

ArrayStack.java

```
1/*
2 * Written by JJ Shepherd
3 */
4public 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
```