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| **Pr. No** | **PRACTICAL’S AIM**  **INDEX** | **Start Date** | **End Date** | **Marks** | **SIGN** |
|  | Write a program for implementing a MINSTACK which should support operations like push, pop, overflow, underflow, display  1. Construct a stack of N-capacity  2. Push elements  3. Pop elements  4. Top element  5. Retrieve the min element from the stack |  |  |  |  |
|  | Write a program to deal with real-world situations where Stack data structure is widely used Evaluation of expression: Stacks are used to evaluate expressions, especially in languagesthat use postfix or prefix notation.  Operators and operands are pushed onto the stack, and operations are performed based on the LIFO principle. |  |  |  |  |
|  | Write a program for finding NGE NEXT GREATER ELEMENT from an array |  |  |  |  |
|  | Write a program to design a circular queue(k) which Should implement the below functions  a. Enqueue b. Dequeue c. Front d. Rear |  |  |  |  |
|  | Write a Program for an infix expression, and convert it to postfix notation. Use a queue to implement the Shunting Yard Algorithm for expression conversion. |  |  |  |  |
|  | Write a Program for finding the Product of the three largest Distinct Elements. Use a Priority Queue to efficiently find and remove the largest elements. |  |  |  |  |
|  | Write a Program to Merge two linked lists(sorted). |  |  |  |  |
|  | Write a Program to find the Merge point of two linked lists(sorted). |  |  |  |  |
|  | Write a Program to Swap Nodes pairwise. |  |  |  |  |
|  | Write a Program for Building a Function ISVALID to VALIDATE BST. |  |  |  |  |
|  | Write a Program to Build BST. |  |  |  |  |
|  | Write a Program to determine the depth of a given Tree by Implementing MAXDEPTH. |  |  |  |  |
|  | Write a Program to Understand and implement Tree traversals i.e. Pre-Order Post-Order, In-Order. |  |  |  |  |
|  | Write a Program to perform Boundary Traversal on BST. |  |  |  |  |
|  | Write a program for Lowest Common Ancestors. |  |  |  |  |
|  | Write a Program to verify and validate mirrored trees or not. |  |  |  |  |
|  | Write a Program for a basic hash function in a programming language of your choice. Demonstrate its usage to store and retrieve key-value pairs. |  |  |  |  |
|  | Implement a hash table using separate chaining for collision handling. Perform operations like insertion, deletion, and search on the hash table. |  |  |  |  |
|  | Write a Program to Implement Two sums using HASHMAP. |  |  |  |  |
|  | Write a Program to Implement Search, insert, and Remove in Trie. |  |  |  |  |
|  | Write a Program to Implement Huffman coding. |  |  |  |  |
|  | Write a Program to find Distinct substrings in a string. |  |  |  |  |
|  | Write a Program to find The No of Words in a Tree. |  |  |  |  |
|  | Write a Program to view a tree from left View. |  |  |  |  |
|  | Write a Program to Traverse a Tree using Level Order Traversal. |  |  |  |  |