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Pattern-00: Sliding Window(07)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review	Notes
01	Maximum Sum Subarray of Size K (easy)	geeks	YES	YES	NA	2	2	NA
02	Smallest Subarray with a given sum (easy)	educative leet (medium)	YES	YES	NA	2	2	smallest subarray whose sum >= K
03	Longest Substring with At Most K Distinct Characters (medium)	lint	YES	YES (poor version with map) YES (Better version I coded)	NA	2	2	Solved using map. Need to understand/implement an O(n) solution and code. Must review! UPDATE -- Solved the O(n) solution. It was nice. Will be good to have another review after some days.
04	Fruits into baskets (medium)	leet	YES	YES	NA	1	1	Solved using map. Need to understand/implement an O(n) solution and code. Must review!
05	Longest Substring Without Repeating Characters (medium)	leet	YES	YES	YES	NA	NA	I solved this problem before, but I am not understanding my code!!! Now, again solved using map. Need to understand/implement an O(n) solution and code. Must review! I took help from the solution, so, it was not a glorified work of solving problem, so, I should check it back later must!!!
Ext-01	Max value from Sliding Window	leet(different problem) geeks(different problem)	YES	YES	YES	NA	NA	Monotonic Dequeue understood. Need to solve similar problems listed in the sheet
Ext-02	No of sub-arrays whose sum = K (medium)	leet	YES	YES [O(n2) solution worked]	YES	NA	NA	There is a hashmap based solution in leet link, need to understand !!
06	Longest Substring with Same Letters after Replacement (hard)	leet-424	NA	YES	NA	NA	NA	I thought a lot and made it complicated. Finally checked solution, I was very close to the solution and the key thoughts were same. Need review.
07	Longest Subarray with	leet-1004	NA	YES	NA	NA	NA	Solved in one pass. Because of similarity with the previous one (Khikz!)

	Ones after Replacement (hard)							

Pattern-01: Two Pointers(08)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Pair with Target Sum (easy)	geeks (count pairs with given sum) coderbyte (two sum problem) leet (two sum)	YES	YES	YES	YES	YES	NA	Two Pointers approach and Map approach coded
02	Remove Duplicates (easy)	83. Remove Duplicates from Sorted List 82. Remove Duplicates from Sorted List II 80. Remove Duplicates from Sorted Array II 287. Find the Duplicate Number 1089. Duplicate Zeros	NA	YES - 83 - Remove Duplicates from Sorted List YES - 82 - Remove Duplicates from Sorted List II YES - 80 - Remove Duplicates from Sorted Array II YES - 1089 - Duplicate Zeros	NA	NA	NA	NA	There are many versions of this type of problem, not sure which one to include. So, included all. Necessary Notes by Problem : (83) Simple linked list removal. Need to RECODE and Practice, error prone. See Editorial (if any) to find any cool trick related to 'Two Pointers'. (82) Lil tricky linked list removal. Need to RECODE and Practice, error prone. See Editorial (if any) to find any cool trick related to 'Two Pointers'. (80) Solved using Ad-hoc. No need to recode or check-back. Still See Editorial (if any) to find any cool trick related to 'Two Pointers'. (287) NO NEED TO CODE AGAIN Because it's so easy. BUT check the fats-slow pointer (Cycle Detection) solution in the Editorial !!!!!
02 (A)	Contains Duplicate III (very good problem--learning resource)	220. Contains Duplicate III	YES	YES	NA	NA	NA	NA	Learning resources- C++ Map Lower Bound usage C++ Set usage Java Bucket Sort - O(n)
03	Squares of a Sorted Array (easy)	leet-977	YES	YES	NA	NA	NA	NA	*** MUST THINK *** about two pointer solution!!! I solved two ways, 1) using Min Heap 2) using Sort. None of them are not so efficient (10% speed, 10% memory in leet). Need to improve using two pointer. Must be a fun think!!!
04	Triplet Sum to Zero (medium)	leet-15	YES	YES	NA	NA	NA	NA	Solved with many triel and errors. There should be some cool techniques for this common problem which I should learn to enhance

									idea... MUST REVIEW + REINVESTIGATE!!!!
05	Triplet Sum Close to Target (medium)	leet-16	NA	YES	NA	NA	NA	NA	NA
06	Triplets with Smaller Sum	geeks lint	YES	YES	NA	NA	NA	NA	NA
07	Subarrays with Product Less than a Target (medium)	leet-713	NA	YES	NA	NA	NA	NA	I couldn't solve this problem (though it was not too hard). I just copied the solution from leet editorial and understood most of it. But not getting why "ans = ans + right - left + 1;" works? Need to REVIEW MUST and there is a logN solution which I need to implement later.
08	Dutch National Flag Problem (medium)	CoderByte geeks	NA	NA	NA	NA	NA	NA	NA

Pattern-02: Fast and Slow pointers(04) ❤

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Linked List cycle detection	leet	YES	YES	NA	NA	NA	NA	NA
02	Start of LinkedList Cycle	leet-142	YES	YES	YES	NA	NA	NA	This type of problem is stupid to ask in a 40 mins interview. If someone know the solution beforehand, only then he/she can answer(this is my belief, some 1% genius can answer without knowing the solution, but that's really not normal!) However, it is an INTERESTING problem....This link was useful to understand
03	Happy Number	leet-202 geeks	YES	YES	NA	NA	NA	NA	NA
04	Middle of a Linked List	leet-876	YES	YES	NA	NA	NA	NA	Same concept applied

Pattern-03: Pattern: Merge Intervals(04)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Merge Intervals (medium)	leet	YES	YES	NA	NA	NA	NA	NA

02	Insert Intervals (Hard)	leet-52	YES	NA	NA	NA	NA	NA	NA
03	Interval List Intersections (medium)	leet-986	YES	NA	NA	NA	NA	NA	NA
04	Conflicting Appointments (medium)	geek	YES	NA	NA	NA	NA	NA	NA

Pattern-04: Cyclic Sort(05)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Cyclic Sort (easy)	geeks example leet solution of a HARD problem leet solution of an easy problem	YES	NA	NA	NA	NA	NA	NA

Pattern-05: In-place Reversal of a LinkedList(03)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	In-place reverse of a linked-list	educative leet	YES	YES	NA	NA	NA	NA	Review both recursive and iterative way
02	Reverse a sub-list	leet-92	YES	YES	NA	NA	NA	NA	Solved iteratively with "Runtime: 0 ms, faster than 100.00% of C++ online submissions for Reverse Linked List II. Memory Usage: 8.6 MB, less than 100.00% of C++ online submissions for Reverse Lnked List II."... Yayyy!!! BUT.... it took a day to come up to this solution and there are recursive explanation in leet editorial which I should check, understand and code. Also, the solution I did should be recoded. It killed me a lot!!!
03	Reverse every K-element Sub-list (medium)	leet-25 medium article geeks	YES	YES	NA	NA	NA	NA	Just used previous solution as a function and created a loop to call it as asked in the problem. It was super easy. Previous problem is the key to remember.

Pattern-06: Tree Breadth First Search(07)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Binary Tree Level Order Traversal (easy)	leet (medium)	YES	YES	NA	NA	NA	NA	NA
02	Reverse Level Order Traversal (easy)	leet-107 (easy)	YES	YES	NA	NA	NA	NA	NA
03	Zigzag Traversal (medium)	leet-103 (medium)	YES	YES	NA	NA	NA	NA	NA
04	Level Averages in a Binary Tree (easy)	leet-637 (easy)	YES	YES	NA	NA	NA	NA	NA

05	Minimum Depth of Binary Tree (easy)	leet-111 (easy)	YES	YES	NA	NA	NA	NA	NA
06	Level Order Successor (easy)	geeks lint	YES	YES	NA	NA	NA	NA	NA
07	Connect Level Order Siblings (medium)	leet-116	YES	YES	NA	NA	NA	NA	Sweet!

Pattern-07: Tree Depth First Search(05)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Binary Tree Path Sum(easy)	leet	YES	YES	NA	NA	NA	NA	Easy problem but took several attempts tp get accepted. need **PRACTICE** to write bug free code at one shot!!!
02	All Paths for a Sum (medium)	leet-113	YES	YES	NA	NA	NA	NA	Easy problem but took several attempts tp get accepted. need **PRACTICE** to write bug free code at one shot!!!
03	Sum of Path Numbers (medium)	PROBLEM NOT FOUND	NA	NA	NA	NA	NA	NA	
04	Path With Given Sequence (medium)	geeks	NA	NA	NA	NA	NA	NA	
05	Count Paths for a Sum (medium)	geeks	NA	NA	NA	NA	NA	NA	

Pattern-08: Two Heaps(03)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Find the Median of a Number Stream (medium)	leet geeks(without STL) geeks(++STL) A nice Article	YES	YES	NA	NA	NA	NA	Interesting insight in the solution. An article can be written with clear explanation
02	Sliding Window Median (hard)	leet-480	NA	YES	NA	NA	NA	NA	Solved the same way as previous problem. Instead of priority_queue, used multiset, because it allows to erase where pq doesn't allow that. ... .Practice!!!
03	Maximize Capital (hard)	leet-502	NA	NA	NA	NA	NA	NA	NA

Pattern-09: Subsets(06)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Subsets (easy)	educative (easy) leet (medium)	YES	YES	NA	NA	NA	NA	Need to read solution explained in educative. I solved it recursively, but they wrote something with BFS which might be interesting!
02	Subsets with duplicates (easy)	educative (easy) leet (medium)	YES	YES	NA	NA	NA	NA	My solution is not so good(though accepted). Need to understand better solution(using BFS) from educative same as the previous one.
03	Permutations (medium)	educative (medium) leet (medium)	YES	YES	NA	NA	NA	NA	NA
04	String permutations by changing case (medium)	geeks leet	YES	NA	NA	NA	NA	NA	NA
05	Balanced Parentheses (hard)	medium leet	YES	NA	NA	NA	NA	NA	NA
06	Unique Generalized Abbreviations (hard)	lint	YES	NA	NA	NA	NA	NA	NA

Pattern-10: Modified Binary Search(07)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01 (A)	Basic Binary Search (easy)	leet	YES	YES	NA	NA	NA	NA	NA
01 (B)	Order Agnostic Binary Search --???? (easy)		NA	NA	NA	NA	NA	NA	Problems not found, maybe it's a new problem listed in educative only
02	Ceiling of a number(medium)	algorithms_and_me	YES	NA	NA	NA	NA	NA	Is it the correct problem they are asking for?
03	Next Letter(medium)	leet	YES	NA	NA	NA	NA	NA	NA
04	Number Range(medium)	leet	YES	YES	NA	NA	NA	NA	Is it the correct problem they are asking for?
05 (A)	Search in a rotated sorted array(medium)	leet	YES	NA	NA	NA	NA	NA	NA
05 (B)	Single element in a rotated sorted array(medium)	leet	YES	NA	NA	NA	NA	NA	NA

05 (C) educative	Single in an INFINITE rotated sorted array(medium)	geeks	YES	NA	NA	NA	NA	NA	NA
06	Minimum Difference Element (medium)	TBD	NA	NA	NA	NA	NA	NA	NA
07	Bitonic Array Maximum (easy)	includehelp	NA	NA	NA	NA	NA	NA	NA

Pattern-11: Top 'K' Elements(11)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Top K Numbers(easy)	leet (Top K Frequent Elements)(medium) leet (Top K Frequent Words)(medium)	YES	YES	NA	NA	NA	NA	Nice Reading! Template about pair and priority_queue. Need to practive PQ Min/Max heap with Pair data structure
02	Kth Smallest Number (easy)	leet(medium)	YES	YES	NA	NA	NA	NA	NA
03	K' Closest Points to the Origin (easy)	leet(medium)	YES	YES	NA	NA	NA	NA	Solved with priority_queue. There is a DivNConquer solution in the editorial which might be interesting
04	K' Connect Ropes (easy)	leet(easy)	NA	NA	NA	NA	NA	NA	Solved with priority_queue. There is a DivNConquer solution in the editorial which might be interesting
05	Top 'K' Frequent Numbers (medium)	leet(medium)	NA	YES	NA	NA	NA	NA	NA
06	Frequency Sort (medium)	leet(medium)	YES	TODO	NA	NA	NA	NA	NA
07	Kth Largest Number in a Stream (medium)	leet(easy)	NA	TODO	NA	NA	NA	NA	NA
08	'K' Closest Numbers (medium)	leet(medium)	NA	TODO	NA	NA	NA	NA	NA
09	Maximum Distinct Elements (medium)	geeks	NA	TODO	NA	NA	NA	NA	Is it the correct problem?
10	Sum of Elements (medium)	PROBLEM NOT FOUND	NA	TODO	NA	NA	NA	NA	NA
11	Rearrange String (hard)	leet(medium)	NA	TODO	NA	NA	NA	NA	Is it the correct problem?

Pattern-12: K-way merge(04)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Merge K-Sorted List (medium)	leet (Hard)	YES	YES	NA	NA	NA	NA	NA
01 (Easier Version)	Merge Two Sorted List (easy)	leet (easy)	DONE	YES	NA	NA	NA	NA	NA
02	Kth Smallest Number in M Sorted Lists (medium)	leet (medium)	DONE	NA	NA	NA	NA	NA	NA

Pattern-13: 0/1 Knapsack (Dynamic Programming)(04)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01(A)	0/1 Knapsack (medium)	leet - Coin Change (Minimum No of coins required to make a sum)	DONE	YES	NA	NA	NA	NA	NA
01(B)	0/1 Knapsack (medium)	leet - Coin Change 2 (No of ways to make a sum using some coins) (Explanation)	DONE	NA	NA	NA	NA	NA	NA
02	Equal Subset Sum Partition (medium)	leet - Partition Equal Subset Sum (Explanation) educative	DONE	NA	NA	NA	NA	NA	NA
03	Subset Sum	geeks educative	NA	NA	NA	NA	NA	NA	NA
04	Minimum Subset Sum Difference	geeks	NA	NA	NA	NA	NA	NA	NA

Pattern-14: Topological Sort(06)

Topological Sort (medium) Tasks Scheduling (medium) Tasks Scheduling Order (medium) All Tasks Scheduling Orders (hard) Alien Dictionary (hard)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	Course Schedule (medium)	leet	YES	YES	NA	NA	NA	NA	Coded BFS based approach. Need to code DFS one later
02	Course Schedule II (medium)	leet	YES	YES	NA	NA	NA	NA	Coded BFS based approach. Need to code DFS one later
02	Course Schedule III (Hard)	leet	NA	NA	NA	NA	NA	NA	NA
03	Alien Dictionary (Hard)	lint	NA	NA	NA	NA	NA	NA	NA
04	Longest Increasing Path in a Matrix (Hard)	leet	NA	NA	NA	NA	NA	NA	NA
05	Sequence Reconstruction (Medium)	lint	NA	NA	NA	NA	NA	NA	NA
06	Sort Items by Groups Respecting Dependencies	lint	NA	NA	NA	NA	NA	NA	NA

	(Hard)								

Pattern-15: Miscellaneous (n)

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	K-th Smallest Number (Hard)	leet	DONE	YES	NA	NA	NA	NA	Used priority_queue and it was trivial. There is a better solution that uses Quick selection technique as used in Quick Sort (refer to the Algorithm course of Stanford which I
02	Remove Nth Node From End of List (Medium)	leet	DONE	YES	NA	NA	NA	NA	There is a One pass solution in leet editorial. *****Need***** to understand that.
03	K Closest Points to Origin (Medium)	leet	DONE	YES	NA	NA	NA	NA	Template for Min Heap with pair data type !!!!! TEMPLATE MUST!!!
04	Nex greater element-1	leet	DONE	YES	NA	NA	NA	NA	Stack based implementation
04	Nex greater element-1	leet	DONE	Work In Progress	NA	NA	NA	NA	Stack based implementation

Contest Upsolve

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	BWC-07: 1168-Optimize Water Distribution in a Village	leet	YES	NA	NA	NA	NA	NA	NA
02	WC-151: 1169-Invalid Transactions	leet	YES	NA	NA	NA	NA	NA	NA
03	WC-151: 1171-Remove Zero Sum Consecutive Nodes from Linked List	leet	YES	NA	NA	NA	NA	NA	DO IT MUST
04	WC-151: 1172-Dinner Plate Stacks	leet	NA	NA	NA	NA	NA	NA	NA

Tutorials and/or Useful Links

SL	Title	Links	Read	Code	SolUnd	ReCoded	Review1	Review2	Notes
01	C++ Pointer Tutorial	Eric Lewis' gist Very good in detail C++ pointer* and Reference&	NA	NA	NA	NA	NA	NA	NA
02	Leetcode Patterns (VERY GOOD)	csgator medium series	NA	NA	NA	NA	NA	NA	NA
03	System Design	leetcode good discussion System Design Template System Design Premier	NA	NA	NA	NA	NA	NA	NA