

```
8 ****  
9 #include <stdio.h>  
10 #define MAX 10  
11 int stack[MAX],top=-1;  
12 void push(int stack[],int val);  
13 int pop();  
14 int peep(int stack[]);  
15 void display();  
16 int main()  
17 {  
18     int choice,val;  
19     //clrscr();  
20     while(1)  
21     {  
22         printf("\nMain Menu");  
23         printf("\n1 Push");  
24         printf("\n2.Pop");  
25         printf("\n3.Display");  
26         printf("\n4.Peep");  
27         printf("\n5.Exit");  
28         printf("\n Enter your choice:");  
29         scanf("%d",&choice);  
30         switch (choice)  
31         {  
32             case 1: push(stack,val);  
33             break;  
34             case 2: pop();  
35             break;  
36             case 3: display();  
37             break;  
38         }  
39     }  
40 }
```

```
36     case 3: display();
37     break;
38     case 4: peep(stack);
39     break;
40     case 5: exit(1);
41   }
42 }
43 }
44 void push(int stack[],int val)
45 {
46   if(top==(MAX-1))
47   {
48     printf("\nStack Overflow");
49   }
50   else
51   {
52     printf("\nEnter the element to be pushed on to the stack:");
53     scanf("%d",&val);
54     top++;
55     stack[top] = val;
56   }
57 }
58 int pop()
59 {
60   int val;
61   if(top==-1)
62   {
63     printf("\nStack Underflow");
```

Line 63

```
63     printf("\nStack Underflow");
64     return -1;
65 }
66 else
67 {
68     printf("\nEnter popped from stack: %d ",stack[top]);
69     top--;
70     return val;
71 }
72 }
73 void display()
74 {
75     int i;
76     if (top== -1)
77         printf("No element in stack");
78     else
79     {
80         printf("\nElements in stack: \n");
81         for(i=top;i>=0;i--)
82             printf("\n%d",stack[i]);
83     }
84 }
85 int peep(int stack[])
86 {
87     if(top== -1)
88     {
```

```
88     {
89         printf("\n stack is empty");
90         return -1;
91     }
92     else
93     printf("\nThe value stored on the top of the stack is:%d",stack[top]);
94     return (stack[top]);
95 }
```

```
main.c:40:21: note: include '<stdlib.h>' or provide a declaration of 'exit'
```

```
Main Menu  
1 Push  
2.Pop  
3.Display  
4.Peepn5.Exit
```

```
Enter your choice:1
```

```
Enter the element to be pushed on to the stack:10
```

```
Main Menu  
1 Push  
2.Pop  
3.Display  
4.Peepn5.Exit
```

```
Enter your choice:1
```

```
Enter the element to be pushed on to the stack:15
```

```
Main Menu  
1 Push  
2.Pop  
3.Display  
4.Peepn5.Exit
```

```
Enter your choice:1
```

```
Enter the element to be pushed on to the stack:20
```

```
v ~ S input
Enter your choice:3

Elements in stack:

20
15
10
Main Menu
1 Push
2.Pop
3.Display
4.Peepn5.Exit
Enter your choice:2

Enter popped from stack: 20
Main Menu
1 Push
2.Pop
3.Display
4.Peepn5.Exit
Enter your choice:4

The value stored on the top of the stack is:15
Main Menu
1 Push
2.Pop
3.Display
4.Peepn5.Exit
Enter your choice:5
```

input

```
20
15
10
Main Menu
1 Push
2.Pop
3.Display
4.Peepn5.Exit
Enter your choice:2

Enter popped from stack: 20
Main Menu
1 Push
2.Pop
3.Display
4.Peepn5.Exit
Enter your choice:4

The value stored on the top of the stack is:15
Main Menu
1 Push
2.Pop
3.Display
4.Peepn5.Exit
Enter your choice:5

...Program finished with exit code 1
Press ENTER to exit console.
```