7. Linked Lists :: Implementation :: DList Class :: Adding an Element

To see what we need to do to add a new element, let's consider several cases.

1. Adding a new element at index 0 to an empty list.

2. Adding a new element at index 0 (before the head) to a list with one or more elements.

7. Linked Lists :: Implementation :: DList Class :: Adding an Element

3. Adding a new element at index *getSize*() (after the tail) to list with one or more elements (adding an element after the tail to an empty list is equivalent to adding an element at index 0 to an empty list).

4. Adding a new element at index *getSize*() - 1 (before the tail) to a list with two or more elements.

7. Linked Lists :: Implementation :: DList Class :: Adding an Element

5. Adding a new element at $0 < pIndex < getSize()$ - 1 (in the middle of the list) to a nonempty list.