```c
#include<stdio.h>
int STK[100],TOP=-1,i,n,x,choice;
void Push();
void Pop();
void Peep();
void Display();
void main()
{
printf("Welcome to implementation of stack array!\n");
printf("Enter the size of the stack(Maximum size=100)\n");
scanf("%d",&n);
do
{
printf("Stack operations available are\n");
printf("1.Push\n2.Pop\n3.Peep\n4.Display\n5.Exit\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("Program Finished\n");
break;
default:
printf("WRONG CHOICE!\n");
}
}
while(choice!=5);
}
```

```
void Push()
{
if(TOP>=n-1)
{
printf("Stack Overflow\n");
}
else
{
printf("Enter the element to be Pushed\n");
scanf("%d",&x);
TOP++;
STK[100]=x;
}
}

void Pop()
{
if(TOP<0)
{
printf("Stack Underflow\n");
}
else
{
printf("The Popped element is %d\n",STK[TOP]);
TOP--;
}
}
void Peep()
{
printf("Enter the position of the element from the top from which you wish to Peep\n");
scanf("%d",&i);
if(TOP-i+1<0)
{
printf("Stack Underflow on Peep\n");
}
else
{
printf("The %d element from the top is:%d\n",i,STK[TOP-i+1]);
}
}
void Display()
{
if(TOP<0)
{
printf("Stack is empty\n");
}
else
{
printf("The elements in the Stack are:");
for(i=TOP;i>-1;i--)
{
printf("\n %d \n",STK[i]);
}
}
}
```

```
dl406@itadmin:~$ gedit Exp1.c
dl406@itadmin:~$ gcc Exp1.c
dl406@itadmin:~$ ./a.out
Welcome to implementation of stack array!
Enter the size of the stack(Maximum size=1
3
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
1
Enter the element to be Pushed
5
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
1
Enter the element to be Pushed
8
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
1
Enter the element to be Pushed
6
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
4
The elements in the Stack are:
 6

 8

 5
```

```
The elements in the Stack are:
 5
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
5
Program Finished
```

```
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
2
The Popped element is 6
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
2
The Popped element is 8
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
4
The elements in the Stack are:
 5
Stack operations available are
1.Push
2.Pop
3.Peep
4.Display
5.Exit
3
Enter the position of the element from the top from which you wish to Peep
1
The 1 element from the top is:5
```