

Name: \_\_\_\_\_

**11c – Data Structures lab****Overview:**

This lab has you write a stack and queue. This practice not only gives you an understanding of these data structures, but practice with manipulating collections.

The main starter-code to test the Stack and Queue is supplied in MyCourses.

In no case may you use Java's Stack or Queue classes or functionality. You must write your own class to simulate a Stack and Queue.

**Stack**

Write a class named ExamStack that simulates a stack. **You must also modify the main program.** See TestExam2Stack.java for required methods and expected actions.

*Expected output for TestExam2Stack.java*

```
Top item is Epsilon
Stack removal of items:
> Epsilon
> Delta
> Gamma
> Beta
> Alpha
The stack is now empty. This is good.
```

**Queue**

Write a class named ExamQueue that simulates a queue. **You must also modify the main program.** See TestExam2Queue.java for required methods and expected actions.

*Expected output for TestExam2Queue.java*

```
Top item is Alpha
Queue removal of items:
> Alpha
> Beta
> Gamma
> Delta
> Epsilon
The Queue is now empty. This is good.
```