://practice.geeksforgeeks.org/problems/longest-common-subsequence/0) |
| **String** | [Program to generate all possible valid IP addresses from given string.](https://www.geeksforgeeks.org/program-generate-possible-valid-ip-addresses-given-string/) |
| **String** | [Write a program tofind the smallest window that contains all characters of string itself.](https://practice.geeksforgeeks.org/problems/smallest-distant-window/0) |
| **String** | [Rearrange characters in a string such that no two adjacent are same](https://practice.geeksforgeeks.org/problems/rearrange-characters/0) |
| **String** | [Minimum characters to be added at front to make string palindrome](https://www.geeksforgeeks.org/minimum-characters-added-front-make-string-palindrome/) |
| **String** | [Given a sequence of words, print all anagrams together](https://practice.geeksforgeeks.org/problems/k-anagrams-1/0) |
| **String** | [Find the smallest window in a string containing all characters of another string](https://practice.geeksforgeeks.org/problems/smallest-window-in-a-string-containing-all-the-characters-of-another-string/0) |
| **String** | [Recursively remove all adjacent duplicates](https://practice.geeksforgeeks.org/problems/consecutive-elements/0) |
| **String** | [String matching where one string contains wildcard characters](https://practice.geeksforgeeks.org/problems/wildcard-string-matching/0) |
| **String** | [Function to find Number of customers who could not get a computer](https://www.geeksforgeeks.org/function-to-find-number-of-customers-who-could-not-get-a-computer/) |
| **String** | [Transform One String to Another using Minimum Number of Given Operation](https://www.geeksforgeeks.org/transform-one-string-to-another-using-minimum-number-of-given-operation/) |
| **String** | [Check if two given strings are isomorphic to each other](https://practice.geeksforgeeks.org/problems/isomorphic-strings/0) |
| **String** | [Recursively print all sentences that can be formed from list of word lists](https://www.geeksforgeeks.org/recursively-print-all-sentences-that-can-be-formed-from-list-of-word-lists/) |
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| **1.Searching & Sorting** | [Find first and last positions of an element in a sorted array](https://practice.geeksforgeeks.org/problems/first-and-last-occurrences-of-x/0) |
| **2.Searching & Sorting** | [Find a Fixed Point (Value equal to index) in a given array](https://practice.geeksforgeeks.org/problems/value-equal-to-index-value1330/1) |
| **3.Searching & Sorting** | [Search in a rotated sorted array](https://leetcode.com/problems/search-in-rotated-sorted-array/) |
| **4.Searching & Sorting** | [square root of an integer](https://practice.geeksforgeeks.org/problems/count-squares3649/1) |
| **5.Searching & Sorting** | [Maximum and minimum of an array using minimum number of comparisons](https://practice.geeksforgeeks.org/problems/middle-of-three2926/1) |
| **6.Searching & Sorting** | [Optimum location of point to minimize total distance](https://www.geeksforgeeks.org/optimum-location-point-minimize-total-distance/#:~:text=We%20need%20to%20find%20a,set%20of%20points%20is%20minimum.&text=In%20above%20figure%20optimum%20location,is%20minimum%20obtainable%20total%20distance.) |
| **7.Searching & Sorting** | [Find the repeating and the missing](https://practice.geeksforgeeks.org/problems/find-missing-and-repeating2512/1) |
| **8.Searching & Sorting** | [find majority element](https://practice.geeksforgeeks.org/problems/majority-element/0) |
| **9.Searching & Sorting** | [Searching in an array where adjacent differ by at most k](https://www.geeksforgeeks.org/searching-array-adjacent-differ-k/) |
| **10.Searching & Sorting** | [find a pair with a given difference](https://practice.geeksforgeeks.org/problems/find-pair-given-difference/0) |
| **11.Searching & Sorting** | [find four elements that sum to a given value](https://practice.geeksforgeeks.org/problems/find-all-four-sum-numbers/0) |
| **12.Searching & Sorting** | [maximum sum such that no 2 elements are adjacent](https://practice.geeksforgeeks.org/problems/stickler-theif/0) |
| **13.Searching & Sorting** | [Count triplet with sum smaller than a given value](https://practice.geeksforgeeks.org/problems/count-triplets-with-sum-smaller-than-x5549/1) |
| **14.Searching & Sorting** | [merge 2 sorted arrays](https://practice.geeksforgeeks.org/problems/merge-two-sorted-arrays5135/1) |
| **15.Searching & Sorting** | [print all subarrays with 0 sum](https://practice.geeksforgeeks.org/problems/zero-sum-subarrays/0) |
| **16.Searching & Sorting** | [Product array Puzzle](https://practice.geeksforgeeks.org/problems/product-array-puzzle/0) |
| **17.Searching & Sorting** | [Sort array according to count of set bits](https://practice.geeksforgeeks.org/problems/sort-by-set-bit-count/0) |
| **18.Searching & Sorting** | [minimum no. of swaps required to sort the array](https://practice.geeksforgeeks.org/problems/minimum-swaps/1) |
| **19.Searching & Sorting** | [Bishu and Soldiers](https://www.hackerearth.com/practice/algorithms/searching/binary-search/practice-problems/algorithm/bishu-and-soldiers/) |
| **20.Searching & Sorting** | [Rasta and Kheshtak](https://www.hackerearth.com/practice/algorithms/searching/binary-search/practice-problems/algorithm/rasta-and-kheshtak/) |
| **21.Searching & Sorting** | [Kth smallest number again](https://www.hackerearth.com/practice/algorithms/searching/binary-search/practice-problems/algorithm/kth-smallest-number-again-2/) |
| **22.Searching & Sorting** | [Find pivot element in a sorted array](http://theoryofprogramming.com/2017/12/16/find-pivot-element-sorted-rotated-array/) |
| **23.Searching & Sorting** | [K-th Element of Two Sorted Arrays](https://practice.geeksforgeeks.org/problems/k-th-element-of-two-sorted-array/0) |
| **24.Searching & Sorting** | [Aggressive cows](https://www.spoj.com/problems/AGGRCOW/) |
| **25.Searching & Sorting** | [Book Allocation Problem](https://practice.geeksforgeeks.org/problems/allocate-minimum-number-of-pages/0) |
| **26.Searching & Sorting** | [EKOSPOJ:](https://www.spoj.com/problems/EKO/) |
| **27.Searching & Sorting** | [Job Scheduling Algo](https://www.geeksforgeeks.org/weighted-job-scheduling-log-n-time/) |
| **28.Searching & Sorting** | [Missing Number in AP](https://practice.geeksforgeeks.org/problems/arithmetic-number/0) |
| **29.Searching & Sorting** | [Smallest number with atleastn trailing zeroes infactorial](https://practice.geeksforgeeks.org/problems/smallest-factorial-number5929/1) |
| **30.Searching & Sorting** | [Painters Partition Problem:](https://practice.geeksforgeeks.org/problems/allocate-minimum-number-of-pages/0) |
| **31.Searching & Sorting** | [ROTI-Prata SPOJ](https://www.spoj.com/problems/PRATA/) |
| **32.Searching & Sorting** | [DoubleHelix SPOJ](https://www.spoj.com/problems/ANARC05B/) |
| **33.Searching & Sorting** | [Subset Sums](https://www.spoj.com/problems/SUBSUMS/) |
| **34.Searching & Sorting** | [Findthe inversion count](https://practice.geeksforgeeks.org/problems/inversion-of-array/0) |
| **35.Searching & Sorting** | [Implement Merge-sort in-place](https://www.geeksforgeeks.org/in-place-merge-sort/) |
| **36.Searching & Sorting** | [Partitioning and Sorting Arrays with Many Repeated Entries](https://www.baeldung.com/java-sorting-arrays-with-repeated-entries) |
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| **LinkedList** | [Write a Program to reverse the Linked List. (Both Iterative and recursive)](https://www.geeksforgeeks.org/reverse-a-linked-list/) |
| **LinkedList** | [Reverse a Linked List in group of Given Size. [Very Imp]](https://practice.geeksforgeeks.org/problems/reverse-a-linked-list-in-groups-of-given-size/1) |
| **LinkedList** | [Write a program to Detect loop in a linked list.](https://practice.geeksforgeeks.org/problems/detect-loop-in-linked-list/1) |
| **LinkedList** | [Write a program to Delete loop in a linked list.](https://practice.geeksforgeeks.org/problems/remove-loop-in-linked-list/1) |
| **LinkedList** | [Find the starting point of the loop.](https://www.geeksforgeeks.org/find-first-node-of-loop-in-a-linked-list/) |
| **LinkedList** | [Remove Duplicates in a sorted Linked List.](https://practice.geeksforgeeks.org/problems/remove-duplicate-element-from-sorted-linked-list/1) |
| **LinkedList** | [Remove Duplicates in a Un-sorted Linked List.](https://practice.geeksforgeeks.org/problems/remove-duplicates-from-an-unsorted-linked-list/1) |
| **LinkedList** | [Write a Program to Move the last element to Front in a Linked List.](https://www.geeksforgeeks.org/move-last-element-to-front-of-a-given-linked-list/) |
| **LinkedList** | [Add “1” to a number represented as a Linked List.](https://practice.geeksforgeeks.org/problems/add-1-to-a-number-represented-as-linked-list/1) |
| **LinkedList** | [Add two numbers represented by linked lists.](https://practice.geeksforgeeks.org/problems/add-two-numbers-represented-by-linked-lists/1) |
| **LinkedList** | [Intersection of two Sorted Linked List.](https://practice.geeksforgeeks.org/problems/intersection-of-two-sorted-linked-lists/1) |
| **LinkedList** | [Intersection Point of two Linked Lists.](https://practice.geeksforgeeks.org/problems/intersection-point-in-y-shapped-linked-lists/1) |
| **LinkedList** | [Merge Sort For Linked lists.[Very Important]](https://practice.geeksforgeeks.org/problems/sort-a-linked-list/1) |
| **LinkedList** | [Quicksort for Linked Lists.[Very Important]](https://practice.geeksforgeeks.org/problems/quick-sort-on-linked-list/1) |
| **LinkedList** | [Find the middle Element of a linked list.](https://leetcode.com/problems/middle-of-the-linked-list/) |
| **LinkedList** | [Check if a linked list is a circular linked list.](https://practice.geeksforgeeks.org/problems/circular-linked-list/1) |
| **LinkedList** | [Split a Circular linked list into two halves.](https://practice.geeksforgeeks.org/problems/split-a-circular-linked-list-into-two-halves/1) |
| **LinkedList** | [Write a Program to check whether the Singly Linked list is a palindrome or not.](https://practice.geeksforgeeks.org/problems/check-if-linked-list-is-pallindrome/1) |
| **LinkedList** | [Deletion from a Circular Linked List.](https://www.geeksforgeeks.org/deletion-circular-linked-list/) |
| **LinkedList** | [Reverse a Doubly Linked list.](https://practice.geeksforgeeks.org/problems/reverse-a-doubly-linked-list/1) |
| **LinkedList** | [Find pairs with a given sum in a DLL.](https://www.geeksforgeeks.org/find-pairs-given-sum-doubly-linked-list/) |
| **LinkedList** | [Count triplets in a sorted DLL whose sum is equal to given value “X”.](https://www.geeksforgeeks.org/count-triplets-sorted-doubly-linked-list-whose-sum-equal-given-value-x/) |
| **LinkedList** | [Sort a “k”sorted Doubly Linked list.[Very IMP]](https://www.geeksforgeeks.org/sort-k-sorted-doubly-linked-list/) |
| **LinkedList** | [Rotate DoublyLinked list by N nodes.](https://www.geeksforgeeks.org/rotate-doubly-linked-list-n-nodes/) |
| **LinkedList** | [Rotate a Doubly Linked list in group of Given Size.[Very IMP]](https://www.geeksforgeeks.org/reverse-doubly-linked-list-groups-given-size/) |
| **LinkedList** | Can we reverse a linked list in less than O(n) ? |
| **LinkedList** | Why Quicksort is preferred for. Arrays and Merge Sort for LinkedLists ? |
| **LinkedList** | [Flatten a Linked List](https://practice.geeksforgeeks.org/problems/flattening-a-linked-list/1) |
| **LinkedList** | [Sort a LL of 0's, 1's and 2's](https://practice.geeksforgeeks.org/problems/given-a-linked-list-of-0s-1s-and-2s-sort-it/1) |
| **LinkedList** | [Clone a linked list with next and random pointer](https://practice.geeksforgeeks.org/problems/clone-a-linked-list-with-next-and-random-pointer/1) |
| **LinkedList** | [Merge K sorted Linked list](https://practice.geeksforgeeks.org/problems/merge-k-sorted-linked-lists/1) |
| **LinkedList** | [Multiply 2 no. represented by LL](https://practice.geeksforgeeks.org/problems/multiply-two-linked-lists/1) |
| **LinkedList** | [Delete nodes which have a greater value on right side](https://practice.geeksforgeeks.org/problems/delete-nodes-having-greater-value-on-right/1) |
| **LinkedList** | [Segregate even and odd nodes in a Linked List](https://practice.geeksforgeeks.org/problems/segregate-even-and-odd-nodes-in-a-linked-list/0) |
| **LinkedList** | [Program for n’th node from the end of a Linked List](https://practice.geeksforgeeks.org/problems/nth-node-from-end-of-linked-list/1) |
| **LinkedList** | [Find the first non-repeating character from a stream of characters](https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream/0) |
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| **Binary Trees** | [level order traversal](https://practice.geeksforgeeks.org/problems/level-order-traversal/1) |
| **Binary Trees** | [Reverse Level Order traversal](https://practice.geeksforgeeks.org/problems/reverse-level-order-traversal/1) |
| **Binary Trees** | [Height of a tree](https://practice.geeksforgeeks.org/problems/height-of-binary-tree/1) |
| **Binary Trees** | [Diameter of a tree](https://practice.geeksforgeeks.org/problems/diameter-of-binary-tree/1) |
| **Binary Trees** | [Mirror of a tree](https://www.geeksforgeeks.org/create-a-mirror-tree-from-the-given-binary-tree/) |
| **Binary Trees** | [Inorder Traversal of a tree both using recursion and Iteration](https://www.techiedelight.com/inorder-tree-traversal-iterative-recursive/) |
| **Binary Trees** | [Preorder Traversal of a tree both using recursion and Iteration](https://www.techiedelight.com/preorder-tree-traversal-iterative-recursive/) |
| **Binary Trees** | [Postorder Traversal of a tree both using recursion and Iteration](https://www.techiedelight.com/postorder-tree-traversal-iterative-recursive/) |
| **Binary Trees** | [Left View of a tree](https://practice.geeksforgeeks.org/problems/left-view-of-binary-tree/1) |
| **Binary Trees** | [Right View of Tree](https://practice.geeksforgeeks.org/problems/right-view-of-binary-tree/1) |
| **Binary Trees** | [Top View of a tree](https://practice.geeksforgeeks.org/problems/top-view-of-binary-tree/1) |
| **Binary Trees** | [Bottom View of a tree](https://practice.geeksforgeeks.org/problems/bottom-view-of-binary-tree/1) |
| **Binary Trees** | [Zig-Zag traversal of a binary tree](https://practice.geeksforgeeks.org/problems/zigzag-tree-traversal/1) |
| **Binary Trees** | [Check if a tree is balanced or not](https://practice.geeksforgeeks.org/problems/check-for-balanced-tree/1) |
| **Binary Trees** | [Diagnol Traversal of a Binary tree](https://www.geeksforgeeks.org/diagonal-traversal-of-binary-tree/) |
| **Binary Trees** | [Boundary traversal of a Binary tree](https://practice.geeksforgeeks.org/problems/boundary-traversal-of-binary-tree/1) |
| **Binary Trees** | [Construct Binary Tree from String with Bracket Representation](https://www.geeksforgeeks.org/construct-binary-tree-string-bracket-representation/) |
| **Binary Trees** | [Convert Binary tree into Doubly Linked List](https://practice.geeksforgeeks.org/problems/binary-tree-to-dll/1) |
| **Binary Trees** | [Convert Binary tree into Sum tree](https://practice.geeksforgeeks.org/problems/transform-to-sum-tree/1) |
| **Binary Trees** | [Construct Binary tree from Inorder and preorder traversal](https://practice.geeksforgeeks.org/problems/construct-tree-1/1) |
| **Binary Trees** | [Find minimum swaps required to convert a Binary tree into BST](https://www.geeksforgeeks.org/minimum-swap-required-convert-binary-tree-binary-search-tree/#:~:text=Given%20the%20array%20representation%20of,it%20into%20Binary%20Search%20Tree.&text=Swap%201%3A%20Swap%20node%208,node%209%20with%20node%2010.) |
| **Binary Trees** | [Check if Binary tree is Sum tree or not](https://practice.geeksforgeeks.org/problems/sum-tree/1) |
| **Binary Trees** | [Check if all leaf nodes are at same level or not](https://practice.geeksforgeeks.org/problems/leaf-at-same-level/1) |
| **Binary Trees** | [Check if a Binary Tree contains duplicate subtrees of size 2 or more [ IMP ]](https://practice.geeksforgeeks.org/problems/duplicate-subtree-in-binary-tree/1) |
| **Binary Trees** | [Check if 2 trees are mirror or not](https://practice.geeksforgeeks.org/problems/check-mirror-in-n-ary-tree/0) |
| **Binary Trees** | [Sum of Nodes on the Longest path from root to leaf node](https://practice.geeksforgeeks.org/problems/sum-of-the-longest-bloodline-of-a-tree/1) |
| **Binary Trees** | [Check if given graph is tree or not. [ IMP ]](https://www.geeksforgeeks.org/check-given-graph-tree/#:~:text=Since%20the%20graph%20is%20undirected,graph%20is%20connected%2C%20otherwise%20not.) |
| **Binary Trees** | [Find Largest subtree sum in a tree](https://www.geeksforgeeks.org/find-largest-subtree-sum-tree/) |
| **Binary Trees** | [Maximum Sum of nodes in Binary tree such that no two are adjacent](https://www.geeksforgeeks.org/maximum-sum-nodes-binary-tree-no-two-adjacent/) |
| **Binary Trees** | [Print all "K" Sum paths in a Binary tree](https://www.geeksforgeeks.org/print-k-sum-paths-binary-tree/) |
| **Binary Trees** | [Find LCA in a Binary tree](https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-binary-tree/1) |
| **Binary Trees** | [Find distance between 2 nodes in a Binary tree](https://practice.geeksforgeeks.org/problems/min-distance-between-two-given-nodes-of-a-binary-tree/1) |
| **Binary Trees** | [Kth Ancestor of node in a Binary tree](https://www.geeksforgeeks.org/kth-ancestor-node-binary-tree-set-2/) |
| **Binary Trees** | [Find all Duplicate subtrees in a Binary tree [ IMP ]](https://practice.geeksforgeeks.org/problems/duplicate-subtrees/1) |
| **Binary Trees** | [Tree Isomorphism Problem](https://practice.geeksforgeeks.org/problems/check-if-tree-is-isomorphic/1) |
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| **Binary Search Trees** | [Fina a value in a BST](https://www.geeksforgeeks.org/binary-search-tree-set-1-search-and-insertion/) |
| **Binary Search Trees** | [Deletion of a node in a BST](https://leetcode.com/problems/delete-node-in-a-bst/) |
| **Binary Search Trees** | [Find min and max value in a BST](https://practice.geeksforgeeks.org/problems/minimum-element-in-bst/1) |
| **Binary Search Trees** | [Find inorder successor and inorder predecessor in a BST](https://practice.geeksforgeeks.org/problems/predecessor-and-successor/1) |
| **Binary Search Trees** | [Check if a tree is a BST or not](https://practice.geeksforgeeks.org/problems/check-for-bst/1) |
| **Binary Search Trees** | [Populate Inorder successor of all nodes](https://practice.geeksforgeeks.org/problems/populate-inorder-successor-for-all-nodes/1) |
| **Binary Search Trees** | [Find LCA of 2 nodes in a BST](https://practice.geeksforgeeks.org/problems/lowest-common-ancestor-in-a-bst/1) |
| **Binary Search Trees** | [Construct BST from preorder traversal](https://www.geeksforgeeks.org/construct-bst-from-given-preorder-traversa/) |
| **Binary Search Trees** | [Convert Binary tree into BST](https://practice.geeksforgeeks.org/problems/binary-tree-to-bst/1) |
| **Binary Search Trees** | [Convert a normal BST into a Balanced BST](https://www.geeksforgeeks.org/convert-normal-bst-balanced-bst/) |
| **Binary Search Trees** | [Merge two BST [ V.V.V>IMP ]](https://www.geeksforgeeks.org/merge-two-balanced-binary-search-trees/) |
| **Binary Search Trees** | [Find Kth largest element in a BST](https://practice.geeksforgeeks.org/problems/kth-largest-element-in-bst/1) |
| **Binary Search Trees** | [Find Kth smallest element in a BST](https://practice.geeksforgeeks.org/problems/find-k-th-smallest-element-in-bst/1) |
| **Binary Search Trees** | [Count pairs from 2 BST whose sum is equal to given value "X"](https://practice.geeksforgeeks.org/problems/brothers-from-different-root/1) |
| **Binary Search Trees** | [Find the median of BST in O(n) time and O(1) space](https://www.geeksforgeeks.org/find-median-bst-time-o1-space/) |
| **Binary Search Trees** | [Count BST ndoes that lie in a given range](https://practice.geeksforgeeks.org/problems/count-bst-nodes-that-lie-in-a-given-range/1) |
| **Binary Search Trees** | [Replace every element with the least greater element on its right](https://www.geeksforgeeks.org/replace-every-element-with-the-least-greater-element-on-its-right/) |
| **Binary Search Trees** | [Given "n" appointments, find the conflicting appointments](https://www.geeksforgeeks.org/given-n-appointments-find-conflicting-appointments/) |
| **Binary Search Trees** | [Check preorder is valid or not](https://practice.geeksforgeeks.org/problems/preorder-to-postorder/0) |
| **Binary Search Trees** | [Check whether BST contains Dead end](https://practice.geeksforgeeks.org/problems/check-whether-bst-contains-dead-end/1) |
| **Binary Search Trees** | [Largest BST in a Binary Tree [ V.V.V.V.V IMP ]](https://practice.geeksforgeeks.org/problems/largest-bst/1) |
| **Binary Search Trees** | [Flatten BST to sorted list](https://www.geeksforgeeks.org/flatten-bst-to-sorted-list-increasing-order/) |
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| **Greedy** | [Activity Selection Problem](https://practice.geeksforgeeks.org/problems/n-meetings-in-one-room/0) |
| **Greedy** | [Job SequencingProblem](https://practice.geeksforgeeks.org/problems/job-sequencing-problem/0) |
| **Greedy** | [Huffman Coding](https://practice.geeksforgeeks.org/problems/huffman-encoding/0) |
| **Greedy** | [Water Connection Problem](https://practice.geeksforgeeks.org/problems/water-connection-problem/0) |
| **Greedy** | [Fractional Knapsack Problem](https://practice.geeksforgeeks.org/problems/fractional-knapsack/0) |
| **Greedy** | [Greedy Algorithm to find Minimum number of Coins](https://practice.geeksforgeeks.org/problems/coin-piles/0) |
| **Greedy** | [Maximum trains for which stoppage can be provided](https://www.geeksforgeeks.org/maximum-trains-stoppage-can-provided/) |
| **Greedy** | [Minimum Platforms Problem](https://practice.geeksforgeeks.org/problems/minimum-platforms/0) |
| **Greedy** | [Buy Maximum Stocks if i stocks can be bought on i-th day](https://www.geeksforgeeks.org/buy-maximum-stocks-stocks-can-bought-th-day/) |
| **Greedy** | [Find the minimum and maximum amount to buy all N candies](https://practice.geeksforgeeks.org/problems/shop-in-candy-store/0) |
| **Greedy** | [Minimize Cash Flow among a given set of friends who have borrowed money from each other](https://www.geeksforgeeks.org/minimize-cash-flow-among-given-set-friends-borrowed-money/) |
| **Greedy** | [Minimum Cost to cut a board into squares](https://www.geeksforgeeks.org/minimum-cost-cut-board-squares/) |
| **Greedy** | [Check if it is possible to survive on Island](https://www.geeksforgeeks.org/survival/) |
| **Greedy** | [Find maximum meetings in one room](https://www.geeksforgeeks.org/find-maximum-meetings-in-one-room/) |
| **Greedy** | [Maximum product subset of an array](https://www.geeksforgeeks.org/maximum-product-subset-array/) |
| **Greedy** | [Maximize array sum after K negations](https://practice.geeksforgeeks.org/problems/maximize-sum-after-k-negations/0) |
| **Greedy** | [Maximize the sum of arr[i]\*i](https://practice.geeksforgeeks.org/problems/maximize-arrii-of-an-array/0) |
| **Greedy** | [Maximum sum of absolute difference of an array](https://www.geeksforgeeks.org/maximum-sum-absolute-difference-array/) |
| **Greedy** | [Maximize sum of consecutive differences in a circular array](https://practice.geeksforgeeks.org/problems/swap-and-maximize/0) |
| **Greedy** | [Minimum sum of absolute difference of pairs of two arrays](https://www.geeksforgeeks.org/minimum-sum-absolute-difference-pairs-two-arrays/#:~:text=It%20consists%20of%20two%20steps,result%20to%20the%20sum%20S.) |
| **Greedy** | [Program for Shortest Job First (or SJF) CPU Scheduling](https://www.geeksforgeeks.org/program-for-shortest-job-first-or-sjf-cpu-scheduling-set-1-non-preemptive/) |
| **Greedy** | [Program for Least Recently Used (LRU) Page Replacement algorithm](https://practice.geeksforgeeks.org/problems/page-faults-in-lru/0) |
| **Greedy** | [Smallest subset with sum greater than all other elements](https://www.geeksforgeeks.org/smallest-subset-sum-greater-elements/) |
| **Greedy** | [Chocolate Distribution Problem](https://practice.geeksforgeeks.org/problems/chocolate-distribution-problem/0) |
| **Greedy** | [DEFKIN -Defense of a Kingdom](https://www.spoj.com/problems/DEFKIN/) |
| **Greedy** | [DIEHARD -DIE HARD](https://www.spoj.com/problems/DIEHARD/) |
| **Greedy** | [GERGOVIA -Wine trading in Gergovia](https://www.spoj.com/problems/GERGOVIA/) |
| **Greedy** | [Picking Up Chicks](https://www.spoj.com/problems/GCJ101BB/) |
| **Greedy** | [CHOCOLA –Chocolate](https://www.spoj.com/problems/CHOCOLA/) |
| **Greedy** | [ARRANGE -Arranging Amplifiers](https://www.spoj.com/problems/ARRANGE/) |
| **Greedy** | [K Centers Problem](https://www.geeksforgeeks.org/k-centers-problem-set-1-greedy-approximate-algorithm/) |
| **Greedy** | [Minimum Cost of ropes](https://practice.geeksforgeeks.org/problems/minimum-cost-of-ropes/0) |
| **Greedy** | [Find smallest number with given number of digits and sum of digits](https://practice.geeksforgeeks.org/problems/smallest-number5829/1) |
| **Greedy** | [Rearrange characters in a string such that no two adjacent are same](https://practice.geeksforgeeks.org/problems/rearrange-characters/0) |
| **Greedy** | [Find maximum sum possible equal sum of three stacks](https://www.geeksforgeeks.org/find-maximum-sum-possible-equal-sum-three-stacks/) |
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| **BackTracking** | [Rat in a maze Problem](https://practice.geeksforgeeks.org/problems/rat-in-a-maze-problem/1) |
| **BackTracking** | [Printing all solutions in N-Queen Problem](https://www.geeksforgeeks.org/printing-solutions-n-queen-problem/) |
| **BackTracking** | [Word Break Problem using Backtracking](https://practice.geeksforgeeks.org/problems/word-break-part-2/0) |
| **BackTracking** | [Remove Invalid Parentheses](https://leetcode.com/problems/remove-invalid-parentheses/) |
| **BackTracking** | [Sudoku Solver](https://practice.geeksforgeeks.org/problems/solve-the-sudoku/0) |
| **BackTracking** | [m Coloring Problem](https://practice.geeksforgeeks.org/problems/m-coloring-problem/0) |
| **BackTracking** | [Print all palindromic partitions of a string](https://www.geeksforgeeks.org/given-a-string-print-all-possible-palindromic-partition/) |
| **BackTracking** | [Subset Sum Problem](https://practice.geeksforgeeks.org/problems/subset-sum-problem2014/1) |
| **BackTracking** | [The Knight’s tour problem](https://www.geeksforgeeks.org/the-knights-tour-problem-backtracking-1/) |
| **BackTracking** | [Tug of War](https://www.geeksforgeeks.org/tug-of-war/) |
| **BackTracking** | [Find shortest safe route in a path with landmines](https://www.geeksforgeeks.org/find-shortest-safe-route-in-a-path-with-landmines/) |
| **BackTracking** | [Combinational Sum](https://practice.geeksforgeeks.org/problems/combination-sum/0) |
| **BackTracking** | [Find Maximum number possible by doing at-most K swaps](https://practice.geeksforgeeks.org/problems/largest-number-in-k-swaps/0) |
| **BackTracking** | [Print all permutations of a string](https://practice.geeksforgeeks.org/problems/permutations-of-a-given-string/0) |
| **BackTracking** | [Find if there is a path of more than k length from a source](https://www.geeksforgeeks.org/find-if-there-is-a-path-of-more-than-k-length-from-a-source/) |
| **BackTracking** | [Longest Possible Route in a Matrix with Hurdles](https://www.geeksforgeeks.org/longest-possible-route-in-a-matrix-with-hurdles/) |
| **BackTracking** | [Print all possible paths from top left to bottom right of a mXn matrix](https://www.geeksforgeeks.org/print-all-possible-paths-from-top-left-to-bottom-right-of-a-mxn-matrix/) |
| **BackTracking** | [Partition of a set intoK subsets with equal sum](https://practice.geeksforgeeks.org/problems/partition-array-to-k-subsets/1) |
| **BackTracking** | [Find the K-th Permutation Sequence of first N natural numbers](https://www.geeksforgeeks.org/find-the-k-th-permutation-sequence-of-first-n-natural-numbers/) |
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| **Stacks & Queues** | [Implement Stack from Scratch](https://www.tutorialspoint.com/javaexamples/data_stack.htm) |
| **Stacks & Queues** | [Implement Queue from Scratch](https://www.geeksforgeeks.org/queue-set-1introduction-and-array-implementation/) |
| **Stacks & Queues** | [Implement 2 stack in an array](https://practice.geeksforgeeks.org/problems/implement-two-stacks-in-an-array/1) |
| **Stacks & Queues** | [find the middle element of a stack](https://www.geeksforgeeks.org/design-a-stack-with-find-middle-operation/) |
| **Stacks & Queues** | [Implement "N" stacks in an Array](https://www.geeksforgeeks.org/efficiently-implement-k-stacks-single-array/) |
| **Stacks & Queues** | [Check the expression has valid or Balanced parenthesis or not.](https://practice.geeksforgeeks.org/problems/parenthesis-checker/0) |
| **Stacks & Queues** | [Reverse a String using Stack](https://practice.geeksforgeeks.org/problems/reverse-a-string-using-stack/1) |
| **Stacks & Queues** | [Design a Stack that supports getMin() in O(1) time and O(1) extra space.](https://practice.geeksforgeeks.org/problems/special-stack/1) |
| **Stacks & Queues** | [Find the next Greater element](https://practice.geeksforgeeks.org/problems/next-larger-element/0) |
| **Stacks & Queues** | [The celebrity Problem](https://practice.geeksforgeeks.org/problems/the-celebrity-problem/1) |
| **Stacks & Queues** | [Arithmetic Expression evaluation](https://www.geeksforgeeks.org/arithmetic-expression-evalution/#:~:text=The%20stack%20organization%20is%20very,i.e.%2C%20A%20%2B%20B).) |
| **Stacks & Queues** | [Evaluation of Postfix expression](https://practice.geeksforgeeks.org/problems/evaluation-of-postfix-expression/0) |
| **Stacks & Queues** | [Implement a method to insert an element at its bottom without using any other data structure.](https://stackoverflow.com/questions/45130465/inserting-at-the-end-of-stack) |
| **Stacks & Queues** | [Reverse a stack using recursion](https://www.geeksforgeeks.org/reverse-a-stack-using-recursion/) |
| **Stacks & Queues** | [Sort a Stack using recursion](https://practice.geeksforgeeks.org/problems/sort-a-stack/1) |
| **Stacks & Queues** | [Merge Overlapping Intervals](https://practice.geeksforgeeks.org/problems/overlapping-intervals/0) |
| **Stacks & Queues** | [Largest rectangular Area in Histogram](https://practice.geeksforgeeks.org/problems/maximum-rectangular-area-in-a-histogram/0) |
| **Stacks & Queues** | [Length of the Longest Valid Substring](https://practice.geeksforgeeks.org/problems/valid-substring0624/1) |
| **Stacks & Queues** | [Expression contains redundant bracket or not](https://www.geeksforgeeks.org/expression-contains-redundant-bracket-not/) |
| **Stacks & Queues** | [Implement Stack using Queue](https://practice.geeksforgeeks.org/problems/stack-using-two-queues/1) |
| **Stacks & Queues** | [Implement Stack using Deque](https://www.geeksforgeeks.org/implement-stack-queue-using-deque/) |
| **Stacks & Queues** | [Stack Permutations (Check if an array is stack permutation of other)](https://www.geeksforgeeks.org/stack-permutations-check-if-an-array-is-stack-permutation-of-other/) |
| **Stacks & Queues** | [Implement Queue using Stack](https://practice.geeksforgeeks.org/problems/queue-using-two-stacks/1) |
| **Stacks & Queues** | [Implement "n" queue in an array](https://www.geeksforgeeks.org/efficiently-implement-k-queues-single-array/) |
| **Stacks & Queues** | [Implement a Circular queue](https://www.geeksforgeeks.org/circular-queue-set-1-introduction-array-implementation/) |
| **Stacks & Queues** | [LRU Cache Implementationa](https://practice.geeksforgeeks.org/problems/lru-cache/1) |
| **Stacks & Queues** | [Reverse a Queue using recursion](https://practice.geeksforgeeks.org/problems/queue-reversal/1) |
| **Stacks & Queues** | [Reverse the first “K” elements of a queue](https://practice.geeksforgeeks.org/problems/reverse-first-k-elements-of-queue/1) |
| **Stacks & Queues** | [Interleave the first half of the queue with second half](https://www.geeksforgeeks.org/interleave-first-half-queue-second-half/) |
| **Stacks & Queues** | [Find the first circular tour that visits all Petrol Pumps](https://practice.geeksforgeeks.org/problems/circular-tour/1) |
| **Stacks & Queues** | [Minimum time required to rot all oranges](https://practice.geeksforgeeks.org/problems/rotten-oranges/0) |
| **Stacks & Queues** | [Distance of nearest cell having 1 in a binary matrix](https://practice.geeksforgeeks.org/problems/distance-of-nearest-cell-having-1/0) |
| **Stacks & Queues** | [First negative integer in every window of size “k”](https://practice.geeksforgeeks.org/problems/first-negative-integer-in-every-window-of-size-k/0) |
| **Stacks & Queues** | [Check if all levels of two trees are anagrams or not.](https://www.geeksforgeeks.org/check-if-all-levels-of-two-trees-are-anagrams-or-not/) |
| **Stacks & Queues** | [Sum of minimum and maximum elements of all subarrays of size “k”.](https://www.geeksforgeeks.org/sum-minimum-maximum-elements-subarrays-size-k/) |
| **Stacks & Queues** | [Minimum sum of squares of character counts in a given string after removing “k” characters.](https://practice.geeksforgeeks.org/problems/game-with-string/0) |
| **Stacks & Queues** | [Queue based approach or first non-repeating character in a stream.](https://practice.geeksforgeeks.org/problems/first-non-repeating-character-in-a-stream/0) |
| **Stacks & Queues** | [Next Smaller Element](https://www.geeksforgeeks.org/next-smaller-element/) |
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| **Heap** | [Implement a Maxheap/MinHeap using arrays and recursion.](https://www.geeksforgeeks.org/building-heap-from-array/) |
| **Heap** | [Sort an Array using heap. (HeapSort)](https://www.geeksforgeeks.org/heap-sort/) |
| **Heap** | [Maximum of all subarrays of size k.](https://www.geeksforgeeks.org/sliding-window-maximum-maximum-of-all-subarrays-of-size-k/) |
| **Heap** | [“k” largest element in an array](https://practice.geeksforgeeks.org/problems/k-largest-elements4206/1) |
| **Heap** | [Kth smallest and largest element in an unsorted array](https://www.geeksforgeeks.org/kth-smallestlargest-element-unsorted-array/) |
| **Heap** | [Merge “K” sorted arrays. [ IMP ]](https://practice.geeksforgeeks.org/problems/merge-k-sorted-arrays/1) |
| **Heap** | [Merge 2 Binary Max Heaps](https://practice.geeksforgeeks.org/problems/merge-two-binary-max-heap/0) |
| **Heap** | [Kth largest sum continuous subarrays](https://www.geeksforgeeks.org/k-th-largest-sum-contiguous-subarray/) |
| **Heap** | [Leetcode- reorganize strings](https://leetcode.com/problems/reorganize-string/) |
| **Heap** | [Merge “K” Sorted Linked Lists [V.IMP]](https://practice.geeksforgeeks.org/problems/merge-k-sorted-linked-lists/1) |
| **Heap** | [Smallest range in “K” Lists](https://practice.geeksforgeeks.org/problems/find-smallest-range-containing-elements-from-k-lists/1) |
| **Heap** | [Median in a stream of Integers](https://practice.geeksforgeeks.org/problems/find-median-in-a-stream/0) |
| **Heap** | [Check if a Binary Tree is Heap](https://practice.geeksforgeeks.org/problems/is-binary-tree-heap/1) |
| **Heap** | [Connect “n” ropes with minimum cost](https://practice.geeksforgeeks.org/problems/minimum-cost-of-ropes/0) |
| **Heap** | [Convert BST to Min Heap](https://www.geeksforgeeks.org/convert-bst-min-heap/) |
| **Heap** | [Convert min heap to max heap](https://www.geeksforgeeks.org/convert-min-heap-to-max-heap/) |
| **Heap** | [Rearrange characters in a string such that no two adjacent are same.](https://practice.geeksforgeeks.org/problems/rearrange-characters/0) |
| **Heap** | [Minimum sum of two numbers formed from digits of an array](https://practice.geeksforgeeks.org/problems/minimum-sum4058/1) |
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| **Graph** | [Create a Graph, print it](https://1drv.ms/t/s!AqTOHFO77CqEiRua06v1PATyiFg5) |
| **Graph** | [Implement BFS algorithm](https://practice.geeksforgeeks.org/problems/bfs-traversal-of-graph/1) |
| **Graph** | [Implement DFS Algo](https://www.geeksforgeeks.org/depth-first-search-or-dfs-for-a-graph/) |
| **Graph** | [Detect Cycle in Directed Graph using BFS/DFS Algo](https://www.geeksforgeeks.org/detect-cycle-in-a-graph/) |
| **Graph** | [Detect Cycle in UnDirected Graph using BFS/DFS Algo](https://practice.geeksforgeeks.org/problems/detect-cycle-in-an-undirected-graph/1) |
| **Graph** | [Search in a Maze](https://practice.geeksforgeeks.org/problems/rat-in-a-maze-problem/1) |
| **Graph** | [Minimum Step by Knight](https://practice.geeksforgeeks.org/problems/steps-by-knight/0) |
| **Graph** | [flood fill algo](https://leetcode.com/problems/flood-fill/) |
| **Graph** | [Clone a graph](https://leetcode.com/problems/clone-graph/) |
| **Graph** | [Making wired Connections](https://leetcode.com/problems/number-of-operations-to-make-network-connected/) |
| **Graph** | [word Ladder](https://leetcode.com/problems/word-ladder/) |
| **Graph** | [Dijkstra algo](https://www.geeksforgeeks.org/dijkstras-shortest-path-algorithm-greedy-algo-7/) |
| **Graph** | [Implement Topological Sort](https://practice.geeksforgeeks.org/problems/topological-sort/1) |
| **Graph** | [Minimum time taken by each job to be completed given by a Directed Acyclic Graph](https://www.geeksforgeeks.org/minimum-time-taken-by-each-job-to-be-completed-given-by-a-directed-acyclic-graph/) |
| **Graph** | [Find whether it is possible to finish all tasks or not from given dependencies](https://www.geeksforgeeks.org/find-whether-it-is-possible-to-finish-all-tasks-or-not-from-given-dependencies/) |
| **Graph** | [Find the no. of Isalnds](https://practice.geeksforgeeks.org/problems/find-the-number-of-islands/1) |
| **Graph** | [Given a sorted Dictionary of an Alien Language, find order of characters](https://practice.geeksforgeeks.org/problems/alien-dictionary/1) |
| **Graph** | [Implement Kruksal’sAlgorithm](https://www.geeksforgeeks.org/kruskals-minimum-spanning-tree-algorithm-greedy-algo-2/) |
| **Graph** | [Implement Prim’s Algorithm](https://www.geeksforgeeks.org/prims-minimum-spanning-tree-mst-greedy-algo-5/) |
| **Graph** | [Total no. of Spanning tree in a graph](https://www.geeksforgeeks.org/total-number-spanning-trees-graph/) |
| **Graph** | [Implement Bellman Ford Algorithm](https://practice.geeksforgeeks.org/problems/negative-weight-cycle/0) |
| **Graph** | [Implement Floyd warshallAlgorithm](https://practice.geeksforgeeks.org/problems/implementing-floyd-warshall/0) |
| **Graph** | [Travelling Salesman Problem](https://www.geeksforgeeks.org/travelling-salesman-problem-set-1/) |
| **Graph** | [Graph ColouringProblem](https://www.geeksforgeeks.org/graph-coloring-applications/#:~:text=Graph%20coloring%20problem%20is%20to,are%20colored%20using%20same%20color.) |
| **Graph** | [Snake and Ladders Problem](https://leetcode.com/problems/snakes-and-ladders/) |
| **Graph** | [Find bridge in a graph](https://www.geeksforgeeks.org/bridge-in-a-graph/) |
| **Graph** | [Count Strongly connected Components(Kosaraju Algo)](https://practice.geeksforgeeks.org/problems/strongly-connected-components-kosarajus-algo/1) |
| **Graph** | [Check whether a graph is Bipartite or Not](https://www.geeksforgeeks.org/bipartite-graph/) |
| **Graph** | [Detect Negative cycle in a graph](https://www.geeksforgeeks.org/detect-negative-cycle-graph-bellman-ford/) |
| **Graph** | [Longest path in a Directed Acyclic Graph](https://www.geeksforgeeks.org/find-longest-path-directed-acyclic-graph/) |
| **Graph** | [Journey to the Moon](https://www.hackerrank.com/challenges/journey-to-the-moon/problem) |
| **Graph** | [Cheapest Flights Within K Stops](https://leetcode.com/problems/cheapest-flights-within-k-stops/description/) |
| **Graph** | [Oliver and the Game](https://www.hackerearth.com/practice/algorithms/graphs/topological-sort/practice-problems/algorithm/oliver-and-the-game-3/) |
| **Graph** | [Water Jug problem using BFS](https://www.geeksforgeeks.org/water-jug-problem-using-bfs/) |
| **Graph** | [Water Jug problem using BFS](https://www.geeksforgeeks.org/water-jug-problem-using-bfs/) |
| **Graph** | [Find if there is a path of more thank length from a source](https://www.geeksforgeeks.org/find-if-there-is-a-path-of-more-than-k-length-from-a-source/) |
| **Graph** | [M-ColouringProblem](https://practice.geeksforgeeks.org/problems/m-coloring-problem/0) |
| **Graph** | [Minimum edges to reverse o make path from source to destination](https://www.geeksforgeeks.org/minimum-edges-reverse-make-path-source-destination/) |
| **Graph** | [Paths to travel each nodes using each edge(Seven Bridges)](https://www.geeksforgeeks.org/paths-travel-nodes-using-edgeseven-bridges-konigsberg/) |
| **Graph** | [Vertex Cover Problem](https://www.geeksforgeeks.org/vertex-cover-problem-set-1-introduction-approximate-algorithm-2/) |
| **Graph** | [Chinese Postman or Route Inspection](https://www.geeksforgeeks.org/chinese-postman-route-inspection-set-1-introduction/) |
| **Graph** | [Number of Triangles in a Directed and Undirected Graph](https://www.geeksforgeeks.org/number-of-triangles-in-directed-and-undirected-graphs/) |
| **Graph** | [Minimise the cashflow among a given set of friends who have borrowed money from each other](https://www.geeksforgeeks.org/minimize-cash-flow-among-given-set-friends-borrowed-money/) |
| **Graph** | [Two Clique Problem](https://www.geeksforgeeks.org/two-clique-problem-check-graph-can-divided-two-cliques/) |
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| **Trie** | [Construct a trie from scratch](https://www.geeksforgeeks.org/trie-insert-and-search/) |
| **Trie** | [Find shortest unique prefix for every word in a given list](https://www.geeksforgeeks.org/find-all-shortest-unique-prefixes-to-represent-each-word-in-a-given-list/) |
| **Trie** | [Word Break Problem | (Trie solution)](https://www.geeksforgeeks.org/word-break-problem-trie-solution/) |
| **Trie** | [Given a sequence of words, print all anagrams together](https://practice.geeksforgeeks.org/problems/k-anagrams-1/0) |
| **Trie** | [Implement a Phone Directory](https://practice.geeksforgeeks.org/problems/phone-directory/0) |
| **Trie** | [Print unique rows in a given boolean matrix](https://practice.geeksforgeeks.org/problems/unique-rows-in-boolean-matrix/1) |
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| **Dynamic Programming** | [Coin ChangeProblem](https://practice.geeksforgeeks.org/problems/coin-change2448/1) |
| **Dynamic Programming** | [Knapsack Problem](https://practice.geeksforgeeks.org/problems/0-1-knapsack-problem/0) |
| **Dynamic Programming** | [Binomial CoefficientProblem](https://practice.geeksforgeeks.org/problems/ncr1019/1) |
| **Dynamic Programming** | [Permutation CoefficientProblem](https://www.geeksforgeeks.org/permutation-coefficient/) |
| **Dynamic Programming** | [Program for nth Catalan Number](https://www.geeksforgeeks.org/program-nth-catalan-number/) |
| **Dynamic Programming** | [Matrix Chain Multiplication](https://www.geeksforgeeks.org/matrix-chain-multiplication-dp-8/) |
| **Dynamic Programming** | [Edit Distance](https://practice.geeksforgeeks.org/problems/edit-distance3702/1) |
| **Dynamic Programming** | [Subset Sum Problem](https://practice.geeksforgeeks.org/problems/subset-sum-problem2014/1) |
| **Dynamic Programming** | [Friends Pairing Problem](https://practice.geeksforgeeks.org/problems/friends-pairing-problem5425/1) |
| **Dynamic Programming** | [Gold Mine Problem](https://www.geeksforgeeks.org/gold-mine-problem/) |
| **Dynamic Programming** | [Assembly Line SchedulingProblem](https://www.geeksforgeeks.org/assembly-line-scheduling-dp-34/) |
| **Dynamic Programming** | [Painting the Fenceproblem](https://practice.geeksforgeeks.org/problems/painting-the-fence3727/1) |
| **Dynamic Programming** | [Maximize The Cut Segments](https://practice.geeksforgeeks.org/problems/cutted-segments/0) |
| **Dynamic Programming** | [Longest Common Subsequence](https://practice.geeksforgeeks.org/problems/longest-common-subsequence/0) |
| **Dynamic Programming** | [Longest Repeated Subsequence](https://practice.geeksforgeeks.org/problems/longest-repeating-subsequence/0) |
| **Dynamic Programming** | [Longest Increasing Subsequence](https://practice.geeksforgeeks.org/problems/longest-increasing-subsequence/0) |
| **Dynamic Programming** | [Space Optimized Solution of LCS](https://www.geeksforgeeks.org/space-optimized-solution-lcs/) |
| **Dynamic Programming** | [LCS (Longest Common Subsequence) of three strings](https://practice.geeksforgeeks.org/problems/lcs-of-three-strings/0) |
| **Dynamic Programming** | [Maximum Sum Increasing Subsequence](https://practice.geeksforgeeks.org/problems/maximum-sum-increasing-subsequence4749/1) |
| **Dynamic Programming** | [Count all subsequences having product less than K](https://www.geeksforgeeks.org/count-subsequences-product-less-k/) |
| **Dynamic Programming** | [Longest subsequence such that difference between adjacent is one](https://practice.geeksforgeeks.org/problems/longest-subsequence-such-that-difference-between-adjacents-is-one4724/1) |
| **Dynamic Programming** | [Maximum subsequence sum such that no three are consecutive](https://www.geeksforgeeks.org/maximum-subsequence-sum-such-that-no-three-are-consecutive/) |
| **Dynamic Programming** | [Egg Dropping Problem](https://practice.geeksforgeeks.org/problems/egg-dropping-puzzle/0) |
| **Dynamic Programming** | [Maximum Length Chain of Pairs](https://practice.geeksforgeeks.org/problems/max-length-chain/1) |
| **Dynamic Programming** | [Maximum size square sub-matrix with all 1s](https://practice.geeksforgeeks.org/problems/largest-square-formed-in-a-matrix/0) |
| **Dynamic Programming** | [Maximum sum of pairs with specific difference](https://practice.geeksforgeeks.org/problems/pairs-with-specific-difference/0) |
| **Dynamic Programming** | [Min Cost PathProblem](https://practice.geeksforgeeks.org/problems/path-in-matrix3805/1) |
| **Dynamic Programming** | [Maximum difference of zeros and ones in binary string](https://practice.geeksforgeeks.org/problems/maximum-difference-of-zeros-and-ones-in-binary-string4111/1) |
| **Dynamic Programming** | [Minimum number of jumps to reach end](https://practice.geeksforgeeks.org/problems/minimum-number-of-jumps/0) |
| **Dynamic Programming** | [Minimum cost to fill given weight in a bag](https://practice.geeksforgeeks.org/problems/minimum-cost-to-fill-given-weight-in-a-bag1956/1) |
| **Dynamic Programming** | [Minimum removals from array to make max –min <= K](https://www.geeksforgeeks.org/minimum-removals-array-make-max-min-k/) |
| **Dynamic Programming** | [Longest Common Substring](https://practice.geeksforgeeks.org/problems/longest-common-substring/0) |
| **Dynamic Programming** | [Count number of ways to reacha given score in a game](https://practice.geeksforgeeks.org/problems/reach-a-given-score/0) |
| **Dynamic Programming** | [Count Balanced Binary Trees of Height h](https://practice.geeksforgeeks.org/problems/bbt-counter/0) |
| **Dynamic Programming** | [LargestSum Contiguous Subarray [V>V>V>V IMP ]](https://practice.geeksforgeeks.org/problems/kadanes-algorithm/0) |
| **Dynamic Programming** | [Smallest sum contiguous subarray](https://www.geeksforgeeks.org/smallest-sum-contiguous-subarray/) |
| **Dynamic Programming** | [Unbounded Knapsack (Repetition of items allowed)](https://practice.geeksforgeeks.org/problems/knapsack-with-duplicate-items4201/1) |
| **Dynamic Programming** | [Word Break Problem](https://practice.geeksforgeeks.org/problems/word-break/0) |
| **Dynamic Programming** | [Largest Independent Set Problem](https://www.geeksforgeeks.org/largest-independent-set-problem-dp-26/) |
| **Dynamic Programming** | [Partition problem](https://practice.geeksforgeeks.org/problems/subset-sum-problem2014/1) |
| **Dynamic Programming** | [Longest Palindromic Subsequence](https://www.geeksforgeeks.org/longest-palindromic-subsequence-dp-12/) |
| **Dynamic Programming** | [Count All Palindromic Subsequence in a given String](https://practice.geeksforgeeks.org/problems/count-palindromic-subsequences/1) |
| **Dynamic Programming** | [Longest Palindromic Substring](https://leetcode.com/problems/longest-palindromic-substring/) |
| **Dynamic Programming** | [Longest alternating subsequence](https://practice.geeksforgeeks.org/problems/longest-alternating-subsequence/0) |
| **Dynamic Programming** | [Weighted Job Scheduling](https://www.geeksforgeeks.org/weighted-job-scheduling/) |
| **Dynamic Programming** | [Coin game winner where every player has three choices](https://www.geeksforgeeks.org/coin-game-winner-every-player-three-choices/) |
| **Dynamic Programming** | [Count Derangements (Permutation such that no element appears in its original position) [ IMPORTANT ]](https://www.geeksforgeeks.org/count-derangements-permutation-such-that-no-element-appears-in-its-original-position/) |
| **Dynamic Programming** | [Maximum profit by buying and selling a share at most twice [ IMP ]](https://www.geeksforgeeks.org/maximum-profit-by-buying-and-selling-a-share-at-most-twice/) |
| **Dynamic Programming** | [Optimal Strategy for a Game](https://practice.geeksforgeeks.org/problems/optimal-strategy-for-a-game/0) |
| **Dynamic Programming** | [Optimal Binary Search Tree](https://www.geeksforgeeks.org/optimal-binary-search-tree-dp-24/) |
| **Dynamic Programming** | [Palindrome PartitioningProblem](https://practice.geeksforgeeks.org/problems/palindromic-patitioning4845/1) |
| **Dynamic Programming** | [Word Wrap Problem](https://practice.geeksforgeeks.org/problems/word-wrap/0) |
| **Dynamic Programming** | [Mobile Numeric Keypad Problem [ IMP ]](https://practice.geeksforgeeks.org/problems/mobile-numeric-keypad5456/1) |
| **Dynamic Programming** | [Boolean Parenthesization Problem](https://practice.geeksforgeeks.org/problems/boolean-parenthesization/0) |
| **Dynamic Programming** | [Largest rectangular sub-matrix whose sum is 0](https://www.geeksforgeeks.org/largest-rectangular-sub-matrix-whose-sum-0/) |
| **Dynamic Programming** | [Largest area rectangular sub-matrix with equal number of 1’s and 0’s [ IMP ]](https://www.geeksforgeeks.org/largest-area-rectangular-sub-matrix-equal-number-1s-0s/) |
| **Dynamic Programming** | [Maximum sum rectangle in a 2D matrix](https://practice.geeksforgeeks.org/problems/maximum-sum-rectangle/0) |
| **Dynamic Programming** | [Maximum profit by buying and selling a share at most k times](https://practice.geeksforgeeks.org/problems/maximum-profit4657/1) |
| **Dynamic Programming** | [Find if a string is interleaved of two other strings](https://practice.geeksforgeeks.org/problems/interleaved-strings/1) |
| **Dynamic Programming** | [Maximum Length of Pair Chain](https://leetcode.com/problems/maximum-length-of-pair-chain/) |
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| **Bit Manipulation** | [Count set bits in an integer](https://practice.geeksforgeeks.org/problems/set-bits0143/1) |
| **Bit Manipulation** | [Find the two non-repeating elements in an array of repeating elements](https://practice.geeksforgeeks.org/problems/finding-the-numbers0215/1) |
| **Bit Manipulation** | [Count number of bits to be flipped to convert A to B](https://practice.geeksforgeeks.org/problems/bit-difference/0) |
| **Bit Manipulation** | [Count total set bits in all numbers from 1 to n](https://practice.geeksforgeeks.org/problems/count-total-set-bits/0) |
| **Bit Manipulation** | [Program to find whether a no is power of two](https://practice.geeksforgeeks.org/problems/power-of-2/0) |
| **Bit Manipulation** | [Find position of the only set bit](https://practice.geeksforgeeks.org/problems/find-position-of-set-bit3706/1) |
| **Bit Manipulation** | [Copy set bits in a range](https://www.geeksforgeeks.org/copy-set-bits-in-a-range/) |
| **Bit Manipulation** | [Divide two integers without using multiplication, division and mod operator](https://www.geeksforgeeks.org/divide-two-integers-without-using-multiplication-division-mod-operator/) |
| **Bit Manipulation** | [Calculate square of a number without using \*, / and pow()](https://www.geeksforgeeks.org/calculate-square-of-a-number-without-using-and-pow/#:~:text=Given%20an%20integer%20n%2C%20calculate,*%2C%20%2F%20and%20pow().&text=A%20Simple%20Solution%20is%20to%20repeatedly%20add%20n%20to%20result.) |
| **Bit Manipulation** | [Power Set](https://practice.geeksforgeeks.org/problems/power-set4302/1) |