

Data Structures Learning Sequence

[Algorithm + implementation in C]

Remember:

1. First google the algorithm and Understand it deeply and write it on copy.

2. Then write program in C language.

Note:- Use passing argument and Return, avoid heavy code in main()

1. Introduction to data structures
2. Arrays
 - a. Linear Search
 - b. Binary Search
 - c. Insertion and Deletion elements
 - d. Bubble Sort, Insertion Sort, Selection Sort
 - e. Merge Sort
3. Recursion
 - a. Factorial
 - b. Fibonacci Series
4. Stacks
 - a. POP & PUSH Operations
 - b. Infix Notation
 - c. Polish Notation
 - d. Reverse Polish Notation
 - e. Quick Sort
 - f. Tower of Hanoi
5. Queues
 - a. Intro. To LIFO & FIFO
 - b. Insertion in queue
 - c. Deletion from queue
6. Linked List
 - a. Introduction to Linked List, diff b/w Array and Linked List
 - b. Append Node in Linked list
 - c. Traversing Linked List
 - d. Search & Delete the Node
 - e. Searching in Unsorted Linked List
 - f. Searching in Sorted Linked List
 - g. Insert Node at Beginning
 - h. Insert node after given node
 - i. Insert in Sorted Linked List
 - j. Header Linked List
 - i. Grounded header and Circular header
 - k. Two Way Linked List
 - i. Append node
 - ii. Traversing it
 - iii. Searching element
 - iv. Deletion of node
7. Trees
8. Graphs