

Difference between Iterator and ListIterator in java

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Here we will discuss the differences between Iterator and ListIterator. Both of these interfaces are used for traversing but still there are few differences in the way they can be used for traversing a collection. I would recommend you to go through the following tutorials to understand these interfaces better before going through the differences.

[Java – Iterator](#)

[Java – ListIterator](#)

Iterator vs ListIterator

1) Iterator is used for traversing `List` and `Set` both.

We can use ListIterator to traverse `List` only, we cannot traverse `Set` using ListIterator.

2) We can traverse in only forward direction using Iterator.

Using ListIterator, we can traverse a List in both the directions (forward and Backward).

3) We cannot obtain indexes while using Iterator

We can obtain indexes at any point of time while traversing a list using ListIterator. The methods `nextIndex()` and `previousIndex()` are used for this purpose.

4) We cannot add element to collection while traversing it using Iterator, it throws `ConcurrentModificationException` when you try to do it.

We can add element at any point of time while traversing a list using ListIterator.

5) We cannot replace the existing element value when using Iterator.

By using set(E e) method of ListIterator we can replace the last element returned by next() or previous() methods.

6) Methods of Iterator:

- hasNext()
- next()
- remove()

Methods of ListIterator:

- add(E e)
- hasNext()
- hasPrevious()
- next()
- nextIndex()
- previous()
- previousIndex()
- remove()
- set(E e)