main.c

Run

Output

```
84 {
85      int item;
86      struct node *ptr;
87      if (head == NULL)
88      {
89          printf("Underflow");
90      }
91      else
92      {
93          item = head->val;
94          ptr = head;
95          head = head->next;
96          free(ptr);
97          printf("Item popped");
98
99      }
100 }
101 void display()
102 {
103     int i;
104     struct node *ptr;
105     ptr=head;
106     if(ptr == NULL)
107     {
108         printf("Stack is empty\n");
109     }
110     else
111     {
112         printf("Printing Stack elements \n");
113         while(ptr!=NULL)
114         {
115             printf("%d\n",ptr->val);
116             ptr = ptr->next;
117         }
118     }
119 }
```

```
1
Enter the value12
Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
Enter your choice
1
Enter the value23
Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
 Enter your choice
1
Enter the value23
3Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
 Enter your choice

3
Printing Stack elements
```

Linked List Implementation of St... | Online C Compiler

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main.c

Run | Output

```
67              ptr->val = val;
68              ptr -> next = NULL;
69              head=ptr;
70          }
71          else
72          {
73              ptr->val = val;
74              ptr->next = head;
75              head=ptr;
76
77          }
78          printf("Item pushed");
79
80      }
81  }
82
83  void pop()
84  {
85      int item;
86      struct node *ptr;
87      if (head == NULL)
88      {
89          printf("Underflow");
90      }
91      else
92      {
93          item = head->val;
94          ptr = head;
95          head = head->next;
96          free(ptr);
97          printf("Item popped");
98
99      }
100 }
101 void display()
```

```
1
Enter the value12
Item pushed

Chose one from the below options...

1.Push
2.Pop
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4.Exit
Enter your choice
1
Enter the value23
Item pushed

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2.Pop
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4.Exit
Enter your choice
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Enter the value23
3Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
Enter your choice

3
Printing Stack elements
```

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main.c

```
34              break;
35          }
36          case 3:
37          {
38              display();
39              break;
40          }
41          case 4:
42          {
43              printf("Exiting....");
44              break;
45          }
46          default:
47          {
48              printf("Please Enter valid choice ");
49          }
50      };
51  }
52  }
53  void push ()
54  {
55      int val;
56      struct node *ptr = (struct node*)malloc(sizeof(struct node));
57      if(ptr == NULL)
58      {
59          printf("not able to push the element");
60      }
61      else
62      {
63          printf("Enter the value");
64          scanf("%d",&val);
65          if(head==NULL)
66          {
67              ptr->val = val;
68              ptr -> next = NULL;
69              head=ptr;
```

Run

Output

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Enter the value12
Item pushed

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3Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
 Enter your choice

3
Printing Stack elements
```

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Online Compiler

main.c

Run

Output

```c
#include <stdio.h>
#include <stdlib.h>
void push();
void pop();
void display();
struct node
{
int val;
struct node *next;
};
struct node *head;

void main ()
{
    int choice=0;
    printf("\n*********Stack operations using linked list*********\n");
    printf("\n----------------------------------------------\n");
    while(choice != 4)
    {
        printf("\n\nChose one from the below options...\n");
        printf("\n1.Push\n2.Pop\n3.Show\n4.Exit");
        printf("\n Enter your choice \n");
        scanf("%d",&choice);
        switch(choice)
        {
            case 1:
            {
                push();
                break;
            }
            case 2:
            {
                pop();
                break;
            }
            case 3:
```

```
1
Enter the value12
Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
Enter your choice
1
Enter the value23
Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
 Enter your choice
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Enter the value23
3Item pushed

Chose one from the below options...

1.Push
2.Pop
3.Show
4.Exit
 Enter your choice

3
Printing Stack elements
```