```c
/* NAME          :MOHAMMED SINAN.P
   ROLL.NO       :39
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   PROGRAM        :IMPLEMENTATION OF STACK USING ARRAY
   INSTITUTION   :MES COLLEGE OF ENGINEERING */


#include<stdio.h>
int choice,top=-1,SIZE,stack[100],x,i;
void push();
void pop();
void peek();
void main()
{
    printf("Enter the size");
    scanf("%d",&SIZE);
    do
    {
        printf("\nMENU\n.....\n");
        printf("1.PUSH\n2.POP\n3.DISPLAY\n4.EXIT\n");
        printf("ENTER YOUR CHOICE\t");
        scanf("%d",&choice);
        switch(choice)
        {
            case 1:push();
                    break;
            case 2:pop();
                    break;
            case 3:peek();
                    break;
            case 4:printf("EXITED FROM MENU");
                    break;
                    default:("\nWrong selection");
        }

    }while(choice!=4);
}
void push()
{
    if(top==SIZE-1)
        printf("\n!!! OVERFLOW !!!");
    else
    {
        printf("Enter the element to be inserted:    ");
        scanf("%d",&x);
        top=top+1;
        stack[top]=x;
        printf("\nInsertion is success");
    }

}
void pop()
{
    if(top==-1)
        printf("\n!!! UNDERFLOW !!!");
    else
    {
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            printf("\nPopped Element:%d",stack[top]);
            top=top-1;
        }
}
void peek()
{
            if(top==-1)
            printf("\n!!! UNDERFLOW !!!");
        else
        {
            printf("\nStack elements are:\n");
            for(i=top;i>=0;i--)
                    printf("%d\n",stack[i]);
        }
}
```

Output :-

Enter the size
4

MENU
.....
1.PUSH
2.POP
3.DISPLAY
4.EXIT
ENTER YOUR CHOICE 1
Enter the element to be inserted: 5

Insertion is success
MENU
.....
1.PUSH
2.POP
3.DISPLAY
4.EXIT
ENTER YOUR CHOICE 1
Enter the element to be inserted: 7

Insertion is success
MENU
.....
1.PUSH
2.POP
3.DISPLAY
4.EXIT
ENTER YOUR CHOICE 1
Enter the element to be inserted: 3

Insertion is success
MENU
.....

1.PUSH
2.POP
3.DISPLAY
4.EXIT
ENTER YOUR CHOICE 2

Popped Element:3
MENU
.....
1.PUSH
2.POP
3.DISPLAY
4.EXIT
ENTER YOUR CHOICE 3

Stack elements are:
7
5

MENU
.....
1.PUSH
2.POP
3.DISPLAY
4.EXIT
ENTER YOUR CHOICE 4
EXITED FROM MENU