

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 typedef struct node{
5     int data;
6     struct node *link;
7 }node;
8
9 node *top=NULL;
10
11
12
13 void push()
14 {
15     node *temp;
16     temp=(node *)malloc(sizeof(node));
17     printf("Enter node element\n");
18     scanf("%d",&temp->data);
19     temp->link=NULL;
20
21     if(top==NULL)
22     {
23         top=temp;
24     }
25     else
26     {
27         temp->link=top;
28         top=temp;
29     }
30 }
31
32 void pop()
33 {
34
35     node *temp;
36
```



```
29 }
30 }
31
32 void pop()
33 {
34
35     node *temp;
36
37     if(top==NULL)
38     {
39         printf("Stack is empty\n");
40     }
41
42     else
43     {
44         temp=top;
45         top=temp->link;
46         temp->link=NULL;
47         free(temp);
48     }
49
50 }
51
52
53 void display()
54 {
55     node *temp=top;
56     if(temp==NULL)
57     {
58         printf("Stack is empty\n");
59     }
60     else
61     {
62         while(temp!=NULL)
63         {
64             printf("%d |",temp->data);
65             temp=temp->link;
```



```
60 }
61
62
63 void display()
64 {
65     node *temp=top;
66     if(temp==NULL)
67     {
68         printf("Stack is empty\n");
69     }
70     else
71     {
72         while(temp!=NULL)
73         {
74             printf("%d |",temp->data);
75             temp=temp->link;
76         }
77         printf("\n");
78     }
79 }
80
81 int main()
82 {
83
84     int op,len;
85     printf("\n1.Push\n2.Pop\n3.Display\n4.Exit\n");
86     while(1)
87     { printf("Enter the operation ");
88
89         scanf("%d",&op);
90         switch (op)
91         {
92             case 1:push();
93                 break;
94             case 2: pop();
95                 break;
```



```

59 }
60 else
61 {
62     while(temp!=NULL)
63     {
64         printf("%d |",temp->data);
65         temp=temp->link;
66     }
67     printf("\n");
68 }
69 }
70
71 int main()
72 {
73
74     int op,len;
75     printf("\n1.Push\n2.Pop\n3.Display\n4.Exit\n");
76     while(1)
77     { printf("Enter the operation ");
78
79         scanf("%d",&op);
80         switch (op)
81         {
82             case 1:push();
83                 break;
84             case 2: pop();
85                 break;
86             case 3: display();
87                 break;
88             case 4: exit(0);
89                 break;
90             default: printf("No such operation\n");
91         }
92     }
93     return 0;
94 }

```



```
1.Push
2.Pop
3.Display
4.Exit
Enter the operation 1
Enter node element
12
Enter the operation 1
Enter node element
23
Enter the operation 1
Enter node element
34
Enter the operation 1
Enter node element
6
Enter the operation 3
6 34 23 12
Enter the operation 2
Enter the operation 2
Enter the operation 2
Enter the operation 3
12
Enter the operation 2
Enter the operation 3
Stack is empty
Enter the operation
```

