

## 203. Remove Linked List Elements

```
#include <stdio.h>
#include <stdlib.h>

struct ListNode {
    int val;
    struct ListNode* next;
};

struct ListNode* removeElements(struct ListNode* head, int val) {

    while (head != NULL && head->val == val) {
        struct ListNode* temp = head;
        head = head->next;
        free(temp);
    }

    struct ListNode* curr = head;
    while (curr != NULL && curr->next != NULL) {
        if (curr->next->val == val) {
            struct ListNode* temp = curr->next;
            curr->next = curr->next->next;
            free(temp);
        } else {
            curr = curr->next;
        }
    }
}
```

```
    return head;
}

void printList(struct ListNode* head) {
    struct ListNode* p = head;
    while (p != NULL) {
        printf("%d ", p->val);
        p = p->next;
    }
    printf("\n");
}

int main() {
    int n, val;

    printf("Enter number of nodes: ");
    scanf("%d", &n);

    struct ListNode* head = NULL;
    struct ListNode* tail = NULL;

    printf("Enter %d values:\n", n);
    for (int i = 0; i < n; i++) {
        int x;
        scanf("%d", &x);

        struct ListNode* newNode = (struct ListNode*)malloc(sizeof(struct ListNode));
        newNode->val = x;
        newNode->next = NULL;
```

```
if (head == NULL){  
    head = tail = newNode;  
}  
else {  
    tail->next = newNode;  
    tail = newNode;  
}  
  
printf("Enter value to remove: ");  
scanf("%d", &val);  
  
head = removeElements(head, val);  
  
printf("List after removal:\n");  
printList(head);  
  
return 0;  
}
```

```
Enter number of nodes: 5  
Enter 5 values:  
1  
2  
3  
2  
5  
Enter value to remove: 2  
List after removal:  
1 3 5
```