

```
1 // Growable_stk.java
2
3 import java.util.ArrayList;
4
5 public class Growable_stk implements Interface_STK {
6     private ArrayList<Integer> stack = new ArrayList
7     <>();
8     private int top = -1;
9
10    @Override
11    public void push(int element) {
12        stack.add(++top, element);
13    }
14
15    @Override
16    public int pop() {
17        if (underflow()) {
18            System.out.println("Growable Stack is
19            empty");
20            return -1;
21        } else {
22            int element = stack.get(top);
23            stack.remove(top--);
24            return element;
25        }
26    }
27
28    @Override
29    public void displayStack() {
30        for (int x : stack) {
31            System.out.print(x + " ");
32        }
33        System.out.println("");
34    }
35
36    @Override
37    public boolean overflow() {
38        return false; // Not applicable for growable
39        stack
40    }
```

```
39     @Override
40     public boolean underflow() {
41         return top == -1;
42     }
43 }
44
```