

```
1 package stack_Implementation;
2
3 import java.util.Scanner;
4
5 class Stack{
6     final int max = 10;
7     int top;
8     int[] arr = new int[max];
9
10    Stack() {
11        top = -1;
12    }
13
14    boolean isEmpty() {
15        if(top== -1)
16            return true;
17        else
18            return false;
19    }
20
21    boolean isFull() {
22        if(top == max-1)
23            return true;
24        else
25            return false;
26    }
27
28    boolean push(Scanner sc) {
29        if(isFull()) {
30            System.out.println("Stack is full...");
31            return false;
32        }
33        else {
34            top++;
35            System.out.println("Enter value to the stack...");
36            int val = sc.nextInt();
37            arr[top] = val;
38            System.out.println("Item pushed.");
39            return true;
40        }
41    }
42
43    boolean pop() {
44        if(isEmpty())
45        {
46            System.out.println("Stack is empty...");
47            return false;
48        }
49        else {
50            System.out.println("Element deleted from stack..." + arr[top]);
51            top--;
52            return true;
53        }
54    }
55
56    boolean display() {
57        if(isEmpty()) {
```

```
58         System.out.println("Stack is empty...");
59         return false;
60     }
61     else {
62         for(int i=top;i>=0;i--) {
63             System.out.print(arr[i] + " ");
64         }
65         return true;
66     }
67 }
68 }
69 }
70 public class StackOperations {
71
72
73     public static void main(String[] args) {
74
75         Stack s_obj = new Stack();
76         Scanner sc = new Scanner(System.in);
77         int ch;
78
79         do {
80             System.out.println("\n Please enter your choice:\t 1. PUSH \t 2. POP \t 3. Display
\t 4. Quit.");
81             ch = sc.nextInt();
82
83             switch(ch){
84
85                 case 1:
86                     s_obj.push(sc);
87                     break;
88                 case 2:
89                     s_obj.pop();
90                     break;
91                 case 3:
92                     s_obj.display();
93                     break;
94                 case 4:
95                     System.exit(0);
96
97             }
98         }while(ch < 5);
99
100     }
101
102 }
103
```