

1. **Create Binary tree and perform following operations:**
 - a. Create
 - b. Insert
 - c. Display (using all 3 traversals with recursion)

2. **Create Binary tree and perform following operations:**
 - a. Create
 - b. Display In-order traversal
 - c. Depth of a tree

3. **Create Binary tree and perform following operations:**
 - a. Create
 - b. Display In-order traversal
 - c. Create a copy of a tree

4. **Create Binary tree and perform following operations:**
 - d. Create
 - e. Display In-order traversal
 - f. Display leaf-nodes

5. **Construct and expression tree from postfix/prefix expression and perform recursive and non-recursive In-order, pre-order and post-order traversals.**

Input: postfix expression

 - a. Create tree
 - b. All traversals

6. **Construct and expression tree from postfix/prefix expression and perform recursive and non-recursive In-order, pre-order and post-order traversals.**

Input: prefix expression

 - a. Create tree
 - b. All traversals

7. **Implement binary search tree and perform following operations:**
 - a. Insert
 - b. Display In-order traversal
 - c. Search

8. **Implement binary search tree and perform following operations:**
 - a. Insert
 - b. Display In-order traversal
 - c. Mirror image

9. Implement binary search tree and perform following operations:

- a. Insert
- b. Display In-order traversal
- c. Display level wise

10. Implement binary search tree and perform following operations:

- a. Insert
- b. Display In-order traversal
- c. Delete (Case 1: Node to be deleted is the leaf)

11. Implement binary search tree and perform following operations:

- a. Insert
- b. Display In-order traversal
- c. Delete (Case 2: Node to be deleted has only one child)

12. Implement binary search tree and perform following operations:

- a. Insert
- b. Display In-order traversal
- c. Delete (Case 3: Node to be deleted has two children)

13. Represent any real-world graph using adjacency matrix:

- a. Create a graph
- b. Display

Note:

Problem statement no. 13 is only for CORE division students.