



#### Technical affairs- IIITDM Kancheepuram



# **Day - 09**

## **CP WORKSHEET**

Date: 09/07/2025

**Duration**: 24 Hours

# **Challenge Brief**

The CP Worksheet will have **4 problems** that will test your problem-solving, implementation, and analytical skills under realistic constraints.

# **Objective**

The goal of this worksheet is not just to solve problems but to build your ability to:

- Write correct and efficient code under realistic constraints.
- Clearly communicate your approach, so anyone can understand your logic.



- Analyze and justify time and space complexities, a vital skill for coding interviews and contests.
- Develop the habit of writing clean, well-structured explanations just like you'd do in a technical round or when documenting production code.

By practicing this way, you'll strengthen both your **problem-solving** and your **technical communication** — two essential skills for success in competitive programming, technical interviews, and real-world software development.

#### **CP WORKSHEET**

https://drive.google.com/file/d/1\_pto-HIffRB8ix49TtMFZBVszt7mBUkT/view?usp=sharing

#### **General Guidelines and Deliverables**

To ensure that you not only solve the problems but also practice clear communication of your approach, please follow these guidelines:

- 1) Working Code for Each Problem
  - You must submit the complete, working code that produces correct output for each problem.
- 2) Explanation Document
  - a) For all problems, create one single Google Doc containing your explanations.
    Submit the drive link
  - b) For each problem in the document, include:
    - Your approach: A clear, concise description of how you solved the problem.
    - ii) Time Complexity: State the overall time complexity, with justification according to the constraints.
    - iii) Space Complexity: State the overall space complexity, with justification.



#### **Evaluation Criteria**

Submission for each problem will be evaluated out of 10 marks:

#### Correctness (6 marks)

• Code produces correct output for all test cases and handles edge cases properly.

#### **Approach Explanation (2 marks)**

Clear, concise, and original explanation of your logic in your own words.

#### **Complexity Analysis (2 marks)**

 Correct time and space complexity stated, with justification that matches the problem's constraints.

Total per problem: 10 marks

Total for the worksheet (4 problems): 40 marks

**Note:** Incomplete or vague explanations or missing complexity analysis may lead to partial marks even if the code is correct.

## **Support**

For any queries, reach out to:

Email: ME23B2010 DHANYA V

Name & contact: Dhanya V 7338798357

WhatsApp Community: <a href="https://chat.whatsapp.com/CEjhrp1QolYLs1m40gslMT">https://chat.whatsapp.com/CEjhrp1QolYLs1m40gslMT</a>



## **Submission**

Please Submit here - <a href="https://forms.gle/uV7ZXBaHxTNSGAU17">https://forms.gle/uV7ZXBaHxTNSGAU17</a>



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