Approach

Intuition

The key idea behind identifying a dead end in a BST is to perform a traversal that captures both the structure of the tree and the leaf nodes. By checking the neighbors of each leaf node, we can determine if a dead end exists. Specifically, if the leaf node is 1 and its next node is 2, or if the leaf node's neighbors are present, then we have found a dead end.

Approach

To implement this solution, we use a BFS traversal to explore the BST level by level. During traversal, we maintain two sets: one to keep track of visited nodes (visited_nodes) and another to store leaf nodes (leaf_nodes). After traversal, we iterate through the leaf nodes, checking for the presence of dead ends based on the defined conditions.