

```

1 #include <stdio.h>
2 #include <process.h>
3 #include <conio.h>
4 #define stack_size 5
5 int top=-1;
6 int s[10];
7 int item;
8 void push() {
9     if(top==stack_size-1) {
10         printf("Stack overflow\n");
11         return;
12     }
13     top=top+1;
14     s[top]=item;
15 }
16 int pop() {
17     if(top== -1)
18         return -1;
19     return s[top--];
20 }
21 void display() {
22     int i;
23     if(top== -1) {
24         printf("Stack is empty\n");
25         return;
26     }
27     printf("Contents of the stack:\n");
28     for(i=top;i>=0;i--)
29         printf("%d\n",s[i]);
30 }
31 int main() {
32     int item_deleted;
33     int ch;
34     for(;;) {
35         printf("\n1.Push\n2.Pop\n3.Display\n4.Exit");
36         printf("\nEnter choice:");
37         scanf("%d",&ch);
38         switch(ch) {
39             case 1:
40                 printf("\nEnter item to be inserted:");
41                 scanf("%d",&item);
42                 push();
43                 break;
44             case 2:
45                 item_deleted=pop();
46                 if(item_deleted== -1)
47                     printf("\nStack is empty\n");
48                 else
49                     printf("item deleted is %d\n",item_deleted);
50                 break;
51             case 3:
52                 display();
53                 break;
54             default:
55                 exit(0);
56             }
57         }
58     return 0;

```

C:\Windows\SYSTEM32\cmd.exe

```
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:1  
  
Enter item to be inserted:5  
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:1  
  
Enter item to be inserted:6  
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:1  
  
Enter item to be inserted:7  
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:1  
  
Enter item to be inserted:8  
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:1  
  
Enter item to be inserted:9  
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:1  
  
Enter item to be inserted:10  
Stack overflow  
1.Push  
2.Pop  
3.Display  
4.Exit  
Enter choice:3  
Contents of the stack:  
9  
8  
7  
6
```

```
0
5
1.Push
2.Pop
3.Display
4.Exit
Enter choice:2
item deleted is 9
1.Push
2.Pop
3.Display
4.Exit
Enter choice:2
item deleted is 8
1.Push
2.Pop
3.Display
4.Exit
Enter choice:2
item deleted is 7
1.Push
2.Pop
3.Display
4.Exit
Enter choice:2
item deleted is 6
1.Push
2.Pop
3.Display
4.Exit
Enter choice:2
item deleted is 5
1.Push
2.Pop
3.Display
4.Exit
Enter choice:2
Stack Underflow
1.Push
2.Pop
3.Display
4.Exit
Enter choice:3
Stack is empty
1.Push
2.Pop
3.Display
4.Exit
Enter choice:
```