

The LinkedList class given in Section 16.1, pages 724 – 727 implements a singly-linked list and a ListIterator interface. You are to make and test the following modifications to this code:

1. Add an instance variable **last** that points to the last Node in the list.
2. Modify the Node class to include a **previous** instance variable.
3. Modify all methods necessary to properly implement the List as a doubly-linked list.
4. Add methods **getLast()**, **removeLast()**, **addLast(...)**.
5. Exercise P16.6, page 752 of your textbook.
6. Exercise P16.7, page 752 of your textbook.

Turn in a printed copy of your source code and sample execution output that shows tests of all added functionality.