

# 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 Link	Topic	Idea	What I did wrong	Status	Revisit ?
Two Sum	<a href="#">leetcode.com/problems/two-sum</a>	Arrays	Check pairs using map	Forgot indices	Solved (No help)	No
Palindrome Number	<a href="#">code.com/problems/palindrome</a>	Math	Reverse number and compare	Negative case missed	Solved (With help)	Yes
Valid Parentheses	<a href="#">code.com/problems/valid-parentheses</a>	Stack	Use stack to match	Forgot empty check	Solved (No help)	No
Remove Duplicates	<a href="#">/problems/remove-duplicates</a>	Arrays	Use two pointers	Index confusion	Unsolved	Yes
Merge Lists	<a href="#">code.com/problems/merge-two-linked-lists</a>	Linked List	Compare and move pointers	Lost next pointer	Solved (With help)	Yes
Maximum Subarray	<a href="#">code.com/problems/maximum-subarray</a>	Arrays	Kadane, Keep best sum so far	Reset logic wrong	Solved (No help)	Yes
Contains Duplicate	<a href="#">code.com/problems/contains-duplicate</a>	Arrays	Use set to check	Didn't know set	Solved (No help)	No
Reverse String	<a href="#">leetcode.com/problems/reverse-string</a>	Strings	Swap from both ends	Loop mistake	Solved (With help)	No
Buy & Sell Stock	<a href="#">code.com/problems/best-time-to-buy-and-sell-stock</a>	Arrays	Track min price	Wrong comparison	Solved (With help)	No
Fizz Buzz	<a href="#">leetcode.com/problems/fizz-buzz</a>	Basics	Check divisibility	Order mistake	Unsolved	Yes

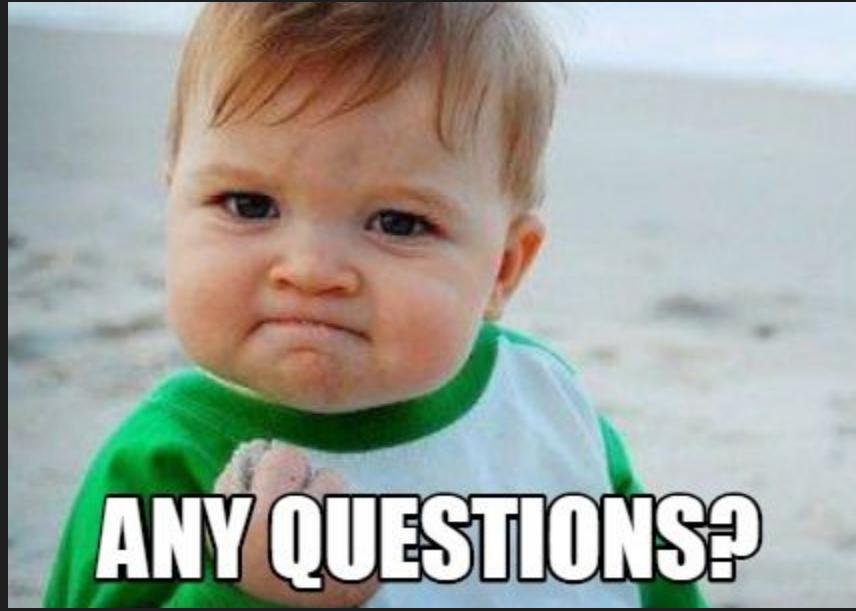
# COMMON MISTAKES TO AVOID

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

**COMPARING YOUR PROGRESS WITH OTHERS.**

**CHASING SHEETS INSTEAD OF UNDERSTANDING.**

**GIVING UP TOO EARLY.**



**ANY QUESTIONS?**

- 1) Codeforces Div 3 and 4 contest
- 2) Atcoder beginner contest
- 3) Leetcode weekly and biweekly contests