# Deletion in BST

$$100, 70, 120, 50, 75, 110, 125$$
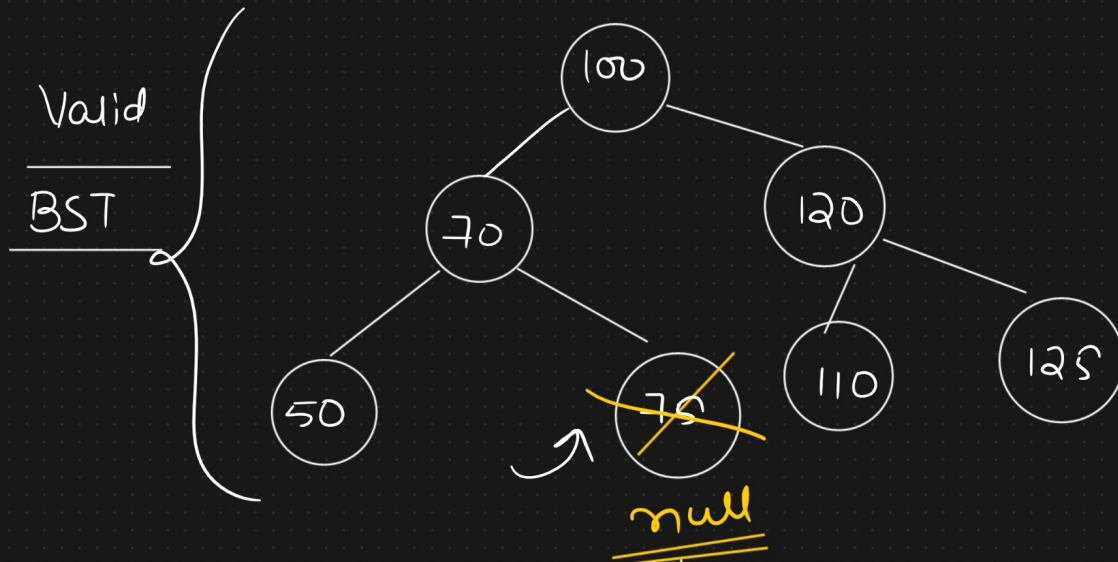


Valid BST

```
        100
       /   \
     70     120
    /  \    /  \
  50   75̶ 110   125
         ↑
       null
```

## Case 1

$x = 75$

$x = 100$

① Leaf Node

② Non-Leaf mode

↓

No child nodel

→ search(100)

↳ Search (75)

→ | Successor | / | Predecessor |

↳ assign node = null

↓                        ↓

Right subtree       Left

(Minime)            Subtree

                    (Maxime)

root.val

$x = 100$

Predecessor
→ Left Subtree
(Max element)

70 ~~100~~ ✓110 ↳ Right subtree
(Min. element)

↓
Successor



Result 1

Result 2
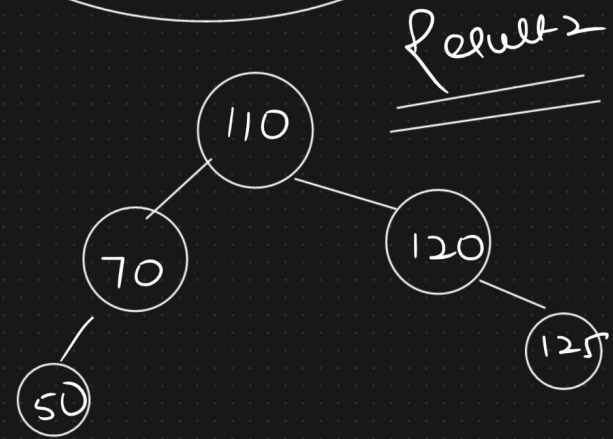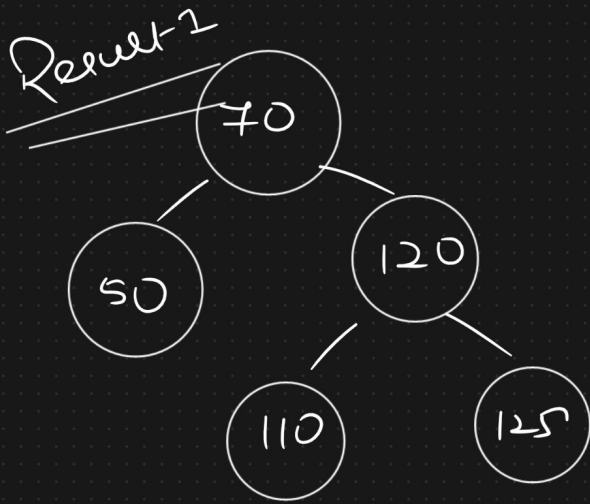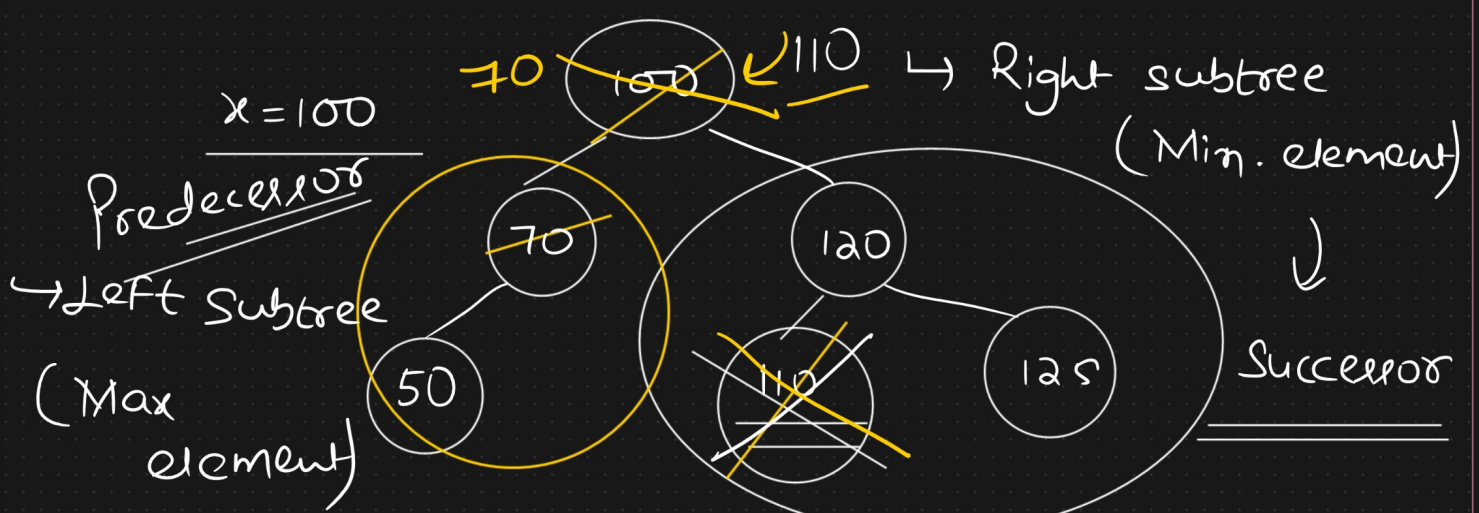
time complexity → $O(h)$

space complexity → $O(h)$

(Recursion)
↳ Stack Space