21 day - Getting started with DSA Roadmap

Hmmmmmm

Introduction to Data Structures

◇ - Day 1: Understand the significance of Data Structures and Algorithms (DSA).

◇ - Day 2: Dive into arrays, their properties, and operations.

◇ - Day 3: Explore linked lists, their types, and implementations.

◇ - Day 4: Grasp the concepts of stacks and queues, along with their applications.

◇ - Day 5: Get familiar with trees, including tree traversal techniques and binary trees.

◇ - Day 6: Deepen your knowledge about binary search trees (BST) and their operations.

◇ - Day 7: Learn the fundamentals of heaps, such as min-heaps and max-heaps.

🚀 **Week 2: Advanced Data Structures and Sorting Algorithms**

◇ - Day 8: Study advanced trees like AVL trees and Red-Black trees.

◇ - Day 9: Delve into hash tables and various collision resolution techniques.

◇ - Day 10: Explore the world of graphs, graph representations, and basic graph algorithms.

◇ - Day 11: Learn sorting algorithms (Bubble Sort, Insertion Sort, Selection Sort).

◇ - Day 12: Master advanced sorting algorithms (Merge Sort, Quick Sort).

◇ - Day 13: Discover searching algorithms (Linear Search, Binary Search).

◇ - Day 14: Apply your knowledge by implementing these data structures and algorithms.

🚀 **Week 3: Algorithm Design and Problem Solving**

◇ - Day 15: Grasp dynamic programming and its core concepts.

◇ - Day 16: Understand the magic of greedy algorithms and where to apply them.

◇ - Day 17: Hone your problem-solving skills with practice on platforms like LeetCode and HackerRank.

◇ - Day 18: Tackle more challenging problems, and analyze time and space complexities.

◇ - Day 19: Continue solving complex problems, refining your skills.

◇ - Day 20: Review what you've learned and address any weak areas.

◇ - Day 21: Recap your journey, take mock tests, and prepare for coding interviews.