# **Experiment 7. Traversals of Binary Trees Part I**

### I. Experiment purpose

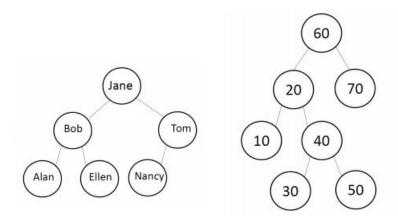
For this lab, you will practice to traverse binary tree in three ways.

#### II. Use instruments and materials

ProcessOn

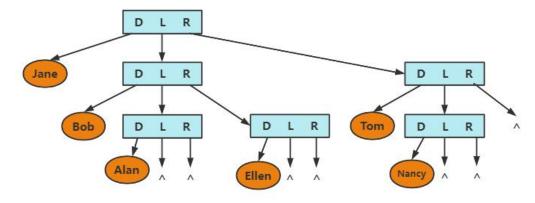
### **III.** Experiment content

Given the following binary trees, list the nodes in the order they are visited in a traversal such as a preorder traversal, an inorder traversal, or a postorder traversal.



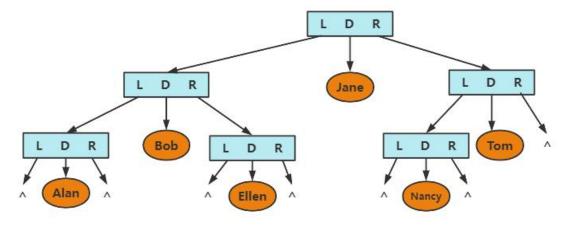
## IV. Test steps and process records

Preorder: Jane, Bob, Alan, Ellen, Tom, Nancy



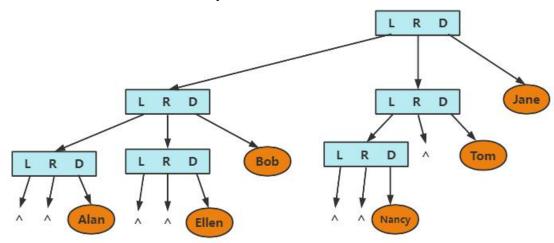
Graph 1 preorder\_1

Inorder: Alan, Bob, Ellen, Jane, Nancy, Tom



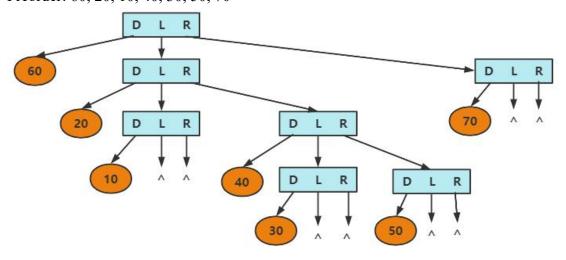
Graph 2 inorder\_1

Postorder: Alan, Ellen, Bob, Nancy, Tom, Jane



Graph 3 postorder\_1

Preorder: 60, 20, 10, 40, 30, 50, 70



Graph 4 preorder\_2

Inorder: 10, 20, 30, 40, 50, 60, 70

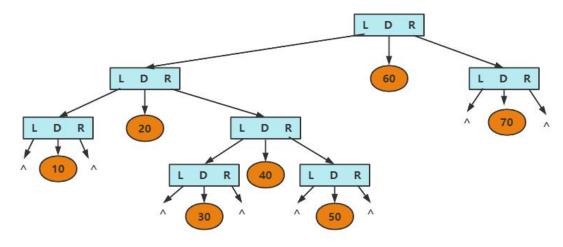
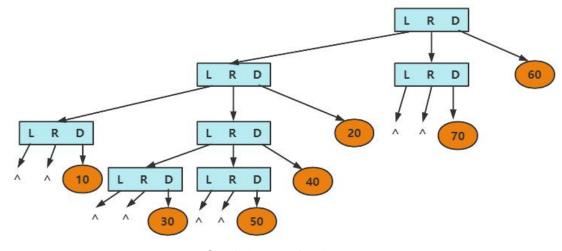


图 5 inorder\_2

Postorder: 10, 30, 50, 40, 20, 70, 60



Graph 6 postorder\_2

# V. Experimental gains and experiences

- 1. Learn about Binary Tree.
- 2. Learn about the three ways to traverse binary tree.