computed() and linkedSignal()

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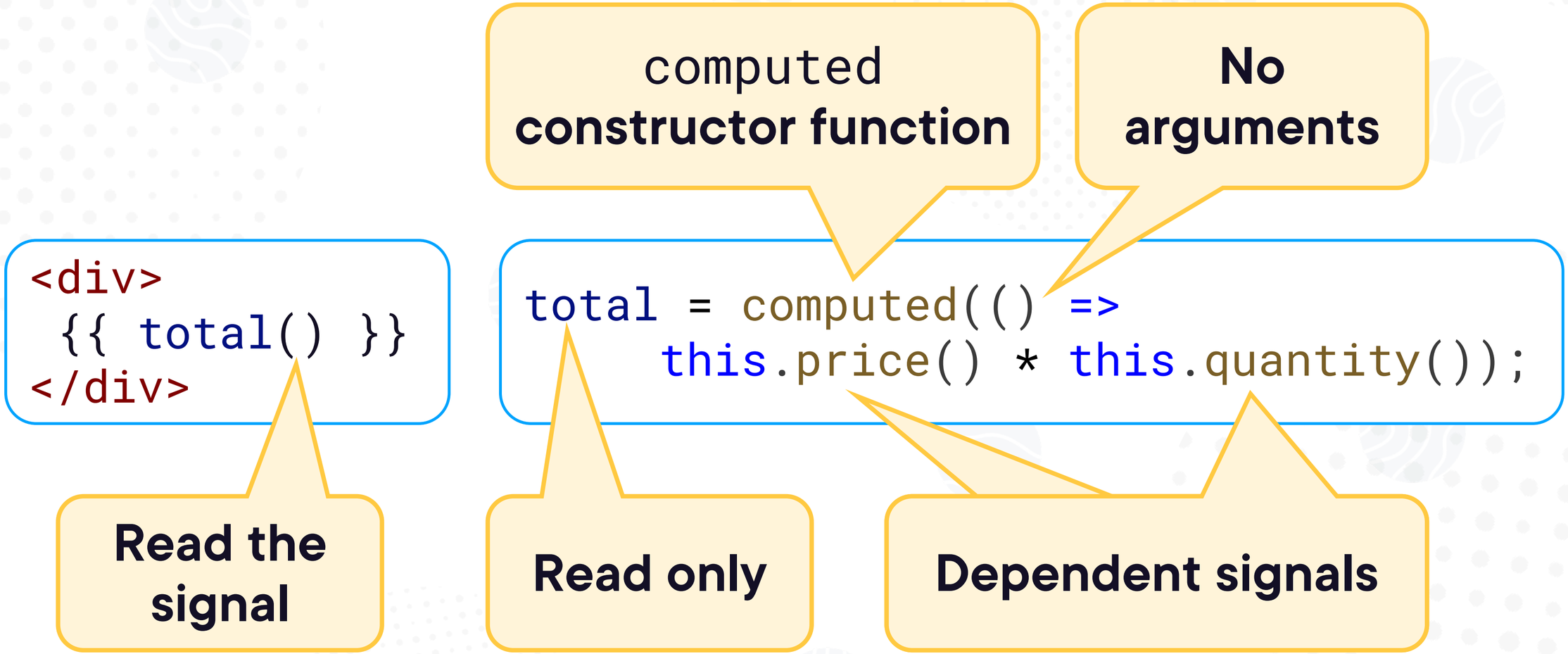
A `computed()` signal performs a computation whenever dependent signals change

`computed()` Signal



A `linkedSignal()`
creates a writeable signal
that automatically resets when
dependent signals change

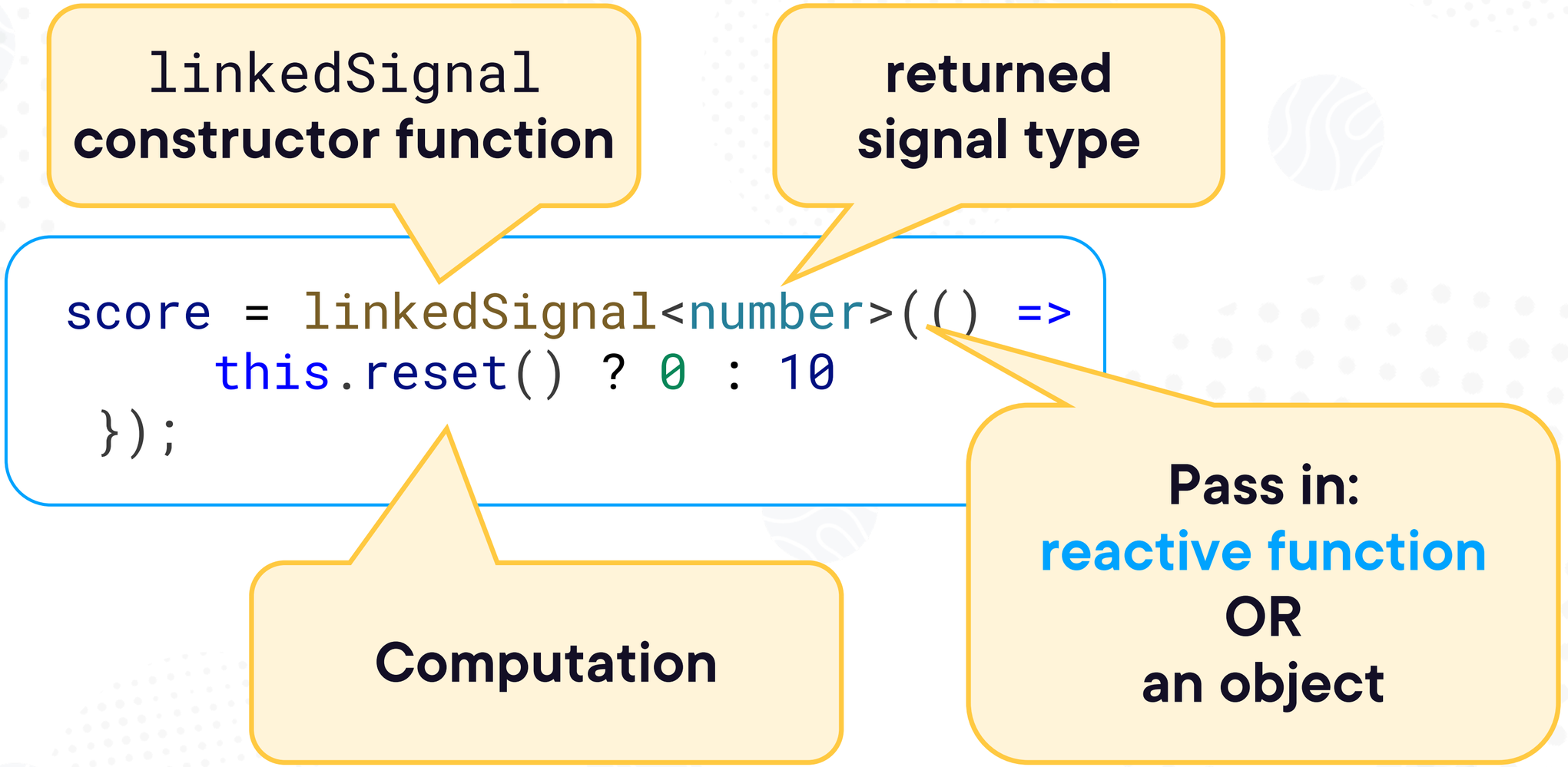
Think of Scoring a Game

Increment scores

Reset
Scores go to 0

Increment scores

linkedSignal()



linkedSignal()

`linkedSignal` **constructor function**

Source type

returned signal type

```
score = linkedSignal<boolean, number>({
  source: this.reset,
  computation: (src, previous) =>
        src ? 0 : previous.value
 });
```

Pass in:
reactive function
OR
an object

`linkedSignal()`

Previous object
source: prior source signal
value: prior `linkedSignal()` value

Dependent signal(s)

Computation

```
score = linkedSignal<boolean, number>({
  source: this.reset,
  computation: (src, previous) =>
        src ? 0 : previous.value
});
```

Value of source signal(s)

Previous object

linkedSignal()

```
score = linkedSignal<boolean, number>({
  source: this.reset,
  computation: (src, previous) =>
        src ? 0 : previous.value
 });
```

Pass Reactive Function or Object to `linkedSignal()`?

```
score = linkedSignal<number>(() =>
     this.reset() ? 0 : 10
 });
```

```
score = linkedSignal<boolean, number>({
  source: this.reset,
  computation: (src, previous) =>
       src ? 0 : previous.value
 });
```

```
quantity = linkedSignal({
  source: this.selectedProduct,
  computation: p => 1
 });
```

Pass a function when:

- Function references all dependent signals

Pass an object when:

- Function requires previous source or value
- Function doesn't reference dependent signals

Which to Use When?

`computed()`	VS.	`linkedSignal()`
When deriving a value from one or more signals		When resetting a signal when one or more signals change
Automatically re-compute when those signals change		To access the previous value of the signal
Result can be read only		Result must be writeable
Examples:		Examples:
Calculations		Reset based on selection
UI changes		Keep selection on data change

GitHub

`https://github.com/DeborahK/angular-signals-ps-course`

Beginning sample application files:

apm-begin

Final (completed) sample application files:

apm-end

File with clickable links to additional information:

MOREINFO.md