

ArrayStack.java

```
1 /*
2  * Written by JJ Shepherd
3  */
4 public class ArrayStack<T> implements StackI<T> {
5     private T[] stack;
6     private int head; //First null element
7     public static final int DEF_SIZE = 100;
8     public ArrayStack()
9     {
10         init(DEF_SIZE);
11     }
12     public ArrayStack(int size)
13     {
14         init(size);
15     }
16     public void init(int size)
17     {
18         head = 0;
19         if(size >= 1)
20             stack = (T[])(new Object[size]);
21         else
22             stack = (T[])(new Object[DEF_SIZE]);
23     }
24     public void push(T aData)
25     {
26         if(head >= stack.length)
27             return;
28         stack[head] = aData;
29         head++;
30     }
31     public T pop()
32     {
33         if(head == 0)
34             return null;
35         T ret = stack[head-1];
36         head--;
37         return ret;
38     }
39     public T peek()
40     {
41         if(head == 0)
42             return null;
43         return stack[head-1];
44     }
45     public void print()
46     {
47         for(int i = head-1; i >= 0; i--)
48             System.out.println(stack[i]);
49     }
50 }
51
```