

```

1  =====IntegerStack.java=====
2  package com.ameya.stack;
3
4  public class IntegerStack {
5      private int data[];
6      private int top;
7      private static final int SIZE=5;
8      public IntegerStack() {
9          data=new int[SIZE];
10         for(int i=0;i<SIZE;i++) {
11             data[i]=-1;
12         }
13         top=-1;
14         System.out.println("++++ Stack Initialized For "+SIZE+" elements +++++");
15         printStack();
16     }
17     public void push(int element) {
18         top+=1;
19         data[top]=element;
20     }
21     public boolean isFull() {
22         if(top==SIZE-1) {
23             return true;
24         }
25         return false;
26     }
27     public int pop() {
28         int element=data[top];
29         data[top]=-1;
30         top-=1;
31         return element;
32     }
33     public boolean isEmpty() {
34         if(top== -1) {
35             return true;
36         }
37         return false;
38     }
39     public int peek() {
40         return data[top];
41     }
42     public void printStack() {
43         for(int i : data) {
44             System.out.print(i+" ");
45         }
46         System.out.println("                TOP=>"+top);
47     }
48 }
49
50 =====TestStack.java=====
51 package com.ameya.test;
52
53 import com.ameya.stack.IntegerStack;
54
55 public class TestStack {
56
57     public static void main(String[] args) {
58         IntegerStack stack=new IntegerStack();
59         int element=10;
60         while(!stack.isFull()) {
61             stack.push(element);
62             element+=10;
63             stack.printStack();
64         }
65         System.out.println("++++ STACK FULL +++++");
66         while(!stack.isEmpty()) {
67             element=stack.pop();
68             stack.printStack();
69         }
70         System.out.println("++++ STACK EMPTY +++++");
71     }
72
73 }

```

