Striver's A2Z DSA Course

This course is made for people who want to learn DSA from A to Z for free in a well-organized and structured manner. Know More

You will just need **one** hour **daily** to practice DSA. Consistency is important because problems are not meant to **learn** but for which you will find the practice the strategies. We cannot use third party tools due to legal concerns. Also we newly added TUF+ practice links are to give you a free trial of TUF+ which is of of people asked for. If you don't want to upgrade, you can still use the TUF platform, nothing has changed.

Remember, you started using our website because of our content and not because of some third party links :)

PLACEMENTS AHEAD?
GET INTERVIEW READY WITH TUF+
- DSA
- SLD
- GOFS
- CORE SUBJECTS
- COMPANY SPECIFIC QUESTIONS
PLUS ONE-ON-ONE MENTORSHIP
ENROLL NOW!

Total Progress 0 / 455 | 0% | Easy 0 / 139 completed | Medium 0 / 187 completed | Hard 0 / 136 completed

All Problems | Revision | Difficulty | ↕ Pick Random

Step 1: Learn the basics

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Lec 1: Things to Know in C++/Java/Python or any language

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	User Input & I/O Output	Solve			-	+		Easy
	Data Types	Solve			-	+		Easy
	If Else statements	Solve			-	+		Easy
	Switch Statement	Solve			-	+		Easy
	What are arrays, strings?	Solve			-	+		Easy
	For loops	Solve			-	+		Easy
	While loops	Solve			-	+		Easy
	Functions (Pass by Reference and Value)	Solve			-	+		Easy
	Time Complexity (Learn Basics and then analyze in next Steps)	-			-	+		Easy

Lec 2: Build-up Logical Thinking

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Patterns	Solve			-	+		Easy

Lec 3: Learn STL/Java-Collections or similar thing in your language

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	C++ STL	-			-	+		Medium
	Java Collections	-			-	+		Easy

Lec 4: Know Basic Maths

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Count Digits	Solve			-	+		Easy
	Reverse a Number	Solve				+		Easy
	Check Palindrome	Solve				+		Easy
	GCD Or HCF	Solve			-	+		Easy
	Armstrong Numbers	Solve				+		Easy
	Print all Divisors	Solve			-	+		Easy
	Check for Prime	Solve			-	+		Easy

Lec 5: Learn Basic Recursion

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Understand recursion by print something N times	-			-	+		Easy
	Print name N times using recursion	-			-	+		Easy
	Print 1 to N using recursion	Solve			-	+		Easy
	Print N to 1 using recursion	Solve			-	+		Easy
	Sum of first N numbers	Solve			-	+		Easy
	Factorial of N numbers	Solve			-	+		Easy
	Reverse an array	Solve			-	+		Easy
	Check if a string is palindrome or not	Solve				+		Medium
	Fibonacci Number	Solve				+		Easy

Lec 6: Learn Basic Hashing

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Hashing Theory				-	+		Medium
	Counting frequencies of array elements	Solve			-	+		Easy
	Find the highest/lowest frequency element	Solve				+		Easy

Step 2: Learn Important Sorting Techniques

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Lec 1: Sorting-I

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Selection Sort	Solve			-	+		Easy
	Bubble Sort	Solve			-	+		Easy
	Insertion Sort	Solve			-	+		Easy

Lec 2: Sorting-II

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Merge Sort	Solve			-	+		Medium
	Recursive Bubble Sort	Solve			-	+		Easy
	Recursive Insertion Sort	Solve			-	+		Easy
	Quick Sort	Solve			-	+		Medium

Step 3 : Solve Problems on Arrays [Easy -> Medium -> Hard]

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Lec 1 Easy

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Largest Element in an Array	Solve			-	+		Easy
	Second Largest Element in an Array without sorting	Solve			-	+		Easy
	Check if the array is sorted	Solve				+		Easy
	Remove duplicates from Sorted array	Solve				+		Easy
	Left Rotate an array by one place	Solve				+		Easy
	Left rotate an array by D places	Solve				+		Medium
	Move Zeros to end	Solve				+		Easy
	Linear Search	Solve			-	+		Easy
	Find the Union	Solve				+		Medium
	Find missing number in an array	Solve				+		Easy
	Maximum Consecutive Ones	Solve				+		Easy
	Find the number that appears once, and other numbers twice.	Solve				+		Easy
	Longest subarray with given sum (positives)	Solve			-	+		Medium
	Longest subarray with sum K (Positive + Negative)	Solve			-	+		Medium

Lec 2 Medium

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	2Sum Problem	Solve				+		Medium
	Sort an array of 0's 1's and 2's	Solve				+		Medium
	Majority Element (>n/2 times)	Solve				+		Easy
	Kadane's Algorithm, maximum subarray sum	Solve				+		Medium
	Print subarray with maximum subarray sum (extended version of above problem)	Solve			-	+		Medium
	Stock Buy and Sell	Solve				+		Easy
	Rearrange the array in alternating positive and negative items	Solve				+		Medium
	Next Permutation	Solve				+		Medium
	Leaders in an Array problem	Solve			-	+		Easy
	Largest Consecutive Sequence in an Array	Solve				+		Medium
	Set Matrix Zeros	Solve				+		Medium
	Rotate Matrix by 90 degrees	Solve				+		Medium
	Print the matrix in spiral manner	Solve				+		Medium
	Count subarrays with given sum	Solve				+		Medium

Lec 3 Hard

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Pascal's Triangle	Solve				+		Medium
	Majority Element (>n/3 times)	Solve				+		Medium
	3-Sum Problem	Solve				+		Medium
	4-Sum Problem	Solve				+		Medium
	Largest Subarray with 0 Sum	Solve			-	+		Medium
	Count number of subarrays with given xor K	Solve				+		Hard
	Merge Overlapping Subintervals	Solve				+		Medium
	Merge two sorted arrays without extra space	Solve				+		Medium
	Find the repeating and missing number	Solve			-	+		Hard
	Count Inversions	Solve			-	+		Hard
	Reverse Pairs	Solve				+		Hard
	Maximum Product Subarray	Solve				+		Medium

Step 4 : Binary Search [1D, 2D Arrays, Search Space]

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Lec 1 BS on 1D Arrays

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Binary Search to find X in sorted array	Solve				+		Easy
	Implement Lower Bound	Solve			-	+		Easy
	Implement Upper Bound	Solve			-	+		Easy
	Search Insert Position	Solve				+		Easy
	Floor/Ceil in Sorted Array	Solve			-	+		Medium
	Find the first or last occurrence of a given number in a sorted array	Solve				+		Medium
	Count occurrences of a number in a sorted array with duplicates	Solve			-	+		Easy
	Search in Rotated Sorted Array-I	Solve				+		Medium
	Search in Rotated Sorted Array-II	Solve				+		Medium
	Find minimum in Rotated Sorted Array	Solve				+		Medium
	Find out how many times has an array been rotated	Solve				+		Easy
	Single element in a Sorted Array	Solve				+		Medium
	Find peak element	Solve				+		Medium

Lec 2 BS on Answers

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Find square root of a number in log n				-	+		Medium
	Find the N th root of a number using binary search					+		Medium
	Koko Eating Bananas					+		Hard
	Minimum days to make M bouquets					+		Hard
	Find the smallest Divisor					+		Medium
	Capacity to Ship Packages within D Days					+		Medium
	Kth Missing Positive Number					+		Easy
	Aggressive Cows				-	+		Hard
	Book Allocation Problem					+		Hard
	Split array - Largest Sum					+		Hard
	Painter's partition					+		Hard
	Minimize Max Distance to Gas Station					+		Hard
	Median of 2 sorted arrays					+		Hard
	Kth element of 2 sorted arrays				-	+		Medium

Lec 3: BS on 2D Arrays

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Find the row with maximum number of 1's				-	+		Medium
	Search in a 2-D matrix					+		Medium
	Search in a row and column wise sorted matrix					+		Medium
	Find Peak Element [2D Matrix]					+		Hard
	Matrix Median					+		Medium

Step 5 : Strings [Basic and Medium]

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Lec 1 Basic and Easy String Problems

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Remove outermost Parentheses	Solve			-	+		Easy
	Reverse words in a given string / Palindrome Check	Solve			-	+		Medium
	Largest odd number in a string	Solve			-	+		Easy
	Longest Common Prefix	Solve			-	+		Easy
	Isomorphic String	Solve			-	+		Easy
	check whether one string is a rotation of another	Solve			-	+		Medium
	Check if two strings are anagram of each other	Solve			-	+		Easy

Lec 2: Medium String Problems

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Status	Problem	TUF+	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Sort Characters by frequency	Solve			-	+		Medium
	Maximum Nesting Depth of Parentheses				-	+		Easy
	Roman Number to Integer and vice versa	-			-	+		Easy
	Implement Atoi	Solve			-	+		Medium
	Count Number of Substrings	-			-	+		Medium
	Longest Palindromic Substring(Can it without DP)	-			-	+		Medium
	Sum of Beauty of all substring	Solve			-	+		Medium
	Reverse Every Word in A String	Solve			-	+		Medium

Step 6 : Learn LinkedList [Single LL, Double LL, Medium,

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Hard Problems]

- Leo 1: Learn 1D LinkedList

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Introduction to LinkedList, learn about struct, and how to node representation	-			-	+		Easy
	Inserting a node in LinkedList	Solve				+		Easy
	Deleting a node in LinkedList	Solve				+		Medium
	Find the length of the linkedlist [learn traversal]	Solve	-		-	+		Easy
	Search an element in the LL	Solve	-		-	+		Easy

- Leo 2: Learn Doubly LinkedList

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Introduction to DLL, learn about struct, and how to node representation	Solve			-	+		Easy
	Insert a node in DLL	Solve				+		Easy
	Delete a node in DLL	Solve				+		Medium
	Reverse a DLL	Solve	-		-	+		Medium

- Leo 3: Medium Problems of LL

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Middle of a LinkedList [Tortoisehare Method]	Solve				+		Easy
	Reverse a LinkedList [Iterative]	Solve				+		Easy
	Reverse a LL [Recursive]	Solve				+		Medium
	Detect a loop in LL	Solve				+		Medium
	Find the starting point in LL	Solve				+		Medium
	Length of Loop in LL	Solve			-	+		Easy
	Check if LL is a palindrome or not	Solve				+		Medium
	Segregate odd and even nodes in LL	Solve				+		Medium
	Remove 6th node from the back of the LL	Solve				+		Medium
	Delete the middle node of LL	Solve				+		Medium
	Sort LL	Solve				+		Medium
	Sort LL of 0s 1s and 2s by changing links	Solve			-	+		Medium
	Find the intersection point of 2 LL	Solve				+		Medium
	Add 1 to a number represented by LL	Solve			-	+		Medium
	Add 2 numbers in LL	Solve				+		Medium

- Leo 4: Medium Problems of DLL

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Delete all occurrences of a key in DLL	Solve				+		Medium
	Find pairs with given sum in DLL	Solve	-		-	+		Medium
	Remove duplicates from sorted DLL	Solve			-	+		Medium

- Leo 5: Hard Problems of LL

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Reverse LL in group of given size k	Solve				+		Hard
	Rotate a LL	Solve				+		Medium
	Flattening of LL	Solve			-	+		Hard
	Clone a LinkedList with random and next pointer	Solve				+		Hard

- Step 7: Recursion [Pattern Wise]

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- Leo 1: Get a Strong Hold

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Recursion Implementation of atoi()	Solve				+		Hard
	Pow(x, n)	Solve				+		Medium
	Count Good numbers	Solve	-			+		Medium
	Sort a stack using recursion	Solve	-		-	+		Medium
	Reverse a stack using recursion	Solve	-		-	+		Easy

- Leo 2: Subsequences Pattern

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Generate all binary strings	Solve	-		-	+		Medium
	Generate Parentheses	Solve			-	+		Medium
	Print all subsequences/Power Set	Solve				+		Medium
	Learn All Patterns of Subsequences/Theory	-	-		-	+		Medium
	Count all subsequences with sum K	Solve	-		-	+		Hard
	Check if there exists a subsequence with sum K	Solve			-	+		Medium
	Combination Sum	Solve				+		Medium
	Combination Sum II	Solve				+		Medium
	Subset Sum I	Solve				+		Medium
	Subset Sum II	Solve				+		Medium
	Combination Sum - III	Solve			-	+		Hard
	Letter Combinations of a Phone number	Solve			-	+		Medium

- Leo 3: Trying out all Combos / Hard

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Palindrome Partitioning	Solve				+		Medium
	Word Search	Solve			-	+		Medium
	N-Queen	Solve				+		Hard
	Rat in a Maze	Solve			-	+		Medium
	Word Break	Solve			-	+		Medium
	M Coloring Problem	Solve				+		Hard
	Sudoku Solver	Solve				+		Hard
	Expression Add Operators	Solve	-		-	+		Hard

- Step 8 : Bit Manipulation [Concepts & Problems]

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- Leo 1: Learn Bit Manipulation

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Introduction to Bit Manipulation [Theory]	Solve			-	+		Easy
	Check if the i-th bit is set or not	Solve				+		Easy
	Check if a number is odd or not	Solve			-	+		Easy
	Check if a number is power of 2 or not	Solve				+		Easy
	Count the number of set bits	Solve			-	+		Easy
	Set/Unset the rightmost unset bit	-			-	+		Easy
	Swap two numbers	-			-	+		Easy
	Divide two integers without using multiplication, division and mod operator	Solve				+		Medium

- Leo 2: Interview Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Count number of bits to be flipped to convert A to B	Solve				+		Medium
	Find the number that appears odd number of times	Solve				+		Easy
	Power Set	Solve				+		Medium
	Find xor of numbers from L to R	Solve				+		Medium
	Find the two numbers appearing odd number of times	Solve			-	+		Easy

- Leo 3: Advanced Maths

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Print Prime Factors of a Number	Solve			-	+		Easy
	All Divisors of a Number	Solve				+		Medium
	Sieve of Eratosthenes	Solve				+		Medium
	Find Prime Factorization of a Number using Sieve	Solve			-	+		Medium
	Pow(x, n)	Solve				+		Medium

- Step 9: Stack and Queues [Learning, Pre-in-Post-ifix, Monotonic Stack, Implementation]

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- Leo 1: Learning

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Implement Stack using Arrays	Solve			-	+		Easy
	Implement Queue using Arrays	Solve			-	+		Easy
	Implement Stack using Queue	Solve				+		Medium
	Implement Queue using Stack	Solve				+		Medium
	Implement stack using LinkedList	Solve			-	+		Easy
	Implement queue using LinkedList	Solve				+		Medium
	Check for balanced parentheses	Solve			-	+		Medium
	Implement Min Stack	Solve				+		Medium

- Leo 2: Prefix, Infix, Postfix Conversion Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Infix to Postfix Conversion using Stack	Solve			-	+		Medium
	Prefix to Infix Conversion	-			-	+		Medium
	Prefix to Postfix Conversion	Solve			-	+		Medium
	Postfix to Prefix Conversion	-			-	+		Medium
	Postfix to infix	-			-	+		Medium
	Convert Infix To Prefix Notation	-			-	+		Medium

- Leo 3: Monotonic Stack/Queue Problems [VVI Imp]

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Next Greater Element	Solve				+		Easy
	Next Greater Element 2	Solve				+		Medium
	Next Smaller Element	Solve			-	+		Easy
	Number of NGEs to the right	-			-	+		Medium
	Trapping Rainwater	Solve				+		Hard
	Sum of subarray minimum	Solve				+		Medium
	Asteroid Collision	Solve				+		Medium
	Sum of subarray ranges	Solve				+		Medium
	Remove K Digits	Solve				+		Medium
	Largest rectangle in a histogram	Solve				+		Hard
	Maximal Rectangles	Solve				+		Hard

- Leo 4: Implementation Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Sliding Window maximum	Solve				+		Hard
	Stock span problem	Solve				+		Medium
	The Celebrity Problem	Solve				+		Hard
	LRU cache [IMPORTANT]	Solve				+		Medium
	LFU cache	Solve				+		Hard

- Step 10: Sliding Window & Two Pointer Combined Problems

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- Leo 1: Medium Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Longest Substring Without Repeating Characters	Solve				+		Medium
	Max Consecutive Ones III	Solve				+		Medium
	Fruit into Baskets	Solve			-	+		Medium
	Longest repeating character replacement	Solve				+		Medium
	Binary subarray with sum	Solve				+		Medium
	Count number of nice subarrays	Solve				+		Medium
	Number of substring containing all three characters	Solve				+		Medium
	Maximum point you can obtain from cards	Solve				+		Medium

- Leo 2: Hard Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Longest Substring with At Most K Distinct Characters	Solve				+		Medium
	Subarray with k different integers	Solve	-			+		Hard
	Minimum Window Substring	Solve				+		Hard
	Minimum Window Subsequence	Solve	-			+		Hard

- Step 11 : Heaps [Learning, Medium, Hard Problems]

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- Leo 1: Learning

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Introduction to Priority Queues using Binary Heaps	-			-	+		Medium
	Min Heap and Max Heap implementation	Solve			-	+		Medium
	Check if an array represents a min-heap or not	-			-	+		Medium
	Convert min heap to max heap	Solve			-	+		Medium

- Leo 2: Medium Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (Time)	Practice	Note	Revision	Difficulty
	Kth largest element in an array [use priority queue]	Solve				+		Easy
	Kth smallest element in an array [use priority queue]	-			-	+		Medium
	Sort K sorted array	-			-	+		Easy
	Merge M sorted Lists	Solve				+		Hard
	Replace each array element by its corresponding next greater	-			-	+		Medium
	Task Scheduler	Solve				+		Medium

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Hands of Straights	-				+		Medium

Lec 3: Hard Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Design twitter	Solve	-			+		Medium
	Connect '1' cages with minimal cost	Solve				+		Medium
	Kth largest element in a stream of running integers	Solve		-		+		Easy
	Maximum Sum Combination	Solve	-	-		+		Medium
	Find Median from Data Stream	Solve				+		Hard
	K most frequent elements	Solve	-	-		+		Medium

Step 12: Greedy Algorithm [Easy, Medium/Hard]

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Lec 1: Easy Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Assign Cookies	Solve				+		Easy
	Fractional Knapsack Problem	Solve			-	+		Medium
	Greedy algorithm to find minimum number of coins	Solve			-	+		Medium
	Lemonade Change	Solve				+		Easy
	Valid Parenthesis Checker	Solve				+		Medium

Lec 2: Medium/Hard

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	N meetings in one room	Solve			-	+		Medium
	Jump Game	Solve				+		Medium
	Jump Game 2	Solve				+		Medium
	Minimum number of platforms required for a railway	Solve			-	+		Medium
	Job sequencing Problem	Solve				+		Medium
	Candy	Solve				+		Hard
	Program for Shortest Job First (or SJF) CPU Scheduling	Solve			-	+		Medium
	Program for Least Recently Used (LRU) Page Replacement Algorithm	Solve		-	-	+		Medium
	Insert Interval	Solve				+		Medium
	Merge Intervals	Solve	-			+		Medium
	Non-overlapping Intervals	Solve				+		Medium

Step 13: Binary Trees [Traversals, Medium and Hard Problems]

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Lec 1: Traversals

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Introduction to Trees	-				+		Easy
	Binary Tree Representation in C++	-			-	+		Easy
	Binary Tree Representation in Java	-			-	+		Easy
	Binary Tree Traversals in Binary Tree	-	-		-	+		Easy
	Preorder Traversal of Binary Tree	Solve				+		Easy
	Inorder Traversal of Binary Tree	Solve				+		Easy
	Post order Traversal of Binary Tree	Solve				+		Easy
	Level order Traversal (Level order traversal in spiral form	Solve				+		Medium
	Iterative Preorder Traversal of Binary Tree	Solve				+		Easy
	Iterative Inorder Traversal of Binary Tree	Solve				+		Medium
	Post order Traversal of Binary Tree using 2 stack	Solve				+		Medium
	Post order Traversal of Binary Tree using 1 stack	Solve				+		Medium
	Preorder, Inorder, and Postorder Traversal in one Traversal	Solve				+		Medium

Lec 2: Medium Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Height of a Binary Tree	Solve				+		Medium
	Check if the Binary tree is height-balanced or not	Solve				+		Medium
	Diameter of Binary Tree	Solve				+		Medium
	Maximum path sum	Solve				+		Hard
	Check if two trees are identical or not	Solve				+		Medium
	Zig Zag Traversal of Binary Tree	Solve				+		Medium
	Boundary Traversal of Binary Tree	Solve				+		Medium
	Vertical Order Traversal of Binary Tree	Solve				+		Easy
	Top View of Binary Tree	Solve				+		Easy
	Bottom View of Binary Tree	Solve			-	+		Medium
	RightLeft View of Binary Tree	Solve				+		Medium
	Symmetric Binary Tree	Solve				+		Medium

Lec 3: Hard Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Root to Node Path in Binary Tree	Solve			-	+		Medium
	LCA in Binary Tree	Solve				+		Medium
	Maximum width of a Binary Tree	Solve				+		Medium
	Check for Children Sum Property	Solve			-	+		Medium
	Print all the Nodes at a distance of k in a Binary Tree	Solve				+		Medium
	Minimum time taken to BURN the Binary Tree from a Node	Solve			-	+		Hard
	Count total Nodes in a COMPLETE Binary Tree	Solve				+		Medium
	Requirements needed to construct a unique Binary Tree (Theory)	Solve			-	+		Medium
	Construct Binary Tree from Inorder and preorder	Solve				+		Hard
	Construct the Binary Tree from Postorder and Inorder Traversal	Solve				+		Hard
	Serialize and deserialize Binary Tree	Solve				+		Hard
	Morris Preorder Traversal of a Binary Tree	Solve				+		Medium
	Morris Inorder Traversal of a Binary Tree	Solve				+		Hard
	Flatten Binary Tree to LinkedList	Solve				+		Hard

Step 14: Binary Search Trees [Concept and Problems]

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Lec 1: Concepts

0 / 3

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Introduction to Binary Search Tree	-				+		Easy
	Search in a Binary Search Tree	Solve				+		Easy
	Find Min/Max in BST	-	-	-	-	+		Medium

Lec 2: Practice Problems

0 / 13

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Ceil in a Binary Search Tree	Solve			-	+		Easy
	Floor in a Binary Search Tree	Solve			-	+		Easy
	Insert a given Node in Binary Search Tree	Solve				+		Medium
	Delete a Node in Binary Search Tree	Solve				+		Medium
	Find K th smallest/largest element in BST	Solve				+		Medium
	Check if a tree is a BST or BT	Solve				+		Medium
	LCA in Binary Search Tree	Solve				+		Medium
	Construct a BST from a preorder traversal	Solve				+		Medium
	Inorder Successor/Predecessor in BST	Solve				+		Medium
	Merge 2 BST's	Solve				+		Hard
	Two Sum in BST (Check if there exists a pair with Sum X)	Solve				+		Medium
	Recover BST (Correct BST with two nodes swapped	Solve				+		Hard
	Largest BST in Binary Tree	Solve			-	+		Hard

Step 15 : Graphs [Concepts & Problems]

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Lec 1: Learning

0 / 4

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Graph and Types	-			-	+		Easy
	Graph Representation (C++	-			-	+		Easy
	Graph Representation (Java	-			-	+		Easy
	Connected Components (Logic Explanation	Solve				+		Hard
	BFS	Solve			-	+		Hard
	DFS	Solve				+		Hard

Lec 2: Problems on BFS/DFS

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Number of provinces Dsetcode	Solve				+		Medium
	Connected Components Problem in Matrix	Solve				+		Hard
	Rotten Oranges	Solve				+		Medium
	Flood fill	Solve				+		Hard
	Cycle Detection in Undirected Graph (DFS)	Solve				+		Hard
	Cycle Detection in Undirected Graph (BFS)	Solve			-	+		Hard
	0/1 Matrix (BFs Problem)	Solve				+		Medium
	Surrounded Regions (DFs)	Solve				+		Medium
	Number of Circles(Dsset Bfs implementation - multisource)	Solve				+		Medium
	Word ladder - 1	Solve				+		Medium
	Word ladder - 2	Solve				+		Hard
	Number of Distinct Islands (DFs multisource)	Solve				+		Hard
	Bipartite Graph (DFS)	Solve				+		Medium
	Cycle Detection in Directed Graph (DFS)	Solve				+		Hard

Lec 3: Topo Sort and Problems

0 / 7

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Topo Sort	Solve				+		Hard
	Kahn's Algorithm	Solve				+		Hard
	Cycle Detection in Directed Graph (BFS)	Solve				+		Hard
	Course Schedule - I	Solve				+		Hard
	Course Schedule - II	Solve				+		Hard
	Find eventual safe states	Solve				+		Hard
	Alien dictionary	Solve				+		Hard

Lec 4: Shortest Path Algorithms and Problems

0 / 13

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Shortest Path in DG with unit weights	Solve			-	+		Hard
	Shortest Path in DAG	Solve			-	+		Hard
	Djsktra's Algorithm	Solve			-	+		Hard
	Why priority Queue is used in Djsktra's Algorithm	Solve			-	+		Hard
	Shortest path in a binary maze	Solve				+		Medium
	Path with minimum effort	Solve				+		Medium
	Cheapest flights within k stops	Solve				+		Medium
	Network Delay time	Solve			-	+		Medium
	Number of ways to arrive at destination	Solve				+		Medium
	Minimum steps to reach end from start by performing multiplication and modulo operations with array elements	Solve				+		Hard
	Bellman Ford Algorithm	Solve				+		Hard
	Floyd Warshal Algorithm	Solve				+		Hard
	Find the city with the smallest number of neighbors in a threshold distance	Solve			-	+		Medium

Lec 5: Minimum Spanning Tree/Disjoint Set and Problems

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Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Minimum Spanning Tree	Solve			-	+		Hard
	Prims Algorithm	Solve				+		Hard
	Disjoint Set [Union by Rank]	Solve				+		Hard
	Disjoint Set [Union by Size]	Solve				+		Hard
	Kruskal's Algorithm	Solve				+		Hard
	Number of operations to make network connected	Solve				+		Medium
	Most stones removed with same row or column	Solve				+		Medium
	Accounts merge	Solve				+		Medium
	Number of island - I	Solve				+		Hard
	Making a large island	Solve				+		Hard
	Swim in rising water	Solve			-	+		Hard

Lec 6: Other Algorithms

0 / 3

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Bridges in Graph	Solve				+		Hard
	Articulation Point	Solve			-	+		Hard
	Kosaraju's Algorithm	Solve				+		Hard

Step 16 : Dynamic Programming [Patterns and Problems]

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Lec 1: Introduction to DP

0 / 1

Status	Problem	TLE?	Resource (Mem)	Resource (time)	Practice	Note	Revision	Difficulty
	Dynamic Programming Introduction	-				+		Medium

- Leo 2: 1D DP 0 / 5

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Climbing Stairs	Solve	Free	Free		+		Medium
	Frog Jump(DP-1)	Solve	Free	Free		+		Medium
	Frog Jump with K distances(DP-4)	Solve	Free	Free	-	+		Medium
	Maximum sum of non-adjacent elements(DP-5)	Solve	Free	Free		+		Medium
	House Robber (DP-6)	Solve	Free	Free		+		Medium

- Leo 3: 2D/3D DP and DP on Grids 0 / 7

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Ninja's Training (DP-7)	Solve	Free	Free	-	+		Medium
	Grid Unique Paths - (DP on Grids (DP8)	Solve	Free	Free		+		Medium
	Grid Unique Paths 2 (DP-9)	Solve	Free	Free		+		Medium
	Minimum path sum in Grid (DP-10)	Solve	Free	Free		+		Medium
	Minimum path sum in Triangular Grid (DP-11)	Solve	Free	Free		+		Medium
	Minimum/Maximum Falling Path Sum(DP-12)	Solve	Free	Free		+		Medium
	3 x2 DP: Ninja and his friends (DP-13)	Solve	Free	Free	-	+		Medium

- Leo 4: DP on Subsequences 0 / 9

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Subset sum equal to target (DP-14)	Solve	Free	Free	-	+		Medium
	Partition Equal Subset Sum (DP-15)	Solve	Free	Free		+		Medium
	Partition Set into 2 Subsets With Min Absolute Sum (DP-16)	Solve	Free	Free		+		Medium
	Count Subsets with Sum K (DP-17)	Solve	Free	Free	-	+		Medium
	Count Partitions with Given Difference (DP - 18)	Solve	Free	Free	-	+		Medium
	Assign Cookies	Solve	Free	Free		+		Hard
	Minimum Coins (DP - 20)	Solve	Free	Free		+		Hard
	Target Sum (DP - 21)	Solve	Free	Free		+		Medium
	Coin Changes I (DP - 22)	Solve	Free	Free		+		Hard
	Unbounded Knapsack (DP - 23)	Solve	Free	Free		+		Hard
	Rod Cutting Problem (DP - 24)	Solve	Free	Free	-	+		Hard

- Leo 5: DP on Strings 0 / 10

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Longest Common Subsequence (DP - 26)	Solve	Free	Free		+		Hard
	Print Longest Common Subsequence (DP - 28)	Solve	Free	Free	-	+		Hard
	Longest Common Substring (DP - 27)	Solve	Free	Free	-	+		Hard
	Longest Palindromic Subsequence (DP-36)	Solve	Free	Free		+		Hard
	Minimum Insertions to make string palindrome (DP-38	Solve	Free	Free		+		Hard
	Minimum Insertions/Deletions to Convert String (DP - 30)	Solve	Free	Free		+		Hard
	Shortest Common Supersequence (DP - 31)	Solve	Free	Free		+		Hard
	Distinct Subsequences(DP-32)	Solve	Free	Free		+		Hard
	Edit Distance (DP-33)	Solve	Free	Free		+		Hard
	Wildcard Matching (DP-34)	Solve	Free	Free		+		Medium

- Leo 6: DP on Stocks 0 / 6

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Best Time to Buy and Sell Stock (DP-35)	Solve	Free	Free		+		Hard
	Buy and Sell Stock -(DP-36)	Solve	Free	Free		+		Hard
	Buy and Sell Stocks-(DP-37)	Solve	Free	Free		+		Hard
	Buy and Stock Sell V (DP-38)	Solve	Free	Free		+		Hard
	Buy and Sell Stocks With Cooldown(DP-39)	Solve	-	Free		+		Hard
	Buy and Sell Stocks With Transaction Fee(DP-40)	Solve	Free	Free		+		Hard

- Leo 7: DP on LIS 0 / 7

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Longest Increasing Subsequence (DP-41)	Solve	Free	Free		+		Hard
	Printing Longest Increasing Subsequence(DP-42)	Solve	Free	Free	-	+		Hard
	Longest Increasing Subsequence (DP-43)	Solve	Free	Free	-	+		Hard
	Largest Divisible Subset(DP-44)	Solve	Free	Free		+		Hard
	Longest String Chain(DP-45)	Solve	Free	Free		+		Hard
	Longest Bitonic Subsequence (DP-46)	Solve	Free	Free	-	+		Hard
	Number of Longest Increasing Subsequence(DP-47)	Solve	Free	Free		+		Hard

- Leo 8: MCM DP (Partition DP 0 / 7

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Matrix Chain Multiplication(DP-48)	Solve	Free	Free	-	+		Hard
	Matrix Chain Multiplication (Bottom-Up)(DP-49)	Solve	Free	Free	-	+		Hard
	Minimum Cost to Cut the Stick (DP-50)	Solve	Free	Free		+		Hard
	Burst Balloons(DP-51)	Solve	Free	Free		+		Hard
	Evaluate Boolean Expression to True(DP-52)	Solve	Free	Free		+		Hard
	Palindrome Partitioning - (DP-53)	Solve	Free	Free		+		Hard
	Partition Array for Maximum Sum(DP-54)	Solve	-	Free		+		Hard

- Leo 9: DP on Squares 0 / 2

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Maximum Rectangle Area with all 1s(DP-55)	Solve	Free	Free		+		Hard
	Count Square Submatrices with All Ones(DP-56)	-	-	Free		+		Hard

- Step 07 : Tries 0 / 7

- Leo 1: Theory 0 / 1

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Implement Trie (INSERT	SEARCH	STARTSWITH	Solve	Free	Free		+		Hard

- Leo 2: Problems 0 / 6

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Implement Trie – 2 (Prefix Tree)	Solve	Free	-	-	+		Hard
	Longest String with All Prefixes	Solve	Free	Free	-	+		Medium
	Number of Distinct Substrings in a String	Solve	Free	Free	-	+		Hard
	Bit Prefixquestion for TRIE Problems	-	-	Free	-	+		Hard
	Maximum XOR of two numbers in an array	Solve	Free	Free		+		Medium
	Maximum XOR With an Element From Array	Solve	Free	Free		+		Hard

- Step 08 : Strings 0 / 9

- Leo 1: Hard Problems 0 / 8

Status	Problem	TLE?	Resource (Free)	Resource (Free)	Practice	Note	Revision	Difficulty
	Minimum number of character insertions needed to make an expression balanced	Solve	Free	-	-	+		Medium
	Count and-way	Solve	Free	Free	-	+		Medium
	Hashing in Strings	Theory	-	-	-	+		Medium
	Rabin Karp	Solve	Free	-	-	+		Hard
	Z-Function	Solve	Free	-	-	+		Easy
	KMP algo (LPS[pi] array	Solve	Free	-	-	+		Hard
	Manacher's Algorithm - Longest Palindromic Substring	Solve	Free	Free	-	+		Hard
	Shortest Palindrome	Solve	Free	-	-	+		Hard
	Longest happy prefix	Solve	Free	-	-	+		Hard
	Count palindromic subsequence in given string	Solve	-	-	-	+		Hard