Input :

```c
#include<stdio.h>
int a[100],top=-1,i,n,choice,x;
void push();
void pop();
void peep();
void display();

void main()
{
 printf("Welcome to stack Implementation by using array!!!!\n");
 printf("Enter the size of stack maximum size = 100\n");
 scanf("%d",&n);
 do {
 printf("Enter 1 : for Push Operation\n");
 printf("Enter 2 : for Pop Operation\n");
 printf("Enter 3 : for Peep Operation\n");
 printf("Enter 4 : for Display Operation\n");
 printf("Enter 5 : for Exit Operation\n");
 scanf("%d",&choice);
 switch(choice)
 {
  case 1:
  push();
  break;

  case 2:
  pop();
  break;

  case 3:
  peep();
  break;

  case 4:
  display();
  break;


  default:
  printf("Wrong Input");
  break;
 }
 }while(choice!=5);
}
```

output:

```
}


void push()
{
 if(top>=n-1)
 {
  printf("stack Overflow\n");
 }

 else {
 printf("Enter the element to be pushed : ");
 scanf("%d",&x);
 top++;
 a[top]=x;
 }
}


void pop()
{
 if(top<0)
 {
  printf("Stack Underflow\n");
 }

 else
 {
  printf("The pop element is %d\n : ",a[top]);
  top--;
 }
}


void peep()
{
 printf("Enter the position of element you want to peep : ");
 scanf("%d",&i);
 if(top-i+1<0)
 {
```

```
 }
}

void peep()
{
 printf("Enter the position of element you want to peep : ");
 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,a[top-i+1]);
 }
}

void display()
{
 if(top<0)
 {
  printf("Stack is Empty\n");
 }

 else
 {
  printf("The Element in the stack are:");
  for(i=top;i>-1;i--)
  {
   printf("\n %d \n",a[i]);
  }
 }
}
```

```
Welcome to stack Implementation by using array!!!!
Enter the size of stack maximum size = 100
4
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
1
Enter the element to be pushed : 2
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
1
Enter the element to be pushed : 6
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
1
Enter the element to be pushed : 9
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
```

```
1
Enter the element to be pushed : 5
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
4
The Element in the stack are:
 5

 9

 6

 2
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
2
The pop element is 5
 : Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
2
The pop element is 9
 : Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
4
The Element in the stack are:
 6

 2
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
3
Enter the position of element you want to peep : 1
The 1 element from the top is 6
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
4
The Element in the stack are:
 6

 2
Enter 1 : for Push Operation
Enter 2 : for Pop Operation
Enter 3 : for Peep Operation
Enter 4 : for Display Operation
Enter 5 : for Exit Operation
5
Wrong Inputstudent@dl405-HP-ProDesk-400-G7-Microtower-PC:~$ gedit Exp1.c
```