Assignment 3.2: Stacks & Queues

Due: 8am, Wednesday, January 28, 2009

Directions

The problems for this assignment are described below. You will submit this assignment by uploading it to the class website as a Zip file. The file will be named "Q3A2-LastName.zip" (Quarter 3, Assignment 2), where [LastName] is obviously your last name. All of your submitted assignments will be named in this fashion. The Zip file will contain a folder of the same name (so, Q3A2-LastName), which will contain a folder for each of the subsequent problems. Each of these subfolders will have the name of its particular problem. Each of these problem subfolders will contain all of the necessary files for that particular problem. It's very important that you follow all of these naming conventions exactly as specified.

Problems

1) StackImplement

You will use a stack implementation (perhaps the one detailed in your book; you may use a stack built on either an ArrayList or LinkedList) to simply demonstrate the standard `push(Object obj)`, `pop()`, `isEmpty()`, and `peek()` methods. You should do something like push some integers onto the stack, print out all the values in the stack, pop off a few values, and then print the stack again. Note, it might be useful to make a separate `printStack` method in your tester for printing out all the values of the stack.

2) QueueImplement

Do the same thing in this problem as in StackImplement. You may use the queue implementation detailed in your book. You must use the queue methods `add(Object obj)`, `remove()`, `isEmpty()`, and `peek()`. After adding and removing some numbers, print out what the queue is. Add or remove a few more numbers, and then print out the queue again.