Data Structure Workouts
1. Learn what is Data Structure & Algorithms. 2. Learn the basics of Memory Allocation and Memory leak. 3. Learn the concept of Complexity Analysis. NB: The complexity of common operations of all data structures should be covered. 4. Learn about Asymptotic analysis (Big-O notation). 5. Learn the concepts of Array. Complete at least three sample workouts & do at least 3 problems from any competitive coding websites (Hacker Rank, Code Chef, Leet code, Algo Expert, etc.) 6. Learn the concepts of the Linked list. Complete at least three sample workouts a. Construction of Singly linked list & Doubly linked list. b. Convert array to a linked list c. Add a node at the end & beginning d. Delete node with the value specified e. Insert a node after & before a node with x data f. Print all elements by order & reverse by order g. Write a program to remove duplicates in a sorted singly linked list 7. Learn the concepts of String. Complete at least three sample workouts. Eg: Write a function to replace each alphabet in the given string with another alphabet occurring at the n-th position from each of them. 8. Learn about Linear Search & Binary Search. Complete at least 3 sample workouts in each of them 9. Learn the concepts of Recursion. Complete at least 3 sample workouts. 10. Learn about the applications of all structures you covered this week
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