Lab 05: Circular Doubly Linked List

Use the provided source code included in this lab package. In this lab, we have a doubly-linked list (class StudentList) that stores information of a group of students, one node for one student. The information of students consists of their name, sex, and id. JUnit test is provided. Write the following methods for **class StudentList**:

1. Write method `public void swapNode(DListIterator i1, DListIterator i2)`, which swaps nodes pointed by `i1` and `i2`. There are two test cases which swap two nodes in the same list and two nodes from the different lists.

2. Write method `public void insertList(DListIterator i1, CDLinkedList lst)`, which insert the list `lst` after `i1`. In this method, if the `lst` is empty, do nothing.

3. Write method `public void gender(String g)`, which moves all students whose gender is same as `g` to the front of the list in the same order as in the original list. For example, if a list contains five students, e.g. a, b, c, d, and e. If only b and d are female and the input `g` is female. The original list must be changed to b, d, a, c, and e.

How to submit:

Make a jar file containing all your source code and submit it through Courseville. Name your file **YourID_Lab05.jar** where YourID is your student ID.