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/**
 * Definition for singly-linked list.
 * struct ListNode {
 *     int val;
 *     struct ListNode *next;
 * };
 */
struct ListNode* removeNthFromEnd(struct ListNode* head, int n){
    struct ListNode* record_head;
    struct ListNode* record_tail;
    struct ListNode* tmp;
    struct ListNode* prev;
    int index;

    record_head = head;
    record_tail = head;
    tmp = record_head;
    prev = NULL;

    while(true)
    {
        index = 0;

        while( (index < n) && (NULL != tmp) )
        {
            tmp = tmp->next;
            index++;
        }

        if(NULL == tmp)
        {
            break;
        }
        prev = record_head;
        record_head = record_head->next;
        tmp = record_head;
    }

    if(prev == NULL)
    {
        head = record_head->next;
    }else
    {
        prev->next = record_head->next;
    }

    return head;
}

```