

Lab Program 5(B)

1)

Program

LeetCode program :-

Code :-

```
struct ListNode* middleNode(struct ListNode* head) {  
    struct ListNode *slow = head;  
    struct ListNode *fast = head;  
  
    while (fast != NULL && fast->next != NULL) {  
        slow = slow->next;  
        fast = fast->next->next;  
    }  
  
    return slow;  
}
```

OUTPUT :-

Case 1 :-



The screenshot shows the LeetCode test case results for Case 1. It includes sections for Testcase, Test Result, Input, Output, and Expected.

Testcase | **Test Result**

Accepted Runtime: 0 ms

Case 1 Case 2

Input

```
head = [1,2,3,4,5]
```

Output

```
[3,4,5]
```

Expected

```
[3,4,5]
```

Case 2 :-

The screenshot shows a LeetCode test results interface. At the top, there are two tabs: "Testcase" (unchecked) and "Test Result" (checked). Below the tabs, the status is "Accepted" with a runtime of "0 ms". There are two buttons: "Case 1" (unchecked) and "Case 2" (checked). The "Input" section contains the code "head = [1,2,3,4,5,6]". The "Output" section contains "[4,5,6]". The "Expected" section also contains "[4,5,6]".

2)

LeetCode program :-

Code :-

```
struct ListNode* removeElements(struct ListNode* head, int val) {  
    while (head != NULL && head->val == val) {  
        head = head->next;  
    }  
  
    struct ListNode *curr = head;  
  
    while (curr != NULL && curr->next != NULL) {  
        if (curr->next->val == val) {  
            curr->next = curr->next->next;  
        } else {  
            curr = curr->next;  
        }  
    }  
  
    return head;  
}
```

OUTPUT : -

Case 1 : -

Testcase | >_ Test Result

Accepted Runtime: 0 ms

Case 1 Case 2 Case 3

Input

```
head =  
[1,2,6,3,4,5,6]
```

val =
6

Output

```
[1,2,3,4,5]
```

Expected

```
[1,2,3,4,5]
```

Case 2 : -

Testcase | >_ Test Result

Accepted Runtime: 0 ms

Case 1 Case 2 Case 3

Input

```
head =  
[]
```

val =
1

Output

```
[]
```

Expected

```
[]
```

Case 3 :-

Testcase | [Test Result](#)

Accepted Runtime: 0 ms

Case 1 Case 2 Case 3

Input

```
head =
[7,7,7,7]
```

val =

```
7
```

Output

```
[]
```

Expected

```
[]
```