Mehdi Bouchachi

THE COMPLETE FRONT-END DEVELOPMENT

@Mehdibouchachi

SECTION

JAVASCRIPT REVEIW

LECTURE

WORKING WITH IMMUTABLE ARRAYS

WORKING WITH IMMUTABLE ARRAYS

BEFORE WE START

👉 In JavaScript, Arrays are a convenient way for storing and manipulating data.

👉 However, their **mutability** often leads to unexpected changes and unintended side effects, making debugging a headache.

👉 Fortunately, We have Immutable Arrays to answer this problem

WORKING WITH IMMUTABLE ARRAYS

IMMUTABLE ARRAYS

👉 An immutable array is an array that **never changes after creation**.

👉 Modifying elements doesn't alter the original array, but creates a new one instead.

👉 Immutable arrays ensure **predictable data behavior**, **facilitate easier debugging** by maintaining a clear data history, and enhance performance by **avoiding unnecessary re-renders**.

WORKING WITH IMMUTABLE ARRAYS

ADDING AN ELEMENT

👉 Immutable arrays ensure data integrity by preserving the original array.

👉 A new array is created with the added element.

👉 We use the spread operator (...) to create a new array with the added element.

```
const newMovie = {
  id: 6,
  title: "The Shawshank Redemption",
  publicationDate: "1994-10-14",
  director: "Frank Darabont",
};
const moviesAfterAdd = [...data, newMovie];
```

WORKING WITH IMMUTABLE ARRAYS

DELETING AN ELEMENT

👉 Immutable arrays maintain the original array structure while removing elements.

👉 A new array is created without the deleted element.

👉 We use the filter method to create a new array excluding the deleted element.

```
1  const moviesAfterDelete = moviesAfterAdd.filter((movie) => movie.id !== 2);
```

WORKING WITH IMMUTABLE ARRAYS

EDITING AN ELEMENT

👉 Immutable arrays facilitate editing elements without altering the original array.

👉 A new array is created with the edited element.

👉 We use the map method to create a new array with the edited element.

```
1  const updatedMovies = movies.map((movie) => {
2    return movie.id == 1 ? { ...movie, director: "Rayan" } : movie;
3  });
```

SEE YOU SOON...