**Lab 03: 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 removeStudent(String id), which removes a student of a given id from this. If no such student is in the list, the method does nothing.
2. Write method public void appendQuick(CDLinkedList list2), which takes a circular doubly linked list, list2, and appends its data to the end of this. This method must not use any loop. You are to change pointers and update list size only. list2 is considered to be no longer usable after this method call. Our this list must not change in any way if list2 is an empty list.
3. Write method public void append(CDLinkedList list2), which takes a circular doubly linked list, list2, and appends **the copies** of all of its data to the end of this. All data must be added in such a way that list2 can still be operated on normally. Any future data changes in this does not affect list2, and vice versa.
4. Write method public CDLinkedList gender(int i). :
   1. This method returns a new linkedlist with all the **male** students from this as its contents if the value of i is 0. If there are no male students, return an empty list.
   2. This method returns a new linkedlist with all the **female** students from this as its contents if the value of i is 1. If there are no female students, return an empty list.
   3. Otherwise, if the value of i is not 1 or 2, return null.

**How to submit:**

Make a jar file containing all your source code and submit it through Courseville. Name your file **YourID\_Lab03.jar** where YourID is your student ID.