

DSA Orientation

DSA ROUNDS 🥲



NEXT 6 MONTHS >>> DSA



ABOUT ME

- Lead Instructor - 100xSchool
- Ex - Scaler, Achieve.ai, Unacademy, Coding Ninjas
- Candidate Master Codeforces (2000+)
- 6★ Codechef (2200+)
- Top 0.07% LeetCode (2700+)
- 2x ICPC Regionalist (2022, 2023)



DhruvPasricha



_DhruvPasricha

100x
school

SYLLABUS

- **Introduction to C++**
- **Loops and Pattern Printing**
- **Arrays / 2D Arrays**
- **Strings**
- **Sorting and Searching**
- **Pointers / Pass by val, ref & add**
- **Time and Space Complexity**
- **Sets and Maps**
- **Prefix Sums, Sliding Window, Contribution**
- **Bit Manipulation**
- **Number Theory Basics**
- **Recursion and Backtracking**
- **Two Pointers**
- **Linked List**
- **Stack / Queue / Deque**
- **Binary Tree / BST**
- **Priority Queue / Heap**
- **Trie**
- **Greedy**
- **Dynamic Programming**
- **Graphs**
- **Segment Tree / Ordered Set**

WHAT'S THE PLAN?

Class

One live class per week, Thursday: 8 PM - 10 PM

Assignments

Practice problems after every class. (Codeforces / Leetcode)

Contest

Practice contest after every 2 weeks, Wednesday: 8 PM - 10 PM

EXPECTATIONS

Be **Consistent**

Attend every class and complete the assignments sincerely.

Ask for **Help**

If you're stuck, don't stay silent. Post your doubts in the discord.

Prioritize **Revision**

Maintain a revision doc and solved problems sheet – this is crucial for long-term retention.

SAMPLE REVISION SHEET

A	B	C	D	E	F	G
DSA Problems ▾						
Problem Name ▾	Problem Link ▾	Topic ▾	Idea ▾	What I did wrong ▾	Status ▾	Revisit ? ▾
Two Sum	leetcode.com/problems/two-sum/	Arrays ▾	Check pairs using map	Forgot indices	Solved (No help) ▾	No ▾
Palindrome Number	ode.com/problems/palindrome	Math ▾	Reverse number and compare	Negative case missed	Solved (With help) ▾	Yes ▾
Valid Parentheses	ode.com/problems/valid-pa	Stack ▾	Use stack to match	Forgot empty check	Solved (No help) ▾	No ▾
Remove Duplicates	problems/remove-duplicate	Arrays ▾	Use two pointers	Index confusion	Unsolved ▾	Yes ▾
Merge Lists	e.com/problems/merge-tw	Linked List ▾	Compare and move pointers	Lost next pointer	Solved (With help) ▾	Yes ▾
Maximum Subarray	ode.com/problems/maximu	Arrays ▾	Kadane, Keep best sum so far	Reset logic wrong	Solved (No help) ▾	Yes ▾
Contains Duplicate	ode.com/problems/contain	Arrays ▾	Use set to check	Didn't know set	Solved (No help) ▾	No ▾
Reverse String	etcode.com/problems/rever	Strings ▾	Swap from both ends	Loop mistake	Solved (With help) ▾	No ▾
Buy & Sell Stock	om/problems/best-time-to-b	Arrays ▾	Track min price	Wrong comparison	Solved (With help) ▾	No ▾
Fizz Buzz	leetcode.com/problems/fiz	Basics ▾	Check divisibility	Order mistake	Unsolved ▾	Yes ▾

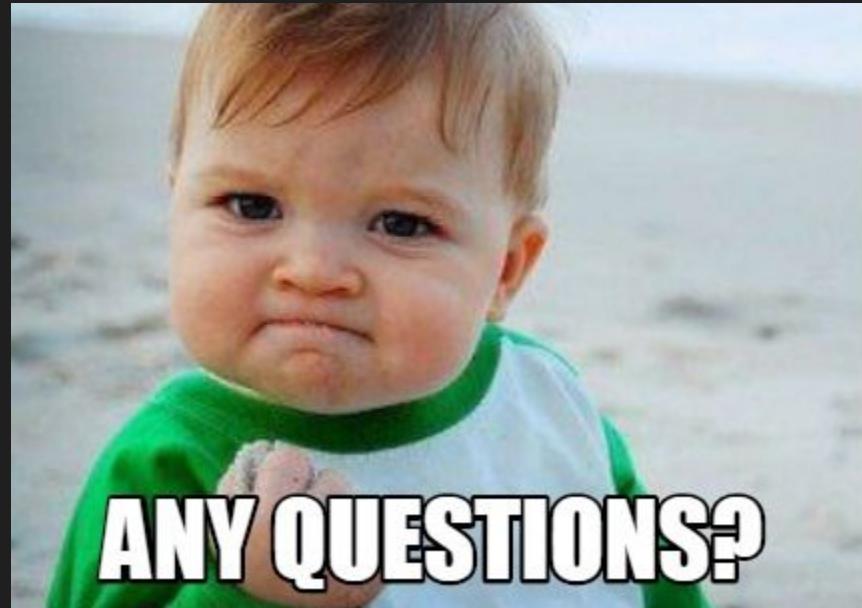
COMMON **MISTAKES** TO AVOID

START CODING **WITHOUT** HAVING A SOLUTION IN MIND.

COMPARING YOUR PROGRESS WITH OTHERS.

CHASING **SHEETS** INSTEAD OF UNDERSTANDING.

GIVING UP TOO EARLY.



1) Codeforces Div 3 and 4 contest

2) Atcoder beginner contest

3) Leetcode weekly and biweekly contests