Array.prototype.with()

Summary: In this tutorial, you will learn how to use the JavaScript Array `with()` method to return a new array with a value at an index changed to a new value.

Introduction to the JavaScript Array with() method

The Array `with()` method returns a new array with an element at a specified index replaced by a new one.

Here's the syntax of the `with()` method:

```
let newArray = array.with(index, value)
```

In this syntax:

- `index` is a zero-based index at which you want to replace the element. `index` can be positive or negative. A negative index counts back from the end of the array.
- `value` is a new value that the method assigns at the given `index`.

The `with()` method returns a *new array* with the element at `index` replaced with `value`.

> Note that the `with()` method does not modify the original `array`.

JavaScript Array with() method examples

Let's take some examples of using the Array `with()` method.

Basic Array with() method example

The following example uses the Array `with()` method to replace the element at the index `2` with the value `20` :

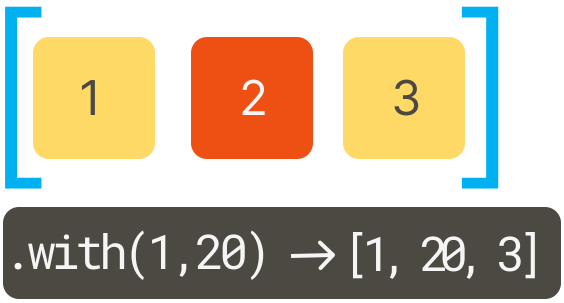
```
const numbers = [1, 2, 3];

const newNumbers = numbers.with(1, 20);

console.log({ numbers });
console.log({ newNumbers });
```

Output:

```
{ numbers: [ 1, 2, 3 ] }
{ newNumbers: [ 1, 20, 3 ] }
```



Using the Array with() method with an array of objects

The following example uses the `with()` method to update the second object in an array and return a new array:

```
const todos = [
  { id: 1, title: 'Learn HTML', completed: true },
  { id: 2, title: 'Learn CSS', completed: false },
  { id: 3, title: 'Learn JavaScript', completed: false },
];

const newTodos = todos.with(1, { ...todos[1], completed: true });
```

```
console.log({ newTodos });
```

Output:

```
{
  newTodos: [
    { id: 1, title: 'Learn HTML', completed: true },
    { id: 2, title: 'Learn CSS', completed: true },
    { id: 3, title: 'Learn JavaScript', completed: false }
  ]
}
```

How it works.

First, define an array of todo objects:

```
const todos = [
  { id: 1, title: 'Learn HTML', completed: true },
  { id: 2, title: 'Learn CSS', completed: false },
  { id: 3, title: 'Learn JavaScript', completed: false },
];
```

Each `todo` object has three properties: `id`, `title`, and `completed`.

Second, update the `completed` property of the second todo object to `true` and return a new array:

```
const newTodos = todos.with(1, { ...todos[1], completed: true });
```

In this syntax:

- `1` indicates that the `with()` will replace the second element in an array.
- `{ ...todos[1], completed: true }` creates a new todo object from the existing one and updates only the completed property to false.

Third, display the `newTodos` to the console:

```
console.log({ newTodos });
```

Summary

- Use the JavaScript Array `with()` method to return a new array with a value at an index changed to a new value.