Splay Tree Deletion

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Delete a key 'k' from a Splay tree

1) If root is NULL, return root

2) ELSE
Splay the given key 'k'.

If 'k' is not Present

{ then Splay last accessed node to root and return key not Present

else
Split the tree into two trees
T_1 = Root's Left Subtree

T_2 = Root's Right Subtree

and delete root node

Let Root1 = Root of T1

Root2 = Root of T2

If Root1 is <u>null</u>
return Root2

else
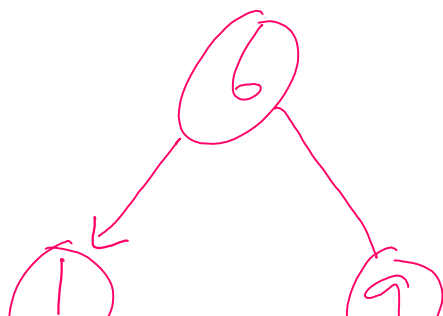Splay maximum
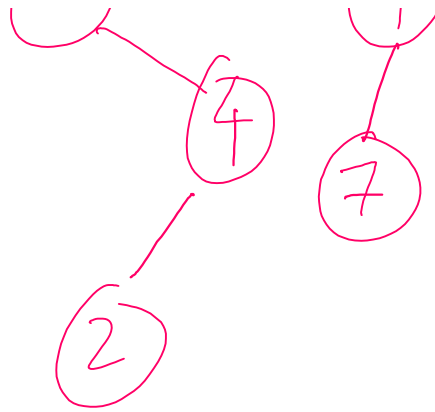node in T1

After splay,
make Root2 as
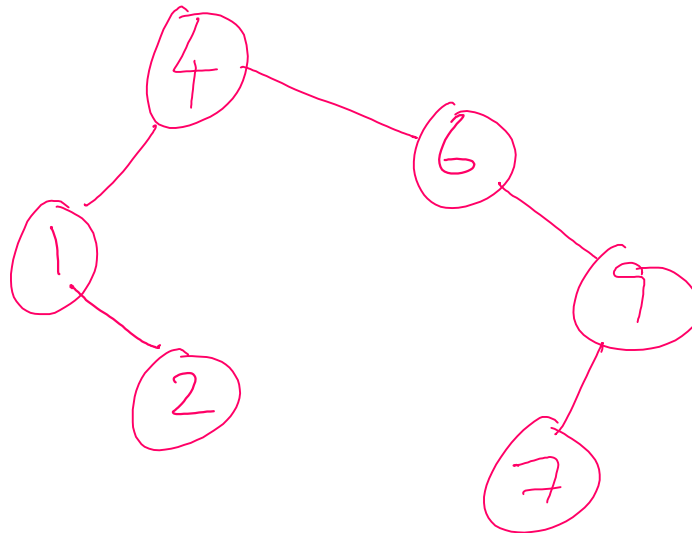Right child of
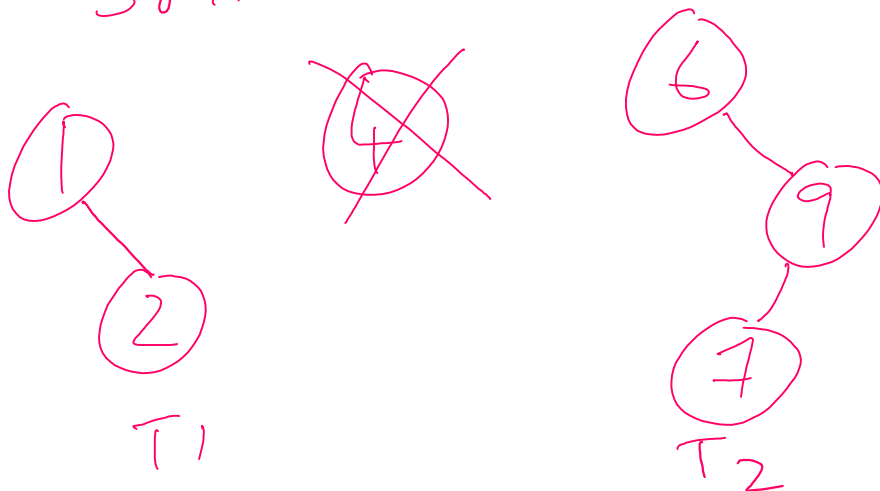Root1 and
return Root1

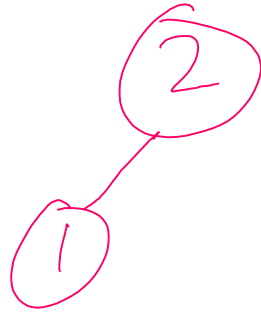## <u>Example</u>

Delete 4

Step 1

Splay 4 : Zig Zag

Step 2

Split delete root

T_1　　　　　　　　　　　　　T_2

STEPS

Splay max in T_1

```
      2
     /
    1
```

Step 4

Join T_1 & T_2

```
      2
     / \
    1   6
         \
          9
         /
        7
```