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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();
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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");

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```
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

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.
```