1. Write a procedure for encoding an arbitrary rooted ordered tree as a binary tree in the Left-Child Right-Sibling scheme.
   Also write a routine to decode it and recover the original tree.

2. Write routines to implement in-order, pre-order and post-order tree traversals. Also implement level-order traversals, and zig-zag traversals.

3. Write a routine for recovering the parent, left-child and right child of a node in a binary heap.