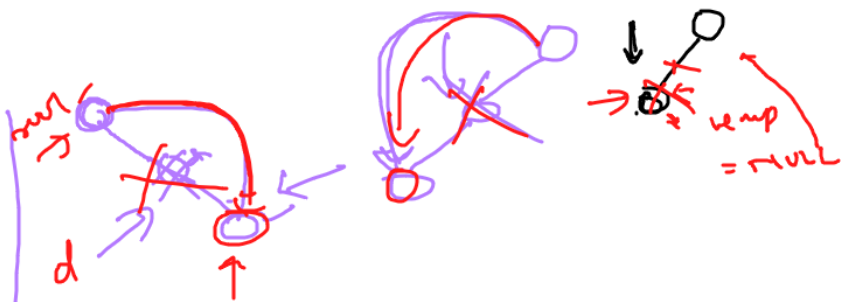
```
Node delete(Node root, key)
{
    if (root == null)
        return root;
    if (key > root.data)
        root.right = delete(root.right, key)
    else if(key < root.data)
        root.left = delete(root.left, key)
    else
    {
        if(root.left == null)
        {
            Node temp = root.right;
            return temp;
        }
        else if(root.right == null)
        {
            Node temp = root.left
            return temp;
        }
        Node temp = findMax(root.left);
        root.data = temp.data;
        root.left = delete(root.left, temp.data);
    }
    return root;
}
```



Greedy & Dynamic programming Algorithms

→ optimization problems

Coin change

200, 1000, 500, 100, 200, 5, 1, 10, 3, 20, 50

WA = 768

sort denominations :→ 2000, 1000, 500, 200, 100, 50, 20, 10, 5, 3, 1

× × ✓ ✓ × ✓ × ✓ ✓ ✓

768 − 500 = 268 − 200 = 68 − 50 = 18 − 10 = 8 − 5 = 3 − 3 = 0

C

Min. no. of coin = 6

$D = \{ 5, 4, 3, 1 \}$ ✓ × ×

$WA = 7 - 5 = 2 - 2 = 0$

$\frac{c}{\times 3}$

$c = 3$