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9  #include<stdio.h>
10 int stack[100],choice,n,top,x,i;
11 void push(void);
12 void pop(void);
13 void display(void);
14 int main()
15 {
16     //clrscr();
17     top=-1;
18     printf("\n Enter the size of STACK[MAX=100]:");
19     scanf("%d",&n);
20     printf("\n\t STACK OPERATIONS USING ARRAY");
21     printf("\n\t-----");
22     printf("\n\t 1.PUSH\n\t 2.POP\n\t 3.DISPLAY\n\t 4.EXIT");
23     do
24     {
25         printf("\n Enter the Choice:");
26         scanf("%d",&choice);
27         switch(choice)
28         {
29             case 1:
30             {
31                 push();
32                 break;
33             }
34             case 2:
35             {

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33     }
34     case 2:
35     {
36         pop();
37         break;
38     }
39     case 3:
40     {
41         display();
42         break;
43     }
44     case 4:
45     {
46         printf("\n\t EXIT POINT ");
47         break;
48     }
49     default:
50     {
51         printf ("\n\t Please Enter a Valid Choice(1/2/3/4)");
52     }
53 }
54 }
55 }
56 while(choice!=4);
57 return 0;
58 }
59 void push()
60 {
61     if(top>=n-1)
62     {
63         printf("\n\tSTACK is over flow");
64     }

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60 {
61     if(top>=n-1)
62     {
63         printf("\n\tSTACK is over flow");
64     }
65     else
66     {
67         printf(" Enter a value to be pushed:");
68         scanf("%d",&x);
69         top++;
70         stack[top]=x;
71     }
72 }
73
74 void pop()
75 {
76     if(top<=-1)
77     {
78         printf("\n\t Stack is under flow");
79     }
80     else
81     {
82         printf("\n\t The popped elements is %d",stack[top]);
83         top--;
84     }
85 }
86 void display()
87 {
88     if(top>=0)
89     {
90         printf("\n\t The elements in STACK \n");

```



```

73 }
74 void pop()
75 {
76     if(top<=-1)
77     {
78         printf("\n\t Stack is under flow");
79     }
80     else
81     {
82         printf("\n\t The popped elements is %d",stack[top]);
83         top--;
84     }
85 }
86 void display()
87 {
88     if(top>=0)
89     {
90         printf("\n The elements in STACK \n");
91         for(i=top; i>=0; i--)
92             printf("\n%d",stack[i]);
93         printf("\n Press Next Choice");
94     }
95     else
96     {
97         printf("\n The STACK is empty");
98     }
99 }
100 }

```

Enter the size of STACK[MAX=100]:2

STACK OPERATIONS USING ARRAY

1.PUSH

2.POP

3.DISPLAY

4.EXIT

Enter the Choice:1

Enter a value to be pushed:11

Enter the Choice:1

Enter a value to be pushed:12

Enter the Choice:1

STACK is over flow

Enter the Choice:3

Enter the Choice:1

Enter a value to be pushed:12

Enter the Choice:1

STACK is over flow

Enter the Choice:3

The elements in STACK

I

12

11

Press Next Choice

Enter the Choice:2

The popped elements is 12

Enter the Choice:2

The popped elements is 11

Enter the Choice:3

The STACK is empty

Enter the Choice:3


```
12
11
Press Next Choice
Enter the Choice:2

    The popped elements is 12
Enter the Choice:2

    The popped elements is 11
Enter the Choice:3

The STACK is empty
Enter the Choice:3

The STACK is empty
Enter the Choice:4

    EXIT POINT

...Program finished with exit code 0
Press ENTER to exit console.
```