## **Binary Tree Nodes**



You are given a table, BST, containing two columns: N and P, where N represents the value of a node in  $Binary\ Tree$ , and P is the parent of N.

Column	Туре
N	Integer
P	Integer

Write a query to find the node type of *Binary Tree* ordered by the value of the node. Output one of the following for each node:

• Root: If node is root node.

• Leaf: If node is leaf node.

• Inner: If node is neither root nor leaf node.

## **Sample Input**

N	Р
1	2
3	2
6	8
9	8
2	5
8	5
5	null

## **Sample Output**

1 Leaf

2 Inner

3 Leaf

5 Root

6 Leai

8 Inner

9 Lea:

## **Explanation**

The Binary Tree below illustrates the sample:

