

DSA Roadmap

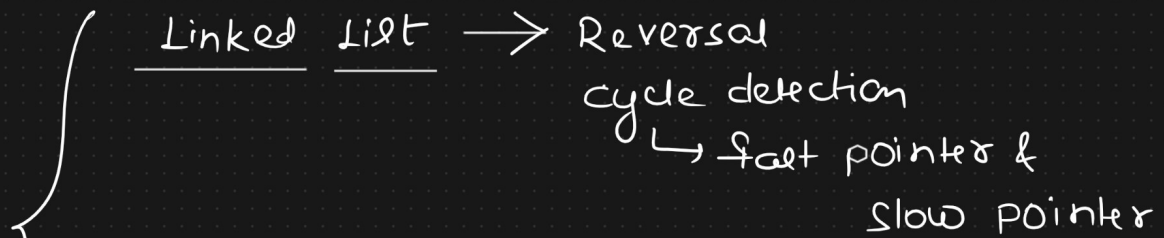
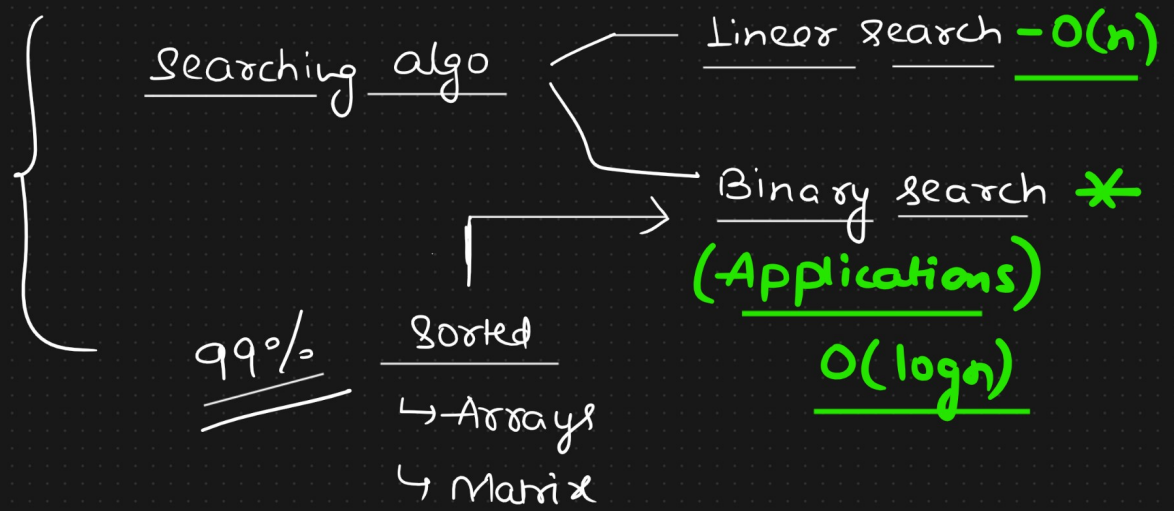
Problem solving skills { Analysis → Time & Space Complexity
Recurrence Relation Solving
A priori Analysis, Complexity classes

{ Array & String → 1) Two Pointers
2) Kadan's Algorithm
2D Array → 1) Matrix Computation

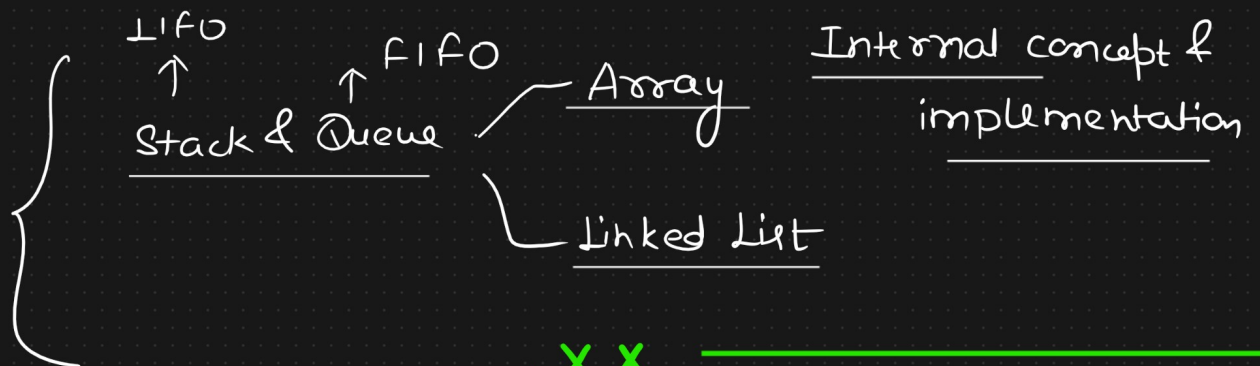
Important

⇒ { Recursion → Basic questions → Factorial,
Divide & Conquer fibonneci
Series
↳ Algorithms
MergeSort, QuickSort,
Binary Search

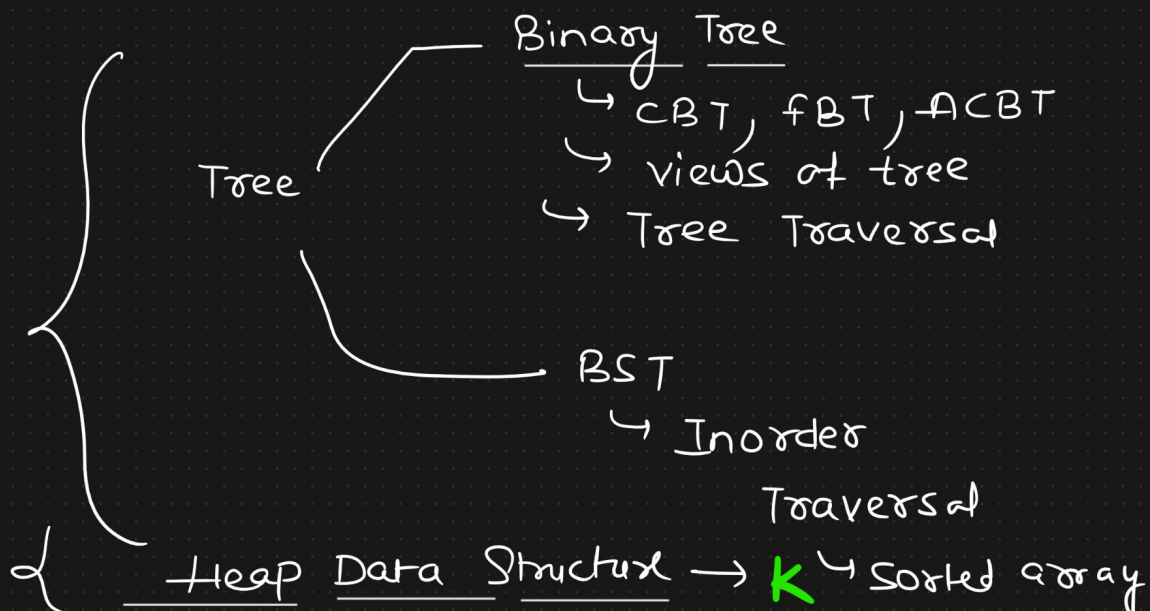
{ Sorting algorithms { comparision sort
↳ selection, bubble,
insertion, shell,
heap
non comparision
sort
↳ count,
radix,
bucket

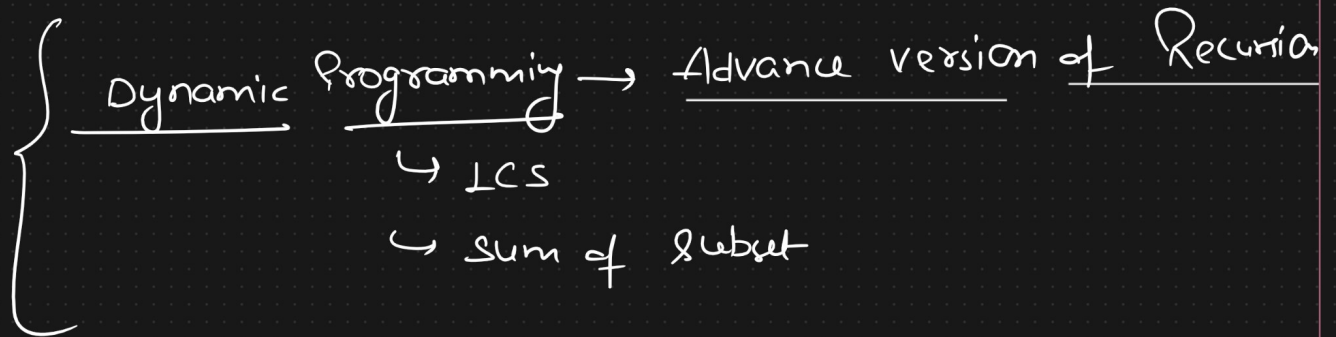
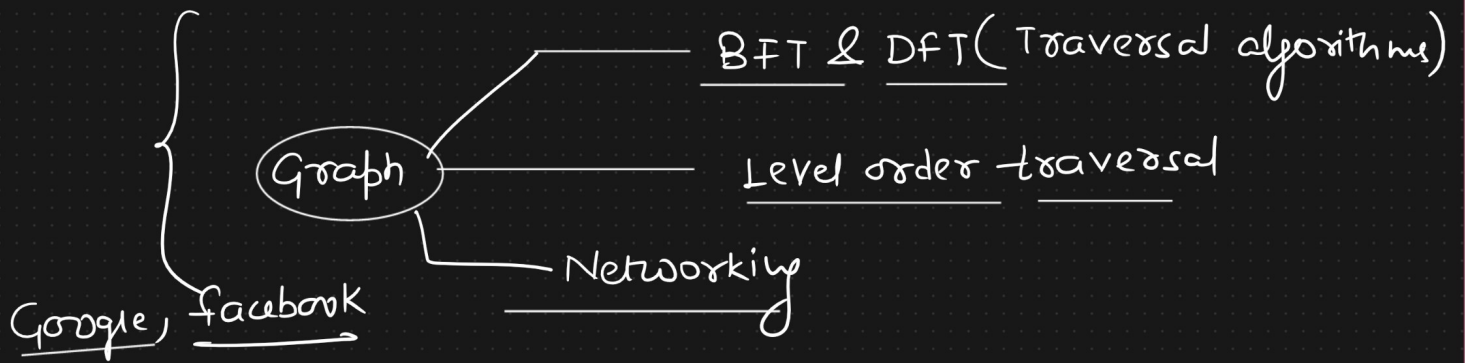


Sorting algo
Modify Linked List



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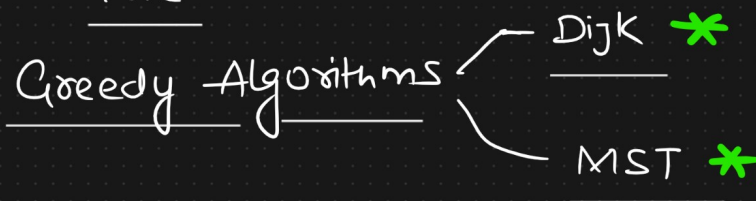




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Hashing Data Structure

Trie



Circular Queue, Doubly Linked List

Skip List

Deque

String Matching Algo

→ competitive programming

Maths

← Bit Manipulation

Left shift → * 2

Right shift → / 2

Backtracking
↳ Recursion

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