

FP In Typescript

Immutable Objects and Operators

TS arrays.ts

```
// Mutable (not functional)
let numbers = [1, 2, 3];
numbers.push(4); // [1, 2, 3, 4]

// Immutable (functional)
let newNumbers = [...numbers, 4]; // [1, 2, 3, 4]
```

TS objects.ts

```
// Mutable (not functional)
let person = { name: "Alice", age: 25 };
person.age = 26; // { name: "Alice", age: 26 }

// Immutable (functional)
let updatedPerson = { ...person, age: 26 }; // { name: "Alice", age: 26 }
```

TS functions.ts

```
// Mutable approach (not functional)
function addToList(list, item) {
  list.push(item);
  return list; // Changes original list
}

// Immutable approach (functional)
function addToListImmutable(list, item) {
  return [...list, item]; // Returns a new list, original list is unchanged
}
```