ListIterator: More Practice

**E** it.next();

**E** it.previous();

**void** it.add(E) *//adds obj before the element that will be returned by next.*

**void** it.remove() *//removes the last element that was returned by next.*

Sometimes, next or previous has not been set, which causes run-time errors for remove. Predict the state of each iterator below.

1. Given a ListIterator in this initial state: ^A B C D

|  |  |  |
| --- | --- | --- |
|  | **new state** | **returns** |
| iter.add(″X″); |  |  |
| iter.next(); |  |  |
| iter.remove(); |  |  |
| iter.remove(); |  |  |

1. Given a ListIterator in this initial state: ^B C D

|  |  |  |
| --- | --- | --- |
|  | **new state** | **returns** |
| iter.add(″A″); |  |  |
| iter.next(); |  |  |
| iter.previous(); |  |  |
| iter.remove(); |  |  |
| iter.next(); |  |  |
| iter.add(″Z″); |  |  |
| iter.remove(); |  |  |

1. Given a ListIterator in this initial state: B^C

|  |  |  |
| --- | --- | --- |
|  | **new state** | **returns** |
| iter.previous(); |  |  |
| iter.add(″X″); |  |  |
| iter.next(); |  |  |
| iter.next(); |  |  |
| iter.next(); |  |  |

1. Given a ListIterator in this initial state: ^A B

|  |  |  |
| --- | --- | --- |
|  | **new state** | **returns** |
| iter.remove(); |  |  |