```
#include <stdio.h>
#define N 100
int stack[N];
int top=-1;

void push(){
    int x;
    printf("Enter a value: ");
    scanf("%d",&x);
    if (top==N-1){
        printf("Stack Overflow");
    }
    else{
        top++;
        stack[top]=x;
    }}

void pop(){
    if (top==-1){
        printf("Stack Underflow\n");
    }
    else{
        int val = stack[top];
        top--;
        printf("Deleted value is %d\n",val);
    }}
Void peek(){
    if (top==-1){
        printf("Stack Underflow\n");
    }
    else{
        printf("Top value is %d\n", stack[top]);
}}
```

```
void display() {
    if (top == -1) {
        printf("Stack Underflow, no elements are there\n");
    }
    else {
        printf("Elements are: ");
        for (int i=0; i<top; i++) {
            printf("%d ", stack[i]);
        }
    }
}

void main() {
    int c;
    printf("\n 1:push 2:pop 3:peek 4:display 5:exit");
    do {
        printf("Choose a number: ");
        scanf("%d", &c);
        switch (c) {
            case 1: {
                push();
                break;
            }
            case 2: {
                pop();
                break;
            }
            case 3: {
                peek();
                break;
            }
            case 4: {
                display();
                break;
            }
            case 5: {
                printf("exiting");
                break;
            }
        } while (c != 5);
    }
```

Output :-

1:push 2:pop 3:peek 4:display 5:exit

Choose a number : 2
Stack Underflow

Choose a number : 1
Enter a value : 1

Choose a number : 1
Enter a value : 2

Choose a number : 1
Enter a value : 3

Choose a number : 1
Enter a value : 4

Choose a number : 1
Enter a value : 6

Choose a number : 3
Top value is 6

Choose a number : 2
Deleted value is 6

Choose a number : 4
Elements are : 1 2 3 4

Choose a number : 5
exiting