

Typescript(Javascript) top-up

TS Features

The following features are used in the labs/examples

- Destructuring
- Spread Operator
- Default Arguments

Destructuring

- Assigning the properties of an array or object to variables using a declarative style rather than an imperative/procedural style.

```
// ARRAYS
{
  // without destruction
  const nums = [10, 11, 12]
  let v1 = nums[0]
  let v2 = nums[1]
  let v3 = nums[2]
}
```

```
{
  // without destructuring
  const nums = [10, 11, 12]
  let [v1, v2, v3] = nums
  console.log(`${v1} ${v2} ${v3}`) // 10 11 12
}
```

- See 01_destructuring.ts

The Spread Operator

- JS arrays and objects are iterables.
- The spread operator allows an iterable to expand in places where 0+ arguments are expected.
- Syntax:

...arrayRef
...objectRef

```
// OBJECTS
{
  // without destructuring
  const obj = { alpha: 100, beta: 'enterprise'}
  let alpha = obj.alpha
  let beta = obj.beta
}
```

```
{
  // with destructuring
  const obj = { alpha: 100, beta: 'enterprise'}
  let {alpha, beta} = obj;
  console.log(`${alpha} ${beta}`)
}
```

Default arguments

```
function greet(name: string = 'Guest'): string {  
  | return `Hello, ${name}!`;   
}
```

```
console.log(greet()); // "Hello, Guest!"
```

```
console.log(greet('John')); // "Hello, John!"
```