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1  #include<bits/stdc++.h>
2  using namespace std;
3  class node{
4      public:
5          int info;
6          node *next;
7          node *prev;
8  };
9  void creation(node **head,int data)
10 {
11     node *ptr=new node;
12     ptr->info=data;
13     ptr->next=NULL;
14     ptr->prev=NULL;
15     node *temp=*head;
16     if(( *head)==NULL)
17     {
18         *head=ptr;
19     }
20     else
21     {
22         while(temp->next!=NULL)
23         {
24             temp=temp->next;
25         }
26         temp->next=ptr;
27         ptr->prev=temp;
28     }
29 }
30
31 void first_deletion(node **head)
32 {
33     node *temp=*head;
34     *head=temp->next;
35     delete temp;
36 }
37 void last_deletion(node **head)
38 {
39     node *ptr=new node;
40     node *temp=*head;
41     while(temp->next!=NULL)
42     {
43         ptr=temp;
44         temp=temp->next;
45     }
46     ptr->next=NULL;
47     delete temp;
48 }
49 void delete_position(node **head,int pos)
50 {
51     node *ptr=new node;
52     node *temp=*head;
53     if(pos==1)
54     {
55         *head=temp->next;
56         delete temp;
57     }
58     else
59     {
60         while(--pos)
61         {
62             ptr=temp;
63             temp=temp->next;
64         }
65         ptr->next=temp->next;
66         delete temp;

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67     }
68
69 }
70 void delete_data(node **head,int val)
71 {
72     node *ptr=new node;
73     node *temp=*head;
74     if(temp->info==val)
75     {
76         *head=temp->next;
77         delete temp;
78     }
79     else
80     {
81         while(temp->info!=val)
82         {
83             ptr=temp;
84             temp=temp->next;
85         }
86         ptr->next=temp->next;
87         delete temp;
88     }
89 }
90 void print(node **head)
91 {
92     node *temp=*head;
93     while(temp!=NULL)
94     {
95         cout<<temp->info<<" ";
96         temp=temp->next;
97     }
98     cout<<endl;
99 }
100 int main()
101 {
102     node *head=new node;
103     head=NULL;
104     int data,i,n,pos,val;
105     cin>>n;
106     for(i=0;i<n;i++)
107     {
108         cin>>data;
109         creation(&head,data);
110     }
111     print(&head);
112     /*first_deletion(&head);
113     print(&head);
114     last_deletion(&head);
115     print(&head);
116     cin>>pos;
117     delete_position(&head,pos);
118     print(&head);*/
119     cin>>val;
120     delete_data(&head,val);
121     print(&head);
122 }

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