

Grokking the Coding Interview: Patterns for Coding Questions

Pattern: Sliding Window (11)

Maximum Sum Subarray of Size K (easy): new ([link](#))
Smallest Subarray with a given sum (easy): LC 209
Longest Substring with K Distinct Characters (medium): LC 340
Fruits into Baskets (medium): LC 904
No-repeat Substring (hard): LC 3
Longest Substring with Same Letters after Replacement (hard): LC 424
Longest Subarray with Ones after Replacement (hard): LC 1004
Problem Challenge 1: LC 567
Problem Challenge 2: LC 438
Problem Challenge 3: LC 76
Problem Challenge 4: LC 30

Pattern: Two Pointers (11)

Pair with Target Sum (easy): LC1
Remove Duplicates (easy): LC 26
Squaring a Sorted Array (easy): LC 977
Triplet Sum to Zero (medium): LC 15
Triplet Sum Close to Target (medium): LC 16
Triplets with Smaller Sum (medium): LC 259
Subarrays with Product Less than a Target (medium): LC 713
Dutch National Flag Problem (medium): LC 75
Problem Challenge 1: LC 18
Problem Challenge 2: LC 844
Problem Challenge 3: LC 581

Pattern: Fast & Slow pointers (7)

LinkedList Cycle (easy): LC 141
Start of LinkedList Cycle (medium): LC 142
Happy Number (medium): LC 202
Middle of the LinkedList (easy): LC 876
Problem Challenge 1: LC 234
Problem Challenge 2: LC 143
Problem Challenge 3: LC 457

Pattern: Merge Intervals (7)

Merge Intervals (medium): LC 56
Insert Interval (medium): LC 57
Intervals Intersection (medium): LC 986
Conflicting Appointments (medium): LC 252
Problem Challenge 1: LC 253
Problem Challenge 2: new ([link](#))
Problem Challenge 3: LC 759

Pattern: Cyclic Sort (8)

Cyclic Sort (easy): new ([link](#))
Find the Missing Number (easy): LC 268
Find all Missing Numbers (easy): LC 448
Find the Duplicate Number (easy): LC 287
Find all Duplicate Numbers (easy): LC 442
Problem Challenge 1: LC 645
Problem Challenge 2: LC 41
Problem Challenge 3: new ([link](#))

Pattern: In-place Reversal of a LinkedList (5)

Reverse a LinkedList (easy): LC 206
Reverse a Sub-list (medium): LC 92
Reverse every K-element Sub-list (medium): LC 25
Problem Challenge 1: new ([link](#))
Problem Challenge 2: LC 61

Pattern: Tree Breadth First Search (9)

Binary Tree Level Order Traversal (easy): LC 102
Reverse Level Order Traversal (easy): LC 107
Zigzag Traversal (medium): LC 103
Level Averages in a Binary Tree (easy): LC 637
Minimum Depth of a Binary Tree (easy): LC 111, LC 104
Level Order Successor (easy): new ([link](#))
Connect Level Order Siblings (medium): LC 117
Problem Challenge 1: new ([link](#))
Problem Challenge 2: LC 199

Pattern: Tree Depth First Search (7)

Binary Tree Path Sum (easy): LC 112
All Paths for a Sum (medium): LC 113, LC 257, new ([link](#))
Sum of Path Numbers (medium): LC 129
Path With Given Sequence (medium): LC 1430
Count Paths for a Sum (medium): LC 437
Problem Challenge 1: LC 543
Problem Challenge 2: LC 124

Pattern: Two Heaps (4)

Find the Median of a Number Stream (medium): LC 295
Sliding Window Median (hard): LC 480
Maximize Capital (hard): LC 502
Problem Challenge 1: LC 436

Pattern: Subsets (9)

Subsets (easy): LC 78
Subsets With Duplicates (easy): LC 90
Permutations (medium): LC 46
String Permutations by changing case (medium): LC 784
Balanced Parentheses (hard): LC 22
Unique Generalized Abbreviations (hard): LC 320
Problem Challenge 1: LC 241
Problem Challenge 2: LC 95
Problem Challenge 3: LC 96

Pattern: Modified Binary Search (10)

Order-agnostic Binary Search (easy): new (Approach 1 in [link](#))
Ceiling of a Number (medium): new ([link](#))
Next Letter (medium): LC 744
Number Range (medium): LC 34
Search in a Sorted Infinite Array (medium): LC 702
Minimum Difference Element (medium): LC 658 (k == 1)
Bitonic Array Maximum (easy): new ([link](#))
Problem Challenge 1: new ([link](#))
Problem Challenge 2: LC 33, LC 81
Problem Challenge 3: LC 153, LC 154

Pattern: Bitwise XOR (4)

Single Number (easy): LC 136

Two Single Numbers (medium): LC 260

Complement of Base 10 Number (medium): LC 476

Problem Challenge 1: LC 832

Pattern: Top 'K' Elements (14)

Top 'K' Numbers (easy): new ([link](#))

Kth Smallest Number (easy): LC 215 (smallest instead of largest)

'K' Closest Points to the Origin (easy): LC 973

Connect Ropes (easy): LC 1167

Top 'K' Frequent Numbers (medium): LC 347

Frequency Sort (medium): LC 451

Kth Largest Number in a Stream (medium): LC 703

'K' Closest Numbers (medium): LC 658

Maximum Distinct Elements (medium): new ([link](#))

Sum of Elements (medium): new ([link](#))

Rearrange String (hard): LC 767

Problem Challenge 1: LC 358

Problem Challenge 2: LC 621

Problem Challenge 3: LC 895

Pattern: K-way merge (5)

Merge K Sorted Lists (medium): LC 23

Kth Smallest Number in M Sorted Lists (Medium): new ([link](#))

Kth Smallest Number in a Sorted Matrix (Hard): LC 378

Smallest Number Range (Hard): LC 632

Problem Challenge 1: LC 373 (largest sum instead of smallest sum)

Pattern : 0/1 Knapsack (Dynamic Programming) (6)

0/1 Knapsack (medium): new ([link](#))

Equal Subset Sum Partition (medium): LC 416

Subset Sum (medium): new ([link](#))

Minimum Subset Sum Difference (hard): new ([link](#))

Problem Challenge 1: new ([link](#))

Problem Challenge 2: LC 494

Pattern: Topological Sort (Graph) (7)

Topological Sort (medium): new ([link](#))

Tasks Scheduling (medium): LC 207

Tasks Scheduling Order (medium): LC 210

All Tasks Scheduling Orders (hard): LC 210 (output all possible solutions)

Alien Dictionary (hard): LC 269

Problem Challenge 1: LC 444

Problem Challenge 2: LC 310

Miscellaneous (1)

Kth Smallest Number (hard): LC 215 (smallest instead of largest)