一、题目说明

题目141. Linked List Cycle，给一个链表，判断是否有环。难度是Easy!

二、我的解答

遍历链表，访问过的打上标记即可。

```
class Solution{
    public:
        bool hasCycle(ListNode* head){
            while(head!=NULL){
                if(head->val == INT_MAX) {
                    return true;
                }
                head->val = INT_MAX;
                head = head->next;
            }
            if(head==NULL)return false;
            else return true;
        }
};
```

```
Runtime: 4 ms, faster than 99.89% of C++ online submissions for Linked List
Cycle.
Memory Usage: 9.9 MB, less than 50.00% of C++ online submissions for Linked List
Cycle.
```

三、优化措施

快慢指针法，这个不破坏原链表。

```
class Solution{
    public:
        bool hasCycle(ListNode* head){
            if(head==NULL || head->next==NULL){
                return false;
            }
            ListNode* fast = head->next,*slow = head;
            while(fast != slow){
                if(fast==NULL || slow==NULL){
                    return false;
                }
                slow = slow->next;
                fast= fast->next;
                if(fast!=NULL) {
                    fast=fast->next;
                }else{
                    return false;
                }
            }
            return true;
        }
```

```
};
```

```
Runtime: 12 ms, faster than 77.13% of C++ online submissions for Linked List Cycle.
Memory Usage: 9.8 MB, less than 75.00% of C++ online submissions for Linked List Cycle.
```