```c
#include <stdio.h>

int STK[100], TOP = -1, i, n, x, choice;
void Push();
void Pop();
void Peep();
void Display();


int main(){
        printf("WELCOME to Implementation of STACK using array \n");
        printf("Enter the size of Stack (Max = 100): ");
        scanf("%d", &n);

      do {
              printf("\n Stack Operation available: ");
              printf("1.Push\t 2.Pop\t 3.Peep\t 4.Display\t 5.Exit \n");
              printf(" \nEnter your choice: \n");
              scanf("%d", &choice);
              switch (choice)
              {
              case 1:
                  Push();
                  break;
              case 2:
                  Pop();
                  break;
              case 3:
                  Peep();
                  break;
              case 4:
                  Display();
                  break;
              case 5:
                  printf("Exit: Program Finished !! ");
                  break;
              default:
                  printf("\n Please enter a valid choice: 1, 2, 3, 4, 5");

              }
          }while(choice != 5);
          return 0;
      }
```

```c
44
45
46 void Push()
47 {
48     if (TOP >= n - 1)
49     {
50         printf(" Stack Overflow \n");
51     }
52     else
53     {
54         printf(" Enter the element to be pushed: ");
55         scanf("%d", &x);
56         TOP++;
57         STK[TOP] = x;
58     }
59 }
60
61
62 void Pop(){
63     if (TOP<0)
64     {
65         printf ("stack under flow \n");
66     }
67     else{
68         printf("the popped element is: %d \n",STK[TOP]);
69         TOP--;
70     }
71
72 }
73
74
75 void Peep(){
76     printf("enter position of element you want to peep");
77     scanf("%d", &i);
78     if(n -i + 1<0){
79         printf("stack under flow on peep \n");
80     }
81     else{
82         printf("the %d element from top is : %d \n",i,STK[n - i +1]);
83     }
84 }
85

87 void Display(){
88     if (n< 0)
89     {
90         printf(" Stack is empty \n");
91     }
92     else
93     {
94         printf(" The element in the stack are:");
95         for (i = n; i > -1; i--){
96             printf("\n %d \n", STK[i]);
97         }
98     }
99 }
```

```
dl0410@itadmin:~$ gedit meet.c
dl0410@itadmin:~$ gcc meet.c
dl0410@itadmin:~$ ./a.out
WELCOME to Implementation of STACK using array
Enter the size of Stack (Max = 100): 4

 Stack Operation available: 1.Push      2.Pop   3.Peep  4.Display      5.Exit

Enter your choice:
1
 Enter the element to be pushed: 3

 Stack Operation available: 1.Push      2.Pop   3.Peep  4.Display      5.Exit

Enter your choice:
1
 Enter the element to be pushed: 2

 Stack Operation available: 1.Push      2.Pop   3.Peep  4.Display      5.Exit

Enter your choice:
1
 Enter the element to be pushed: 4

 Stack Operation available: 1.Push      2.Pop   3.Peep  4.Display      5.Exit

Enter your choice:
4
 The element in the stack are:
 4

 2

 3

 Stack Operation available: 1.Push      2.Pop   3.Peep  4.Display      5.Exit

Enter your choice:
2
the popped element is: 4

 Stack Operation available: 1.Push      2.Pop   3.Peep  4.Display      5.Exit

Enter your choice:
3
enter position of element you want to peep3
stack under flow on peep
```