

# 80\_Tree Node Medium - Solution

Source - <https://leetcode.com/problems/tree-node/>

Running Notes:

- we need to classify the node
  - Leaf - it has parent node + it does not have child nodes
  - Inner - It has a parent node + it has child nodes
  - Root - its parent node is null

```
-- Write your PostgreSQL query statement below
SELECT id,
CASE
WHEN p_id IS NULL THEN 'Root'
WHEN p_id IS NOT NULL and id IN (SELECT DISTINCT(p_id) FROM Tree) THEN '
ELSE 'Leaf'
END AS type
FROM Tree
```

- Here I am finding if the parent node is null that means it doesn't have a parent node because it is the root node
- Then I am seeing if it has a parent node and that specific id (node) is also a part of the parent nodes then it is an inner node
- else it is a leaf node

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