ECS 32B: Fall 2018
Homework Assignment 2

Due Date: No later than Saturday, October 27, 9:00pm

This homework assignment consists of the following programming exercises from Chapter 3 in your textbook. Details on how and where to submit your solutions will be forthcoming.

1. Programming Exercise 5 from Chapter 3 of your textbook. Name the class QueueX(), and use the other method names given in Chapter 3.11 in your digital textbook. (Note: this question is asking you to implement the Queue ADT with a Python list, not a linked list.)

2. Programming Exercise 19 from Chapter 3 of your textbook

3. Programming Exercise 22 from Chapter 3 of your textbook. Use the class and method names given in Chapter 3.4 in your digital textbook.

4. Programming Exercise 23 from Chapter 3 of your textbook. Use the class and method names given in Chapter 3.11 in your digital textbook.

5. Programming Exercise 24 from Chapter 3 of your textbook. Use the class and method names given in Chapter 3.16 in your digital textbook.

6. (Adapted from Exercise 27 in your textbook.) The linked list implementation given in your textbook is called a singly linked list because each node has a single reference to the next node in sequence. An alternative implementation is known as a doubly linked list. In this implementation, each node has a reference to the next node (commonly called next) as well as a reference to the preceding node (commonly called back). The head reference also contains two references, one to the first node in the linked list and one to the last. Use a doubly linked list to implement the deque ADT one more time. Name the class Deque2(), and use the other method names given in Chapter 3.16 in your digital textbook.