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WEB 330 - Enterprise JavaScript II

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Discussion 5.1 – JavaScript Generators

What are JavaScript Generators?

In the simplest terms, JavaScript Generators are special functions in JavaScript that allow you to pause and resume the operation later, making it easier to work with sequences of values.

Why are JavaScript Generators used?

JavaScript Generators are used to make working with sequences of values more straightforward and more convenient. They are beneficial when working with complex data structures, such as large arrays or nested objects, as they allow you to control the iteration flow. Generators are also helpful for implementing asynchronous code, as they can pause execution and wait for external events before resuming. This makes them an essential tool for writing efficient and manageable code.

How are JavaScript Generators used?

JavaScript Generators are used by calling the generator function, which returns a generator object. The "next()" method is then called on this object to execute the code in the generator function until it reaches the next "yield" keyword. The "yield" keyword is used to pause execution and return the specified value. When "next()" is called again, execution resumes where

it left off. This allows you to control the flow of the iteration and work with sequences of values conveniently and efficiently.

What is the difference between a JavaScript Generator and Iterator?

A JavaScript Generator is a particular type of function that can be used to create Iterators, while an Iterator is an object that has a "next()" method and can be used in a "for...of" loop. The main difference between a Generator and an Iterator is that a Generator is a way to create Iterators. In contrast, an Iterator is simply an object that can be used for iteration.

References

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