Week 11- Day 2 : Coding Challenge

(Maximum marks -15)

Q-1) Write a program to remove first node from a linked list: (5 marks)

(Super Easy)

Example 1:

Input(elements in linked list)
2
5
6
8
3
Output(elements after removing head of the linked list**)**
5
6
8
3

Q-2) Convert Binary Number in a Linked List to Integer: (5 marks)

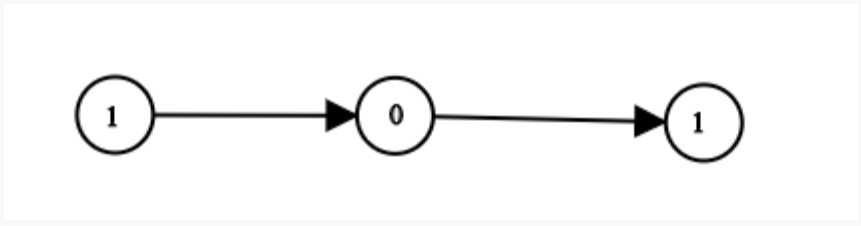
https://leetcode.com/problems/convert-binary-number-in-a-linked-list-to-integer/

(Easy)

Given head which is a reference node to a singly-linked list. The value of each node in the linked list is either 0 or 1. The linked list holds the binary representation of a number.

Return the *decimal value* of the number in the linked list.

Example 1:



Input: head = [1,0,1]
Output: 5
Explanation: (101) in base 2 = (5) in base 10

Q-3) Middle of the Linked List **(5 marks)**

https://leetcode.com/problems/middle-of-the-linked-list/

(Medium)

Given a non-empty, singly linked list with head node head, return a middle node of linked list.

If there are two middle nodes, return the second middle node.

Example 1:

Input: [1,2,3,4,5]

Output: Node 3 from this list (Serialization: [3,4,5])

The returned node has value 3. (The judge's serialization of this node is [3,4,5]).

Note that we returned a ListNode object ans, such that:

ans.val = 3, ans.next.val = 4, ans.next.next.val = 5, and ans.next.next.next = NULL.

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