删除链表中重复节点

题目描述

在一个排序的链表中，存在重复的结点，请删除该链表中重复的结点，重复的结点不保留，返回链表头指针。 例如，链表 1->2->3->3->4->4->5 处理后为 1->2->5

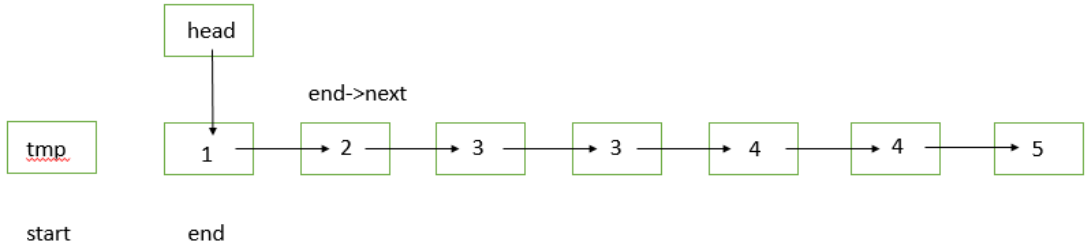
示例 1

输入

```
{1,2,3,3,4,4,5}
```

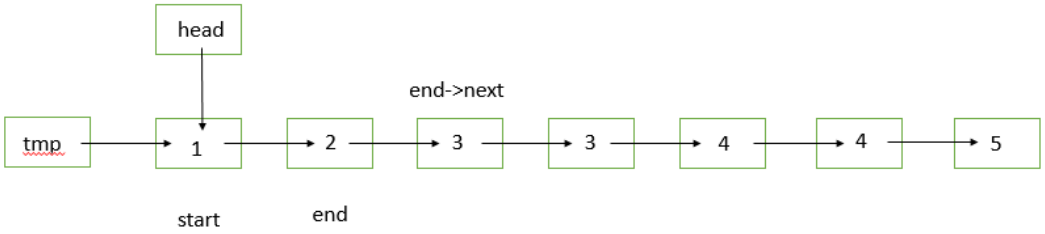
返回值

```
{1,2,5}
```



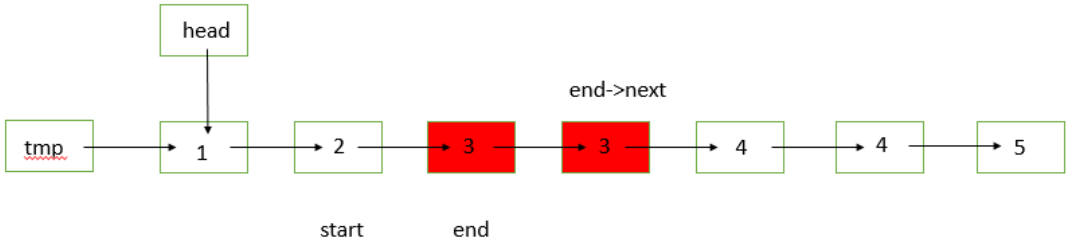

```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
```

```
            }
            else
            {
                start=end;
                end=end->next;
            }
        }
        return tmp->next;
    }
};
```



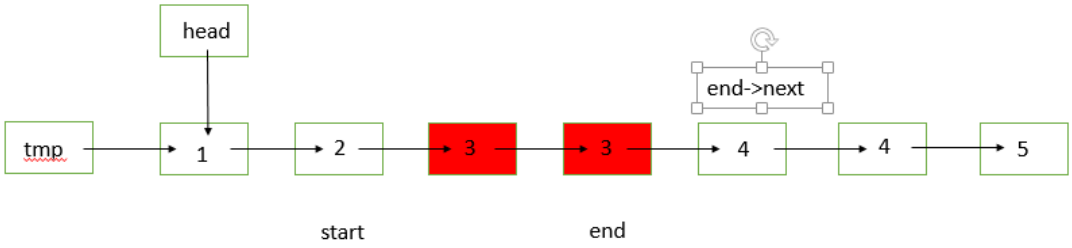

```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
            }
            else
            {
                start=end;
                end=end->next;
```

```
            }
        }
        return tmp->next;
    }
};
```

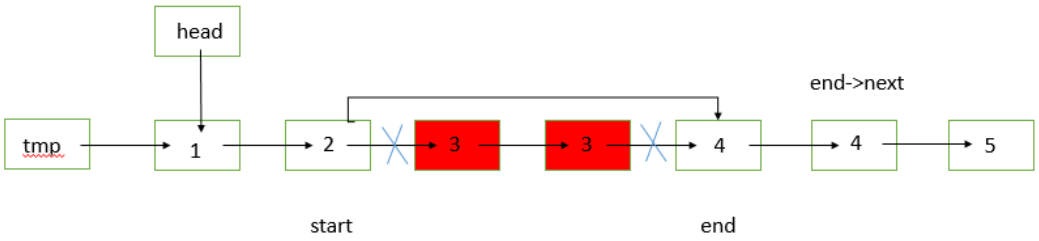



```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
            }
            else
            {
                start=end;
                end=end->next;
            }
        }
        return tmp->next;
```

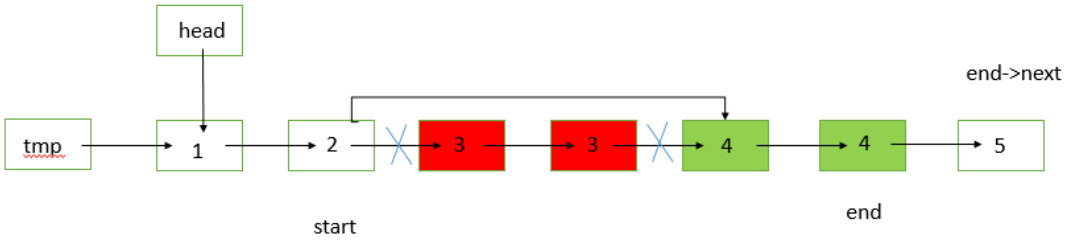
```
    }
};
```



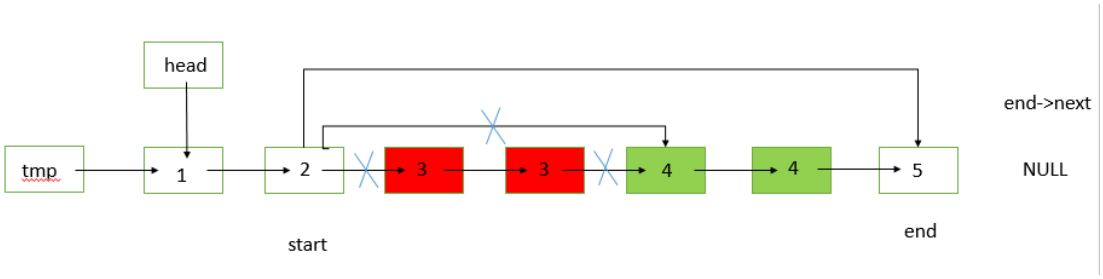

```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
            }
            else
            {
                start=end;
                end=end->next;
            }
        }
        return tmp->next;
    }
};
```




```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
            }
            else
            {
                start=end;
                end=end->next;
            }
        }
        return tmp->next;
    }
};
```




```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
            }
            else
            {
                start=end;
                end=end->next;
            }
        }
        return tmp->next;
    }
};
```




```
class Solution {
public:
    ListNode* deleteDuplication(ListNode* pHead)
    {
        if(pHead==NULL)
        {
            return NULL;
        }
        ListNode* tmp=(ListNode*)malloc(sizeof(ListNode));
        tmp->next=pHead;
        ListNode* start=tmp;
        ListNode* end=pHead;
        while(end!=NULL)
        {
            if(end->next!=NULL&&end->val==end->next->val)
            {
                while(end->next!=NULL&&end->val==end->next->val)
                {
                    end=end->next;
                }
                end=end->next;
                start->next=end;
            }
            else
            {
                start=end;
                end=end->next;
            }
        }
        return tmp->next;
    }
};
```