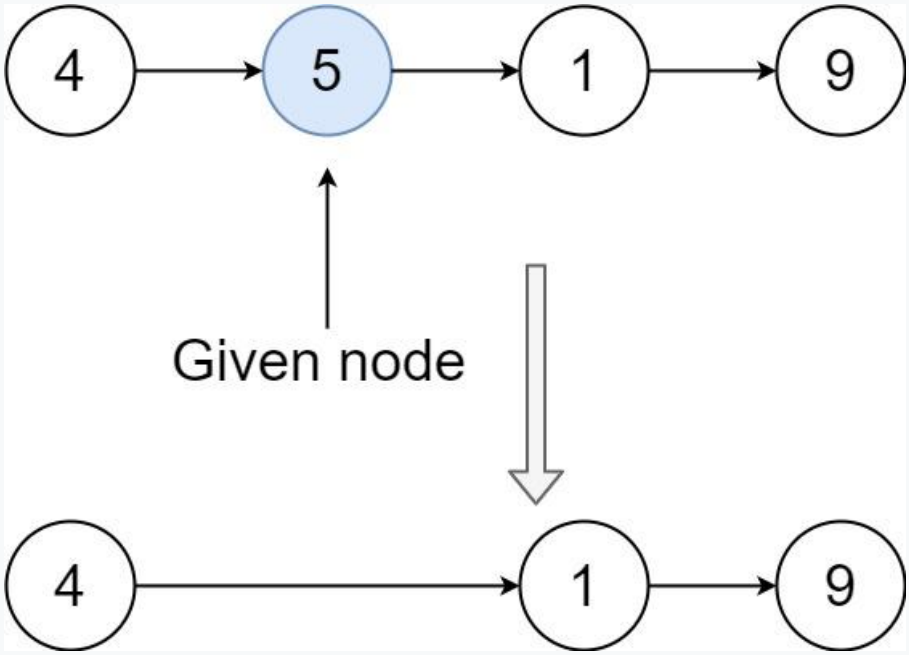
Week 11- Day 2 : Coding Challenge

(Maximum marks -15)
Q-1) Delete Node in a Linked List
https://leetcode.com/problems/delete-node-in-a-linked-list/

(5 marks)
(Medium)
Write a function to delete a node in a singly-linked list. You will not be given access to the head of the list, instead you will be given access to the node to be deleted directly.

It is guaranteed that the node to be deleted is not a tail node in the list.

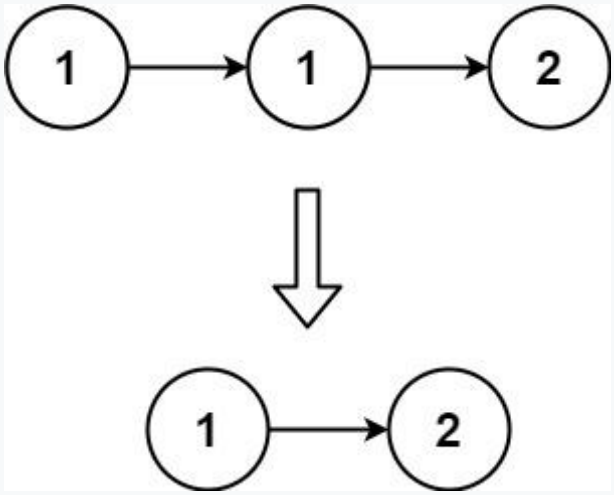
Example 1:



Input: head = [4,5,1,9], node = 5
Output: [4,1,9]
Explanation: You are given the second node with value 5, the linked list should become 4 -> 1 -> 9 after calling your function.

Q-2) Remove Duplicates from Sorted List **(5 marks)**
https://leetcode.com/problems/remove-duplicates-from-sorted-list/
(Easy)
Given the head of a sorted linked list, *delete all duplicates such that each element appears only once*. Return *the linked list sorted as well*.

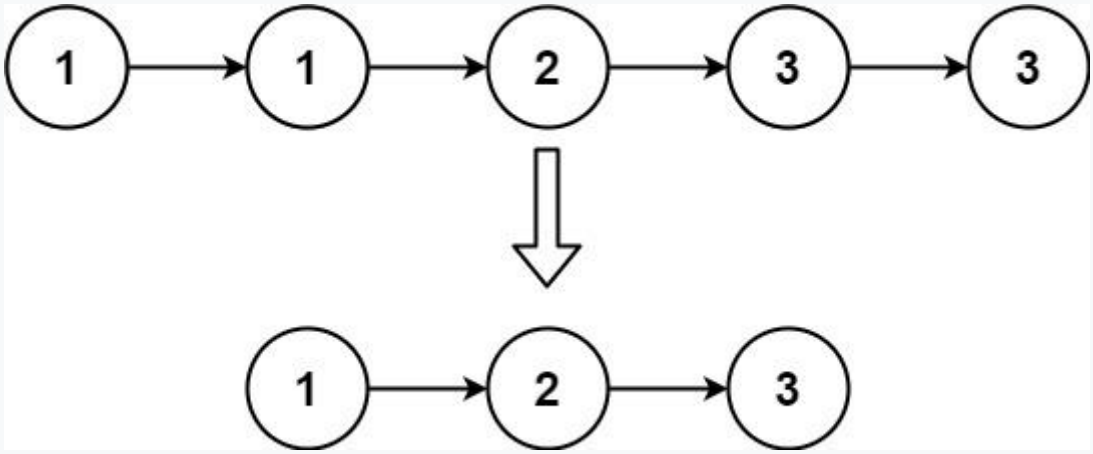
Example 1:



Input: head = [1,1,2]

Output: [1,2]

Example 2:



Input: head = [1,1,2,3,3]

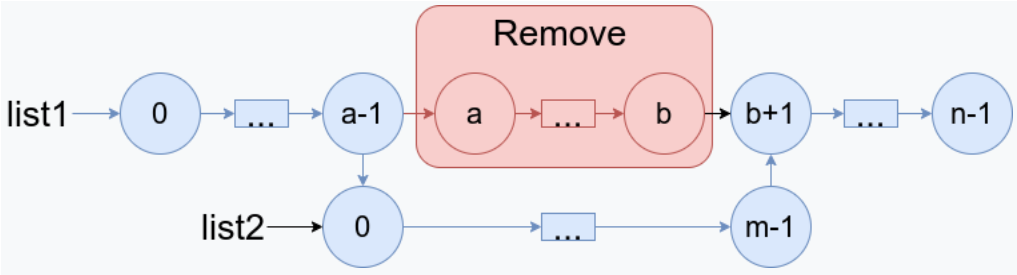
Output: [1,2,3]

Q-3) Merge In Between Linked Lists **(5 marks)**
https://leetcode.com/problems/merge-in-between-linked-lists/
(Medium)

You are given two linked lists: list1 and list2 of sizes n and m respectively.

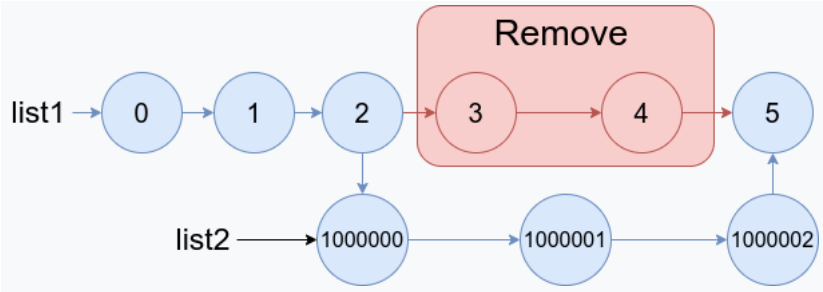
Remove list1's nodes from the ath node to the bth node, and put list2 in their place.

The blue edges and nodes in the following figure incidate the result:



Build the result list and return its head.

Example 1:



Input: list1 = [0,1,2,3,4,5], a = 3, b = 4, list2 = [1000000,1000001,1000002]

Output: [0,1,2,1000000,1000001,1000002,5]

Explanation: We remove the nodes 3 and 4 and put the entire list2 in their place. The blue edges and nodes in the above figure indicate the result.

Marks distribution:
Question 1,2 and 3 carry 5 marks each.