

11 Weeks Workshop

on Data Structures and Algorithms



Detailed Course Syllabus



Introduction

19th Nov: Intro to DSA - Why DSA Important / Types of Structures/Terminology

Week 1

- a. 25th Nov: Basic Maths + Practise Questions + Q/A
- **b.** 26th Nov: Array Introduction and Operations

Week 2

- a. 2nd Dec: Array Practise Questions + Q/A
- **b.** 3rd Dec: Sorting Algorithms + Practise Questions

Week 3

- a. 9th Dec: Matrix/Strings + Practise Questions + Q/A
- **b.** 10th Dec: Basic Bit Manipulation + Practise Questions

Week 4

- a. 16th Dec: Hashing + Practise Questions + Q/A
- **b.** 17th Dec: Linked List Introduction and Operations

Week 5

- a. 23rd Dec: Linked List Practise Questions + Q/A
- **b.** 24th Dec: Stack Introduction and Operations

Week 6

30th Dec: Stack Practise Questions + Q/A

• Week 7

a. 6th Jan: Queue Introduction and Operations



b. 7th Jan: Queue Practise Questions + Q/A

Week 8

- a. 13th Jan: Tree Introduction and Operations
- **b.** 14th Jan: Tree Practise Questions + Q/A

Week 9

- a. 20th Jan: Heap/Graph Introduction and Operations
- **b.** 21st Jan: Heap/Graph Practise Questions + Q/A

Week 10

- a. 27th Jan: Greedy Algorithm Introduction and Implementation
- **b.** 28th Jan: Greedy Algorithm Practise Questions + Q/A

• Week 11

- **a.** 3rd Feb: BackTracking/Dynamic Programming Introduction and Implementation
- **b.** 4th Feb: BackTracking/Dynamic Programming Practise Questions + Q/A