Activity -1(self-study)   Date: 15.05.23
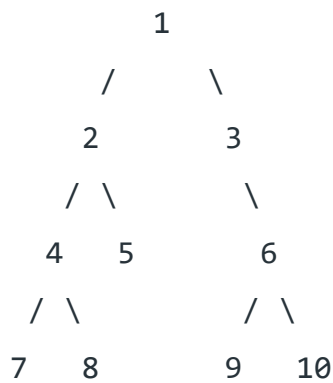
1. Design C code to add two polynomials using singly linked list.
   Input: $p1 = 13x^8 + 7x^5 + 32x^2 + 54$
           $p2 = 3x^{12} + 17x^5 + 3x^3 + 98$
           Output: $3x^{12} + 13x^8 + 24x^5 + 3x3 + 32x^2 + 152$
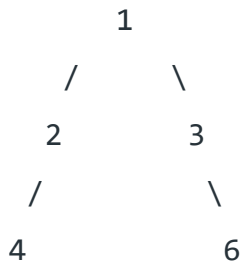
2. Extract Leaves of a Binary Tree in a Doubly Linked List
   Let the following be input binary tree

```
            1
          /     \
        2         3
       / \         \
      4   5         6
     / \           / \
    7   8         9   10
```

   Output:

   Doubly Linked List

   Modified Tree:

```
        1
      /     \
    2          3
   /             \
  4               6
```

   Output

   Inorder Traversal of given Tree is:

7 4 8 2 5 1 3 9 6 10

   Extracted Double Linked list is:

7 8 5 9 10

   Inorder traversal of modified tree is:

4 2 1 3 6

Activity -2(Case Study)   Date: 15.05.23

Analyse the following two papers on the application of Dijkistra's. Justify your comments or conclusion on both papers. (with minimum 2 pages each)

Paper1: IMPLEMENTATION OF DIJKSTRA'S ALGORITHM IN DETERMINING THE SHORTEST PATH (CASE STUDY: SPECIALIST DOCTOR SEARCH IN BANDAR LAMPUNG).

Paper2: Dijkstra's Algorithm On–Line: An Empirical Case Study from Public Railroad Transport