

<https://www.geeksforgeeks.org/iterators-in-java/>

Research Effort

This website provided a comprehensive overview of iterators, covering their methods, appropriate use cases, and scenarios where they might not be suitable. It detailed both the advantages and disadvantages of using iterators. Additionally, the website included coding examples with corresponding outputs and thorough explanations.

Learning Experience

I learned that iterators are essential tools crucial for navigating and altering elements within collections, unlike basic loops that lack inherent support for modification. They are similar to loops in some respects but offer greater versatility, especially compared to Enumeration, which lacks the ability to remove elements. The activity involved practical coding exercises where I implemented and tested iterators, which grew my understanding of their functionality and practical use.

New Concept Utilized: Iterator Interface Methods

One new concept I utilized was the implementation and practical application of the primary methods of the Iterator interface: `hasNext()` and `next()`.

`hasNext()`: Checks if there are more elements in the collection.

`next()`: Retrieves the next element.

Challenges Encountered

The output layout was not formatted the way I wanted it to look. Initially, all the side effects were written out, separated by commas instead of in a list format.

Observations Gained

-This project highlighted the usefulness of iterators for navigating and modifying data compared to basic loops.

-Improving output formatting to present information highlighted the importance of user-friendly design

Other Relevant Matters

I think this was a great practice opportunity.

Probing Questions for Classmates

1. In what scenarios would you prefer using a ListIterator over a regular Iterator?