

## DSA Problems

S No.	Problem:	Topic
1	Reverse the array	Array
2	Find the maximum and minimum element in an array	Array
3	Find the "Kth" max and min element of an array	Array
4	Given an array which consists of only 0, 1 and 2. Sort the array without using any sorting algo	Array
5	Move all the negative elements to one side of the array	Array
6	Find the Union and Intersection of the two sorted arrays.	Array
7	Write a program to cyclically rotate an array by one.	Array
8	find Largest sum contiguous Subarray [V. IMP]	Array
9	Minimise the maximum difference between heights [V.IMP]	Array
10	Minimum no. of Jumps to reach end of an array	Array
11	find duplicate in an array of N+1 Integers	Array
12	Merge 2 sorted arrays without using Extra space.	Array
13	Kadane's Algo [V.V.V.V.V IMP]	Array
14	Merge Intervals	Array
15	Next Permutation	Array
16	Count Inversion	Array
17	Best time to buy and Sell stock	Array
18	find all pairs on integer array whose sum is equal to given number	Array
19	find common elements In 3 sorted arrays	Array
20	Rearrange the array in alternating positive and negative items with O(1) extra space	Array
21	Find if there is any subarray with sum equal to 0	Array
22	Find factorial of a large number	Array
23	find maximum product subarray	Array
24	Find longest consecutive subsequence	Array
25	Given an array of size n and a number k, find all elements that appear more than " n/k " times.	Array
26	Maximum profit by buying and selling a share at most twice	Array
27	Find whether an array is a subset of another array	Array
28	Find the triplet that sum to a given value	Array
29	Trapping Rain water problem	Array
30	Chocolate Distribution problem	Array
31	Smallest Subarray with sum greater than a given value	Array
32	Three way partitioning of an array around a given value	Array
33	Minimum swaps required bring elements less equal K together	Array
34	Minimum no. of operations required to make an array palindrome	Array
35	Median of 2 sorted arrays of equal size	Array
36	Median of 2 sorted arrays of different size	Array
37	Spiral traversal on a Matrix	Matrix
38	Search an element in a matrix	Matrix
39	Find median in a row wise sorted matrix	Matrix
40	Find row with maximum no. of 1's	Matrix
41	Print elements in sorted order using row-column wise sorted matrix	Matrix
42	Maximum size rectangle	Matrix
43	Find a specific pair in matrix	Matrix
44	Rotate matrix by 90 degrees	Matrix
45	Kth smallest element in a row-column wise sorted matrix	Matrix
46	Common elements in all rows of a given matrix	Matrix
47	Reverse a String	String
48	Check whether a String is Palindrome or not	String

49	Find Duplicate characters in a string	String
50	Why strings are immutable in Java?	String
51	Write a Code to check whether one string is a rotation of another	String
52	Write a Program to check whether a string is a valid shuffle of two strings or not	String
53	Count and Say problem	String
54	Write a program to find the longest Palindrome in a string.[ Longest palindromic Substring]	String
55	Find Longest Recurring Subsequence in String	String
56	Print all Subsequences of a string.	String
57	Print all the permutations of the given string	String
58	Split the Binary string into two substring with equal 0's and 1's	String
59	Word Wrap Problem [VERY IMP].	String
60	EDIT Distance [Very Imp]	String
61	Find next greater number with same set of digits. [Very Very IMP]	String
62	Balanced Parenthesis problem.[Imp]	String
63	Word break Problem[ Very Imp]	String
64	Rabin Karp Algo	String
65	KMP Algo	String
66	Convert a Sentence into its equivalent mobile numeric keypad sequence.	String
67	Minimum number of bracket reversals needed to make an expression balanced.	String
68	Count All Palindromic Subsequence in a given String.	String
69	Count of number of given string in 2D character array	String
70	Search a Word in a 2D Grid of characters.	String
71	Boyer Moore Algorithm for Pattern Searching.	String
72	Converting Roman Numerals to Decimal	String
73	Longest Common Prefix	String
74	Number of flips to make binary string alternate	String
75	Find the first repeated word in string.	String
76	Minimum number of swaps for bracket balancing.	String
77	Find the longest common subsequence between two strings.	String
78	Program to generate all possible valid IP addresses from given string.	String
79	Write a program to find the smallest window that contains all characters of string itself.	String
80	Rearrange characters in a string such that no two adjacent are same	String
81	Minimum characters to be added at front to make string palindrome	String
82	Given a sequence of words, print all anagrams together	String
83	Find the smallest window in a string containing all characters of another string	String
84	Recursively remove all adjacent duplicates	String
85	String matching where one string contains wildcard characters	String
86	Function to find Number of customers who could not get a computer	String
87	Transform One String to Another using Minimum Number of Given Operation	String
88	Check if two given strings are isomorphic to each other	String
89	Recursively print all sentences that can be formed from list of word lists	String
90	Find first and last positions of an element in a sorted array	Searching & Sorting
91	Find a Fixed Point (Value equal to index) in a given array	Searching & Sorting
92	Search in a rotated sorted array	Searching & Sorting
93	square root of an integer	Searching & Sorting
94	Maximum and minimum of an array using minimum number of comparisons	Searching & Sorting
95	Optimum location of point to minimize total distance	Searching & Sorting
96	Find the repeating and the missing	Searching & Sorting
97	find majority element	Searching & Sorting
98	Searching in an array where adjacent differ by at most k	Searching & Sorting
99	find a pair with a given difference	Searching & Sorting
100	find four elements that sum to a given value	Searching & Sorting

101	maximum sum such that no 2 elements are adjacent	Searching & Sorting
102	Count triplet with sum smaller than a given value	Searching & Sorting
103	merge 2 sorted arrays	Searching & Sorting
104	print all subarrays with 0 sum	Searching & Sorting
105	Product array Puzzle	Searching & Sorting
106	Sort array according to count of set bits	Searching & Sorting
107	minimum no. of swaps required to sort the array	Searching & Sorting
108	Bishu and Soldiers	Searching & Sorting
109	Rasta and Kheshtak	Searching & Sorting
110	Kth smallest number again	Searching & Sorting
111	Find pivot element in a sorted array	Searching & Sorting
112	K-th Element of Two Sorted Arrays	Searching & Sorting
113	Aggressive cows	Searching & Sorting
114	Book Allocation Problem	Searching & Sorting
115	EKOSPOJ:	Searching & Sorting
116	Job Scheduling Algo	Searching & Sorting
117	Missing Number in AP	Searching & Sorting
118	Smallest number with atleastn trailing zeroes infactorial	Searching & Sorting
119	Painters Partition Problem:	Searching & Sorting
120	ROTI-Prata SPOJ	Searching & Sorting
121	DoubleHelix SPOJ	Searching & Sorting
122	Subset Sums	Searching & Sorting
123	Findthe inversion count	Searching & Sorting
124	Implement Merge-sort in-place	Searching & Sorting
125	Partitioning and Sorting Arrays with Many Repeated Entries	Searching & Sorting
126	Write a Program to reverse the Linked List. (Both Iterative and recursive)	LinkedList
127	Reverse a Linked List in group of Given Size. [Very Imp]	LinkedList
128	Write a program to Detect loop in a linked list.	LinkedList
129	Write a program to Delete loop in a linked list.	LinkedList
130	Find the starting point of the loop.	LinkedList
131	Remove Duplicates in a sorted Linked List.	LinkedList
132	Remove Duplicates in a Un-sorted Linked List.	LinkedList
133	Write a Program to Move the last element to Front in a Linked List.	LinkedList
134	Add "1" to a number represented as a Linked List.	LinkedList
135	Add two numbers represented by linked lists.	LinkedList
136	Intersection of two Sorted Linked List.	LinkedList
137	Intersection Point of two Linked Lists.	LinkedList
138	Merge Sort For Linked lists.[Very Important]	LinkedList
139	Quicksort for Linked Lists.[Very Important]	LinkedList
140	Find the middle Element of a linked list.	LinkedList
141	Check if a linked list is a circular linked list.	LinkedList
142	Split a Circular linked list into two halves.	LinkedList
143	Write a Program to check whether the Singly Linked list is a palindrome or not.	LinkedList
144	Deletion from a Circular Linked List.	LinkedList
145	Reverse a Doubly Linked list.	LinkedList
146	Find pairs with a given sum in a DLL.	LinkedList
147	Count triplets in a sorted DLL whose sum is equal to given value "X".	LinkedList
148	Sort a "k"sorted Doubly Linked list.[Very IMP]	LinkedList
149	Rotate DoublyLinked list by N nodes.	LinkedList
150	Rotate a Doubly Linked list in group of Given Size.[Very IMP]	LinkedList
151	Can we reverse a linked list in less than O(n) ?	LinkedList
152	Why Quicksort is preferred for. Arrays and Merge Sort for LinkedLists ?	LinkedList

153	Flatten a Linked List	LinkedList
154	Sort a LL of 0's, 1's and 2's	LinkedList
155	Clone a linked list with next and random pointer	LinkedList
156	Merge K sorted Linked list	LinkedList
157	Multiply 2 no. represented by LL	LinkedList
158	Delete nodes which have a greater value on right side	LinkedList
159	Segregate even and odd nodes in a Linked List	LinkedList
160	Program for n'th node from the end of a Linked List	LinkedList
161	Find the first non-repeating character from a stream of characters	LinkedList
162	level order traversal	Binary Trees
163	Reverse Level Order traversal	Binary Trees
164	Height of a tree	Binary Trees
165	Diameter of a tree	Binary Trees
166	Mirror of a tree	Binary Trees
167	Inorder Traversal of a tree both using recursion and Iteration	Binary Trees
168	Preorder Traversal of a tree both using recursion and Iteration	Binary Trees
169	Postorder Traversal of a tree both using recursion and Iteration	Binary Trees
170	Left View of a tree	Binary Trees
171	Right View of Tree	Binary Trees
172	Top View of a tree	Binary Trees
173	Bottom View of a tree	Binary Trees
174	Zig-Zag traversal of a binary tree	Binary Trees
175	Check if a tree is balanced or not	Binary Trees
176	Diagnol Traversal of a Binary tree	Binary Trees
177	Boundary traversal of a Binary tree	Binary Trees
178	Construct Binary Tree from String with Bracket Representation	Binary Trees
179	Convert Binary tree into Doubly Linked List	Binary Trees
180	Convert Binary tree into Sum tree	Binary Trees
181	Construct Binary tree from Inorder and preorder traversal	Binary Trees
182	Find minimum swaps required to convert a Binary tree into BST	Binary Trees
183	Check if Binary tree is Sum tree or not	Binary Trees
184	Check if all leaf nodes are at same level or not	Binary Trees
185	Check if a Binary Tree contains duplicate subtrees of size 2 or more [ IMP ]	Binary Trees
186	Check if 2 trees are mirror or not	Binary Trees
187	Sum of Nodes on the Longest path from root to leaf node	Binary Trees
188	Check if given graph is tree or not. [ IMP ]	Binary Trees
189	Find Largest subtree sum in a tree	Binary Trees
190	Maximum Sum of nodes in Binary tree such that no two are adjacent	Binary Trees
191	Print all "K" Sum paths in a Binary tree	Binary Trees
192	Find LCA in a Binary tree	Binary Trees
193	Find distance between 2 nodes in a Binary tree	Binary Trees
194	Kth Ancestor of node in a Binary tree	Binary Trees
195	Find all Duplicate subtrees in a Binary tree [ IMP ]	Binary Trees
196	Tree Isomorphism Problem	Binary Trees
197	Find a value in a BST	Binary Search Trees
198	Deletion of a node in a BST	Binary Search Trees
199	Find min and max value in a BST	Binary Search Trees
200	Find inorder successor and inorder predecessor in a BST	Binary Search Trees
201	Check if a tree is a BST or not	Binary Search Trees
202	Populate Inorder successor of all nodes	Binary Search Trees
203	Find LCA of 2 nodes in a BST	Binary Search Trees
204	Construct BST from preorder traversal	Binary Search Trees

205	Convert Binary tree into BST	Binary Search Trees
206	Convert a normal BST into a Balanced BST	Binary Search Trees
207	Merge two BST [ V.V.V>IMP ]	Binary Search Trees
208	Find Kth largest element in a BST	Binary Search Trees
209	Find Kth smallest element in a BST	Binary Search Trees
210	Count pairs from 2 BST whose sum is equal to given value "X"	Binary Search Trees
211	Find the median of BST in O(n) time and O(1) space	Binary Search Trees
212	Count BST ndoes that lie in a given range	Binary Search Trees
213	Replace every element with the least greater element on its right	Binary Search Trees
214	Given "n" appointments, find the conflicting appointments	Binary Search Trees
215	Check preorder is valid or not	Binary Search Trees
216	Check whether BST contains Dead end	Binary Search Trees
217	Largest BST in a Binary Tree [ V.V.V.V.V IMP ]	Binary Search Trees
218	Flatten BST to sorted list	Binary Search Trees
219	Activity Selection Problem	Greedy
220	Job SequencingProblem	Greedy
221	Huffman Coding	Greedy
222	Water Connection Problem	Greedy
223	Fractional Knapsack Problem	Greedy
224	Greedy Algorithm to find Minimum number of Coins	Greedy
225	Maximum trains for which stoppage can be provided	Greedy
226	Minimum Platforms Problem	Greedy
227	Buy Maximum Stocks if i stocks can be bought on i-th day	Greedy
228	Find the minimum and maximum amount to buy all N candies	Greedy
229	Minimize Cash Flow among a given set of friends who have borrowed money from each other	Greedy
230	Minimum Cost to cut a board into squares	Greedy
231	Check if it is possible to survive on Island	Greedy
232	Find maximum meetings in one room	Greedy
233	Maximum product subset of an array	Greedy
234	Maximize array sum after K negations	Greedy
235	Maximize the sum of arr[i]*i	Greedy
236	Maximum sum of absolute difference of an array	Greedy
237	Maximize sum of consecutive differences in a circular array	Greedy
238	Minimum sum of absolute difference of pairs of two arrays	Greedy
239	Program for Shortest Job First (or SJF) CPU Scheduling	Greedy
240	Program for Least Recently Used (LRU) Page Replacement algorithm	Greedy
241	Smallest subset with sum greater than all other elements	Greedy
242	Chocolate Distribution Problem	Greedy
243	DEFKIN -Defense of a Kingdom	Greedy
244	DIEHARD -DIE HARD	Greedy
245	GERGOVIA -Wine trading in Gergovia	Greedy
246	Picking Up Chicks	Greedy
247	CHOCOLA –Chocolate	Greedy
248	ARRANGE -Arranging Amplifiers	Greedy
249	K Centers Problem	Greedy
250	Minimum Cost of ropes	Greedy
251	Find smallest number with given number of digits and sum of digits	Greedy
252	Rearrange characters in a string such that no two adjacent are same	Greedy
253	Find maximum sum possible equal sum of three stacks	Greedy
254	Rat in a maze Problem	BackTracking
255	Printing all solutions in N-Queen Problem	BackTracking
256	Word Break Problem using Backtracking	BackTracking

257	Remove Invalid Parentheses	BackTracking
258	Sudoku Solver	BackTracking
259	m Coloring Problem	BackTracking
260	Print all palindromic partitions of a string	BackTracking
261	Subset Sum Problem	BackTracking
262	The Knight's tour problem	BackTracking
263	Tug of War	BackTracking
264	Find shortest safe route in a path with landmines	BackTracking
265	Combinational Sum	BackTracking
266	Find Maximum number possible by doing at-most K swaps	BackTracking
267	Print all permutations of a string	BackTracking
268	Find if there is a path of more than k length from a source	BackTracking
269	Longest Possible Route in a Matrix with Hurdles	BackTracking
270	Print all possible paths from top left to bottom right of a mXn matrix	BackTracking
271	Partition of a set into K subsets with equal sum	BackTracking
272	Find the K-th Permutation Sequence of first N natural numbers	BackTracking
273	Implement Stack from Scratch	Stacks & Queues
274	Implement Queue from Scratch	Stacks & Queues
275	Implement 2 stack in an array	Stacks & Queues
276	find the middle element of a stack	Stacks & Queues
277	Implement "N" stacks in an Array	Stacks & Queues
278	Check the expression has valid or Balanced parenthesis or not.	Stacks & Queues
279	Reverse a String using Stack	Stacks & Queues
280	Design a Stack that supports getMin() in O(1) time and O(1) extra space.	Stacks & Queues
281	Find the next Greater element	Stacks & Queues
282	The celebrity Problem	Stacks & Queues
283	Arithmetic Expression evaluation	Stacks & Queues
284	Evaluation of Postfix expression	Stacks & Queues
285	Implement a method to insert an element at its bottom without using any other data structure.	Stacks & Queues
286	Reverse a stack using recursion	Stacks & Queues
287	Sort a Stack using recursion	Stacks & Queues
288	Merge Overlapping Intervals	Stacks & Queues
289	Largest rectangular Area in Histogram	Stacks & Queues
290	Length of the Longest Valid Substring	Stacks & Queues
291	Expression contains redundant bracket or not	Stacks & Queues
292	Implement Stack using Queue	Stacks & Queues
293	Implement Stack using Deque	Stacks & Queues
294	Stack Permutations (Check if an array is stack permutation of other)	Stacks & Queues
295	Implement Queue using Stack	Stacks & Queues
296	Implement "n" queue in an array	Stacks & Queues
297	Implement a Circular queue	Stacks & Queues
298	LRU Cache Implementation	Stacks & Queues
299	Reverse a Queue using recursion	Stacks & Queues
300	Reverse the first "K" elements of a queue	Stacks & Queues
301	Interleave the first half of the queue with second half	Stacks & Queues
302	Find the first circular tour that visits all Petrol Pumps	Stacks & Queues
303	Minimum time required to rot all oranges	Stacks & Queues
304	Distance of nearest cell having 1 in a binary matrix	Stacks & Queues
305	First negative integer in every window of size "k"	Stacks & Queues
306	Check if all levels of two trees are anagrams or not.	Stacks & Queues
307	Sum of minimum and maximum elements of all subarrays of size "k".	Stacks & Queues
308	Minimum sum of squares of character counts in a given string after removing "k" characters.	Stacks & Queues

309	Queue based approach or first non-repeating character in a stream.	Stacks & Queues
310	Next Smaller Element	Stacks & Queues
311	Implement a MaxHeap/MinHeap using arrays and recursion.	Heap
312	Sort an Array using heap. (HeapSort)	Heap
313	Maximum of all subarrays of size k.	Heap
314	"k" largest element in an array	Heap
315	Kth smallest and largest element in an unsorted array	Heap
316	Merge "K" sorted arrays. [ IMP ]	Heap
317	Merge 2 Binary Max Heaps	Heap
318	Kth largest sum continuous subarrays	Heap
319	Leetcode- reorganize strings	Heap
320	Merge "K" Sorted Linked Lists [V.IMP]	Heap
321	Smallest range in "K" Lists	Heap
322	Median in a stream of Integers	Heap
323	Check if a Binary Tree is Heap	Heap
324	Connect "n" ropes with minimum cost	Heap
325	Convert BST to Min Heap	Heap
326	Convert min heap to max heap	Heap
327	Rearrange characters in a string such that no two adjacent are same.	Heap
328	Minimum sum of two numbers formed from digits of an array	Heap
329	Create a Graph, print it	Graph
330	Implement BFS algorithm	Graph
331	Implement DFS Algo	Graph
332	Detect Cycle in Directed Graph using BFS/DFS Algo	Graph
333	Detect Cycle in UnDirected Graph using BFS/DFS Algo	Graph
334	Search in a Maze	Graph
335	Minimum Step by Knight	Graph
336	flood fill algo	Graph
337	Clone a graph	Graph
338	Making wired Connections	Graph
339	word Ladder	Graph
340	Dijkstra algo	Graph
341	Implement Topological Sort	Graph
342	Minimum time taken by each job to be completed given by a Directed Acyclic Graph	Graph
343	Find whether it is possible to finish all tasks or not from given dependencies	Graph
344	Find the no. of Islands	Graph
345	Given a sorted Dictionary of an Alien Language, find order of characters	Graph
346	Implement Kruksal's Algorithm	Graph
347	Implement Prim's Algorithm	Graph
348	Total no. of Spanning tree in a graph	Graph
349	Implement Bellman Ford Algorithm	Graph
350	Implement Floyd warshall Algorithm	Graph
351	Travelling Salesman Problem	Graph
352	Graph Colouring Problem	Graph
353	Snake and Ladders Problem	Graph
354	Find bridge in a graph	Graph
355	Count Strongly connected Components(Kosaraju Algo)	Graph
356	Check whether a graph is Bipartite or Not	Graph
357	Detect Negative cycle in a graph	Graph
358	Longest path in a Directed Acyclic Graph	Graph
359	Journey to the Moon	Graph
360	Cheapest Flights Within K Stops	Graph

361	Oliver and the Game	Graph
362	Water Jug problem using BFS	Graph
363	Water Jug problem using BFS	Graph
364	Find if there is a path of more than length from a source	Graph
365	M-Colouring Problem	Graph
366	Minimum edges to reverse to make path from source to destination	Graph
367	Paths to travel each node using each edge (Seven Bridges)	Graph
368	Vertex Cover Problem	Graph
369	Chinese Postman or Route Inspection	Graph
370	Number of Triangles in a Directed and Undirected Graph	Graph
371	Minimise the cashflow among a given set of friends who have borrowed money from each other	Graph
372	Two Clique Problem	Graph
373	Construct a trie from scratch	Trie
374	Find shortest unique prefix for every word in a given list	Trie
375	Word Break Problem   (Trie solution)	Trie
376	Given a sequence of words, print all anagrams together	Trie
377	Implement a Phone Directory	Trie
378	Print unique rows in a given boolean matrix	Trie
379	Coin Change Problem	Dynamic Programming
380	Knapsack Problem	Dynamic Programming
381	Binomial Coefficient Problem	Dynamic Programming
382	Permutation Coefficient Problem	Dynamic Programming
383	Program for nth Catalan Number	Dynamic Programming
384	Matrix Chain Multiplication	Dynamic Programming
385	Edit Distance	Dynamic Programming
386	Subset Sum Problem	Dynamic Programming
387	Friends Pairing Problem	Dynamic Programming
388	Gold Mine Problem	Dynamic Programming
389	Assembly Line Scheduling Problem	Dynamic Programming
390	Painting the Fence problem	Dynamic Programming
391	Maximize The Cut Segments	Dynamic Programming
392	Longest Common Subsequence	Dynamic Programming
393	Longest Repeated Subsequence	Dynamic Programming
394	Longest Increasing Subsequence	Dynamic Programming
395	Space Optimized Solution of LCS	Dynamic Programming
396	LCS (Longest Common Subsequence) of three strings	Dynamic Programming
397	Maximum Sum Increasing Subsequence	Dynamic Programming
398	Count all subsequences having product less than K	Dynamic Programming
399	Longest subsequence such that difference between adjacent is one	Dynamic Programming
400	Maximum subsequence sum such that no three are consecutive	Dynamic Programming
401	Egg Dropping Problem	Dynamic Programming
402	Maximum Length Chain of Pairs	Dynamic Programming
403	Maximum size square sub-matrix with all 1s	Dynamic Programming
404	Maximum sum of pairs with specific difference	Dynamic Programming
405	Min Cost Path Problem	Dynamic Programming
406	Maximum difference of zeros and ones in binary string	Dynamic Programming
407	Minimum number of jumps to reach end	Dynamic Programming
408	Minimum cost to fill given weight in a bag	Dynamic Programming
409	Minimum removals from array to make max - min ≤ K	Dynamic Programming
410	Longest Common Substring	Dynamic Programming
411	Count number of ways to reach a given score in a game	Dynamic Programming
412	Count Balanced Binary Trees of Height h	Dynamic Programming



413	LargestSum Contiguous Subarray [V>V>V>V IMP ]	Dynamic Programming
414	Smallest sum contiguous subarray	Dynamic Programming
415	Unbounded Knapsack (Repetition of items allowed)	Dynamic Programming
416	Word Break Problem	Dynamic Programming
417	Largest Independent Set Problem	Dynamic Programming
418	Partition problem	Dynamic Programming
419	Longest Palindromic Subsequence	Dynamic Programming
420	Count All Palindromic Subsequence in a given String	Dynamic Programming
421	Longest Palindromic Substring	Dynamic Programming
422	Longest alternating subsequence	Dynamic Programming
423	Weighted Job Scheduling	Dynamic Programming
424	Coin game winner where every player has three choices	Dynamic Programming
425	Count Derangements (Permutation such that no element appears in its original position) [ IMPOR	Dynamic Programming
426	Maximum profit by buying and selling a share at most twice [ IMP ]	Dynamic Programming
427	Optimal Strategy for a Game	Dynamic Programming
428	Optimal Binary Search Tree	Dynamic Programming
429	Palindrome PartitioningProblem	Dynamic Programming
430	Word Wrap Problem	Dynamic Programming
431	Mobile Numeric Keypad Problem [ IMP ]	Dynamic Programming
432	Boolean Parenthesization Problem	Dynamic Programming
433	Largest rectangular sub-matrix whose sum is 0	Dynamic Programming
434	Largest area rectangular sub-matrix with equal number of 1's and 0's [ IMP ]	Dynamic Programming
435	Maximum sum rectangle in a 2D matrix	Dynamic Programming
436	Maximum profit by buying and selling a share at most k times	Dynamic Programming
437	Find if a string is interleaved of two other strings	Dynamic Programming
438	Maximum Length of Pair Chain	Dynamic Programming
439	Count set bits in an integer	Bit Manipulation
440	Find the two non-repeating elements in an array of repeating elements	Bit Manipulation
441	Count number of bits to be flipped to convert A to B	Bit Manipulation
442	Count total set bits in all numbers from 1 to n	Bit Manipulation
443	Program to find whether a no is power of two	Bit Manipulation
444	Find position of the only set bit	Bit Manipulation
445	Copy set bits in a range	Bit Manipulation
446	Divide two integers without using multiplication, division and mod operator	Bit Manipulation
447	Calculate square of a number without using *, / and pow()	Bit Manipulation
448	Power Set	Bit Manipulation