



Data Structure Algorithm Problem Solving Techniques

↓ ↓
Linear Non-linear

Array	Trees
Linked list	Binary Search Trees
Stack	Heap
Queues	Graphs
Hash Tables	TRIE
	Union-Find

Algorithms

Sorting
Binary Search
Bit Manipulation
In-order
Pre-order
Post-order
Level-order
DFS / BFS
Topological Sort
Dijkstra
Bellman Ford

Problem Solving Techniques

Two-sum Pointer Backtracking
Sliding Window Dynamic Programming
Prefix Sum
Fast and Slow Pointer Top-k element
Divide and Conquer
Greedy
Recursion



Page No.....

Outline

Array → Linked list → stack & queues → Hash tables

Searching ← Sorting ← Recursion ← Backtracking ← Two pointers / Sliding window

Bit manipulation → Tree/BST/ Trie → Heaps → Greedy

Graph Union- Find ← Dynamic Programming

① Start with Basics

- ① What it is ?
- ② How it's Represented in code ?
- ③ Different operation you can Perform on it .
- ④ Time / Space complexities .
- ⑤ Learn Real world application ?
- ⑥ Use Pen and Paper

Resources .

- ① Abdul Bari Algo Playlist
- ② Data Structure William Fiset

Focus on Problem Solving

How to retain what you learn ?

- ① Repetition : By revising , try to solve again without looking at solution .

Follow - A 2 Z Sheet