

```

C stack.c > main()
1  #include<stdio.h>
2  #include<stdlib.h>
3  #define size 5
4  int stack[size];
5  int top=-1;
6  void push();
7  void pop();
8  void display();
9  void push()
10 {
11     int x;
12     if(top==size-1)
13         printf("stack overflow");
14     else{
15         printf("enter number to be inserted");
16         scanf("%d",&x);
17         top=top+1;
18         stack[top]=x;
19         printf("element inserted successfully");
20     }
21 }
22 }
23 void pop()
24 {
25     if(top== -1)
26
27         printf("stack underflow");
28     else{
29         printf("element deleted is %d",stack[top]);
30         top--;
31     }
32 }
33
34 }

```



```

35 void display()
36 {
37     if(top== -1)
38         printf("stack underflow");
39     else{
40         printf("elements in the stack are ");
41         for(int i=top; i>=0; i--)
42             printf("%d", stack[i]);
43     }
44 }
45 void main()
46 {
47     int choice;
48     while(1)
49     {
50         printf("\n\n1.push\n2.pop\n3.display\n4.end\n");
51         printf("enter your choice");
52         scanf("%d",&choice);
53         switch(choice)
54         {
55             case 1:push();
56             break;
57             case 2:
58                 pop();
59                 break;
60             case 3:
61                 display();
62                 break;
63             case 4:
64                 exit(0);
65             default:printf("invalid choice");

```

```
switch(choice)
{
    case 1:push();
    break;
    case 2:
    pop();
    break;
    case 3:
    display();
    break;
    case 4:
    exit(0);
    default:printf("invalid choice");
}
}
```

```
1.push
2.pop
3.display
4.end
enter your choice1
enter number to be inserted3
element inserted successfully
```

```
1.push
2.pop
3.display
4.end
enter your choice1
enter number to be inserted5
element inserted successfully
```

```
1.push
2.pop
3.display
4.end
enter your choice1
enter number to be inserted8
element inserted successfully
```

```
1.push
2.pop
3.display
4.end
enter your choice1
enter number to be inserted7
element inserted successfully
```

```
1.push
2.pop
3.display
4.end
enter your choice1
enter number to be inserted9
element inserted successfully
```

```
1.push
2.pop
3.display
4.end
enter your choice1
stack overflow
```

```
1.push
2.pop
3.display
4.end
enter your choice3
elements in the stack are 97853
```

```
1.push
2.pop
3.display
4.end
enter your choice2
element deleted is 9
```

```
1.push
2.pop
3.display
4.end
enter your choice2
element deleted is 7
```

```
1.push
2.pop
3.display
4.end
enter your choice2
element deleted is 8
```

```
1.push
2.pop
3.display
4.end
enter your choice2
element deleted is 5
```

```
1.push
2.pop
3.display
4.end
enter your choice2
element deleted is 3
```

```
1.push
2.pop
3.display
4.end
enter your choice2
stack underflow
```

```
1.push
2.pop
3.display
4.end
enter your choice3
stack underflow
```

```
1.push
2.pop
3.display
4.end
enter your choice6
invalid choice
```

```
1.push
2.pop
3.display
4.end
enter your choice4
PS C:\Users\Admin\Desktop\rashi> █
```