

```

1 //stack
2
3 #include<stdio.h>
4 #include<stdlib.h>
5
6 struct node
7 {
8     int data;
9     struct node *next;
10 };
11
12 void push(struct node **headptr,int value)
13 {
14     struct node *newnode,*temp;
15     newnode = (struct node*)malloc(sizeof(struct node));
16     newnode->data = value;
17     newnode->next = NULL;
18     temp = *headptr;
19     if(temp == NULL)
20     {
21         *headptr = newnode;
22     }
23     else
24     {
25         while(temp->next != NULL)
26             temp = temp->next;
27         temp->next = newnode;
28     }
29 }
30 void pop(struct node **headptr)
31 {
32     struct node *temp;
33     temp = *headptr;
34     if(temp == NULL)
35     {
36         printf("The list is Empty!!!\n");
37         return;
38     }
39     else if(temp->next == NULL)
40     {
41         *headptr = NULL;
42         printf("Last Element has been Deleted\n");
43         return;
44     }

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45     else
46     {
47         while((temp->next)->next != NULL)
48             temp = temp->next;
49         temp->next = NULL;
50         printf("Top Element has been Deleted\n");
51     }
52 }
53 void display(struct node *temp)
54 {
55     if(temp == NULL)
56     {
57         printf("The list is Empty!!!\n");
58         return;
59     }
60     else
61     {
62         while(temp!=NULL)
63         {
64             printf("%d\t",temp->data);
65             temp = temp->next;
66         }
67         printf("\n");
68     }
69 }
70
71 int main(int argc, char **argv)
72 {
73     struct node *head = NULL;
74     int choice,ele;
75     while(choice != 4)
76     {
77         printf("Enter choice 1)Push 2)Pop 3)Display 4)Exit: ");
78         scanf("%d",&choice);
79         switch(choice)
80         {
81             case 1:printf("Enter value:");scanf("%d",&ele);push(&head,ele);break;
82             case 2:pop(&head);break;
83             case 3:display(head);break;
84             case 4:exit(0);
85             default:exit(0);
86         }
87     }
88     return 0;

```