## **Contents of Coderust 2.0 and Corresponding Leetcode Problems**

See: Coderust 2.0

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Topics	Problem Name	Leetcode	Tags	Similar
Arrays	Binary Search	35. Search Insert Position	bin search	
	Find Maximum in Sliding Window	239. Sliding Window Maximum	deque	480. Sliding Window Median
	Search rotated array	33. Search in Rotated Sorted Array	bin search	81. Dups Exist
	Find smallest common number	in three sorted arrays		
	Rotate Array	189. Rotate Array		
	Find low/high index	lower_bound, upper_bound		
	Move zeros to left (or right)	283. Move Zeroes	two pointers	
	Find maximum single sell profit	121. Best Time to Buy and Sell Stock	dp	122, 123, 188, 309, 714
	Implement Quicksort			
	Merge Overlapping Intervals	56. Merge Intervals	sort	57. Insert Interval
	Sum of Two Values	1. Two Sum	hash	167, 170, 653
Linked List	Reverse a singly linked list	206. Reverse Linked List		92. Reverse a list from pos m to n
	Remove Duplicates from a (unsorted) Linked List	83. Remove Duplicates from Sorted List		82. Keep only distinct ones
	Delete node with a given key	237. Delete Node in a Linked List		450. Delete Node ir a BST
	Insertion Sort of a Linked List	147. Insertion Sort List		
	Intersection Point of Two Lists	160. Intersection of Two Linked Lists		349, 350 Intersection of Two Arrays
	Nth from last node	19. Remove Nth Node From End of List	two pointers	
	Swap Nth Node with Head			24. Swap Nodes in Pairs
	Merge Two Sorted Linked Lists	21. Merge Two Sorted Lists	heap	23. Merge k Sorted Lists
	Merge Sort	148. Sort List		
	Reverse even nodes	reverse nodes at even indices		328. Odd Even Linked List
	Rotate a Linked List	61. Rotate List		
	Reverse k Elements	25. Reverse Nodes in k-Group		
	Add Two Integers (head is LSB)	2. Add Two Numbers		445. Head is MSB
	Copy linked list with arbitrary pointer	138. Copy List with Random Pointer		133. Clone Graph
Math & Stats	Find kth permutation	Given a set of n elements find their kth permutation.		215, 230, 378, 668
	Integer Division	29. Divide Two Integers	bin search	
	Pythagorean Triplets	Given an integer array find all [a^2+b^2=c^2] triplets. (gfg)		Generate these Triplets (gfg)
	All Sum Combinations	Given a positive int, print all possible sum combinations using positive ints		39, 40, 216, 377 Combination Sum
	Find Missing Number	Given an array of positive numbers, all 1 ~n are present except one. Find missing		41. Missing Positive 268. Missing Number

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	Permute String	Print all permutations of a given string.	46, 47. Permutation 567
	All Subsets	90. Subsets II	78. Subsets
	(input string) Is Number Valid?	65. Valid Number	
	Power of a Number	50. Pow(x, n)	
	Calculate Square Root	Given a double number, write a function to calculate its square root.	69. Sqrt(x)
String	Reverse words in a sentence	557. Reverse Words in a String III	151, 186
	Remove Duplicates	316. Remove Duplicate Letters	
	Remove white spaces	Given a null terminated string, remove any white spaces (tabs or spaces).	283. Move Zeros
	String Segmentation	139. Word Break	140. Word Break II
	XML to Tree	Convert an XML string to an nary tree.	
	Find all palindrome substrings	647. Palindromic Substrings	
	Regular Expression	10. Regular Expression Matching dp	44. Wildcard Matching
Trees	Check if two binary trees are identical	100. Same Tree	
	Write an Inorder Iterator for a Binary Tree	Implement a class that implements an InOrder Iterator on a Binary Tree	173. Binary Search Tree Iterator
	Iterative Inorder Traversal	94. Binary Tree Inorder Traversal	
	Inorder Successor BST	285. Inorder Successor in BST (locked)	
	Level Order Traversal of Binary Tree	102. Binary Tree Level Order <u>Traversal</u>	
	Is Binary Search Tree?	98. Validate Binary Search Tree	
	Convert Binary Tree To Doubly Linked List	Convert BT to DDL such that the order of DDL is same as in-order traversal of BT	109. Convert Sorter List to BST
	Print Tree Perimeter	545. Boundary of Binary Tree (locked)	
	Connect Same Level Siblings	117. Populating Next Right Pointers in Each Node II	116. perfect binary tree
	Serialize/Deserialize Binary Tree	297. Serialize and Deserialize Binary Tree	
	Connect All Siblings	Last node in each level should point to the first node of next level in the tree.	
	Inorder Successor BST with parent pointers	BST given parent pointers	gfg
	Nth Highest (smallest) in BST	230. Kth Smallest Element in a BST	
	Mirror binary tree nodes	Given the root node of a BT, swap the 'left' and 'right' children for each node.	
	Delete zero sum sub-trees	Given root of a binary tree, delete any subtrees whose nodes sum up to zero.	

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	N-ary Tree to Binary Tree	Convert an NT to BT and then convert this BT back to its original NT structure.		
Stacks and Queues	Stack using Queues	225. Implement Stack using Queues		
	Queue using Stacks	232. Implement Queue using Stacks		
	Expression Evaluation	Given an arithmetic expression, evaluate it.		224, 227 Basic Calculator
Graphs	Clone a Directed Graph	Given root node of a directed graph, return its deep copy		133. Clone (undirected) Graph
	Minimum Spanning Tree	Find the MST of a connected, undirected graph with weighted edges.		
	Word Chaining	Figure out whether the given words can form a circular chain.		
Back Tracking	Boggle	212. Word Search II	trie	79. Word Search (only check one)
	All Possible Parentheses	22. Generate Parentheses		
	Solve N-Queens problem	51. N-Queens		52. find the total num of distinct solutions
	Find K-sum subsets	Given an array of N positive integers, find all the subsets that Sum == K		78, 90 Subsets, 560. Subarray Sum == K
Dynamic Programming	Fibonacci numbers	Find the nth fibonacci number.		
	Largest Sum Subarray	53. Maximum Subarray	dp, d&c	410. Split Array Largest Sum
	MaxSum Subsequence - Nonadjacent Elements	find maxSum of a subsequence, no adj elements are part of this subsequence		198. House Robber ( with corner cases)
	Game Scoring: Find number of ways a player can score 'n' runs	How many ways to score n points if a player can score 1, 2, 4 points each time		70. Climbing Stairs
	Coin Changing Problem	518. Coin Change 2		322. Coin Change
	Levenshtein Distance	72. Edit Distance		161, 583, 712
Miscellaneous	Sum of Three Values	<u>15. 3Sum</u>	two pointers	16, 259
	Make Columns and Rows Zeros	73. Set Matrix Zeroes		289. Game of Life
	Search in a Matrix	240. Search a 2D Matrix II	dp, d&c	74. Search a 2D Matrix
	Implement LRU Cache	146. LRU Cache	design	460. LFU Cache
	Host Endianness	Determine the host byte order (endianness).		
	Closest Meeting Point	296. Best Meeting Point (locked)	sort	317. with obstacles

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