

Retrieving Data into a Signal



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Retrieving Data

Products
Leaf Rake
Garden Cart
Hammer
Saw
Video Game Controller

```
{{ products() }}
```

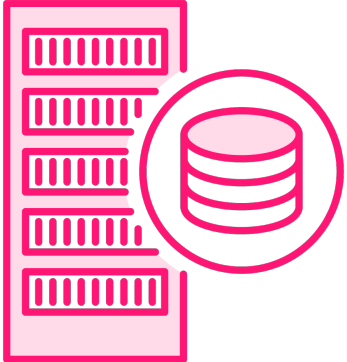
```
products =
```

Product List
Component

Issue http request

```
products = signal([]);
```

Product Service



Backend Server



Retrieving Data (Observable)

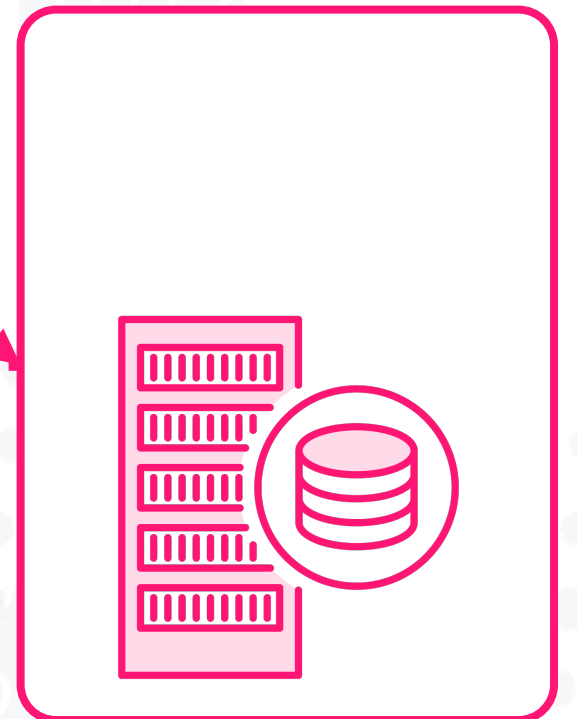
Before
Angular v19

Define http request
Subscribe to issue the request
Returns an observable

Observable emits returned data
Set emitted data into signal
Unsubscribe

```
products = signal([]);
```

Product Service



Backend Server



Retrieving Data (`httpResource()`)

Before
Angular v19

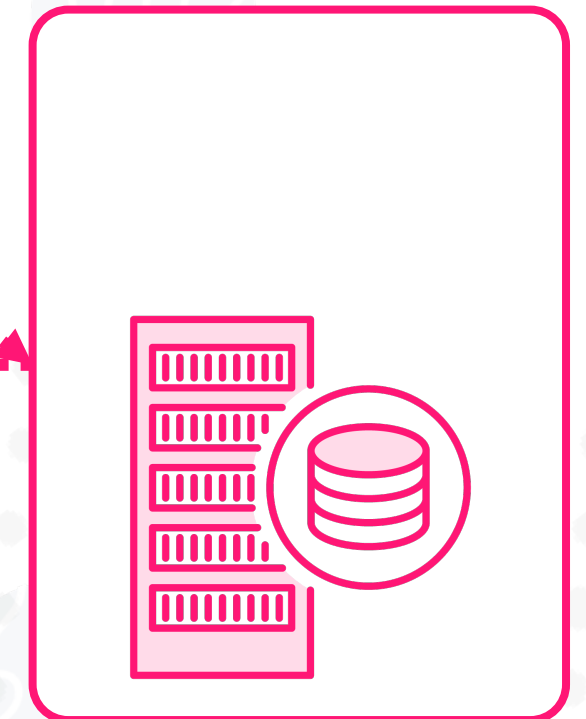
With the
Resource API
Angular v19+

~~Define http request~~
~~Subscribe to issue the request~~
~~Returns an observable~~

~~Observable emits returned data~~
~~Set emitted data into signal~~
~~Unsubscribe~~

`products = signal([]);`

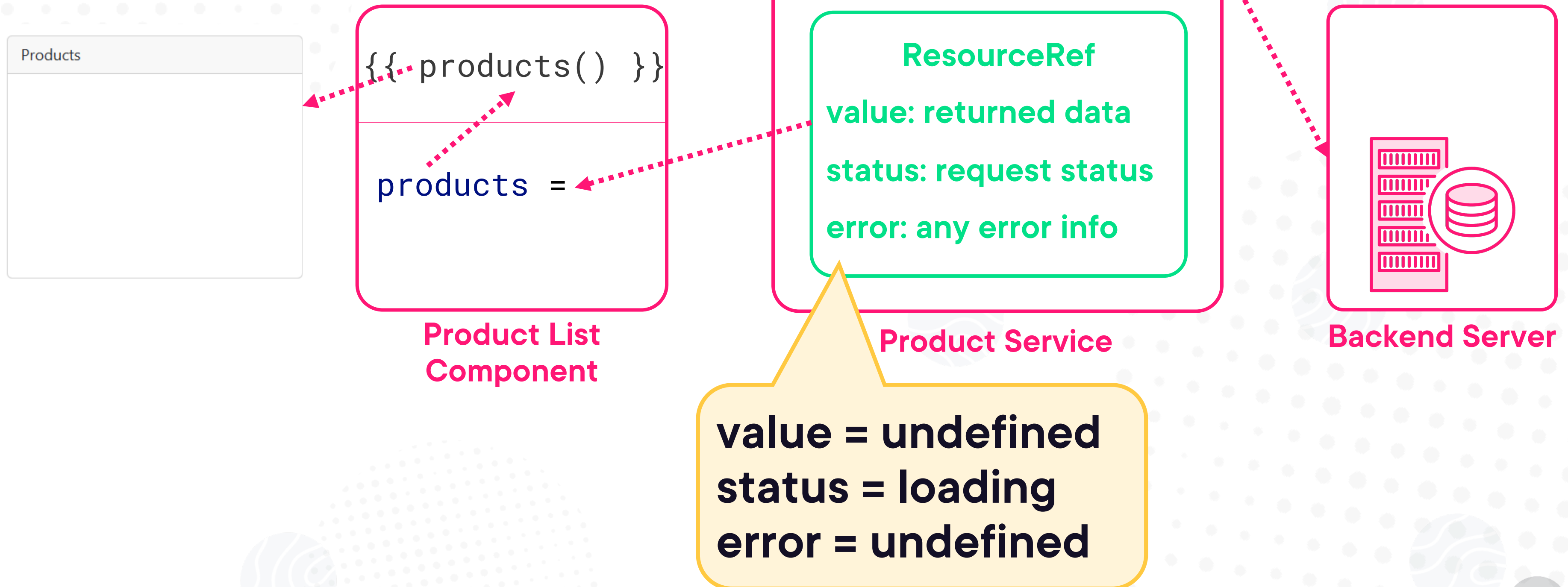
Product Service



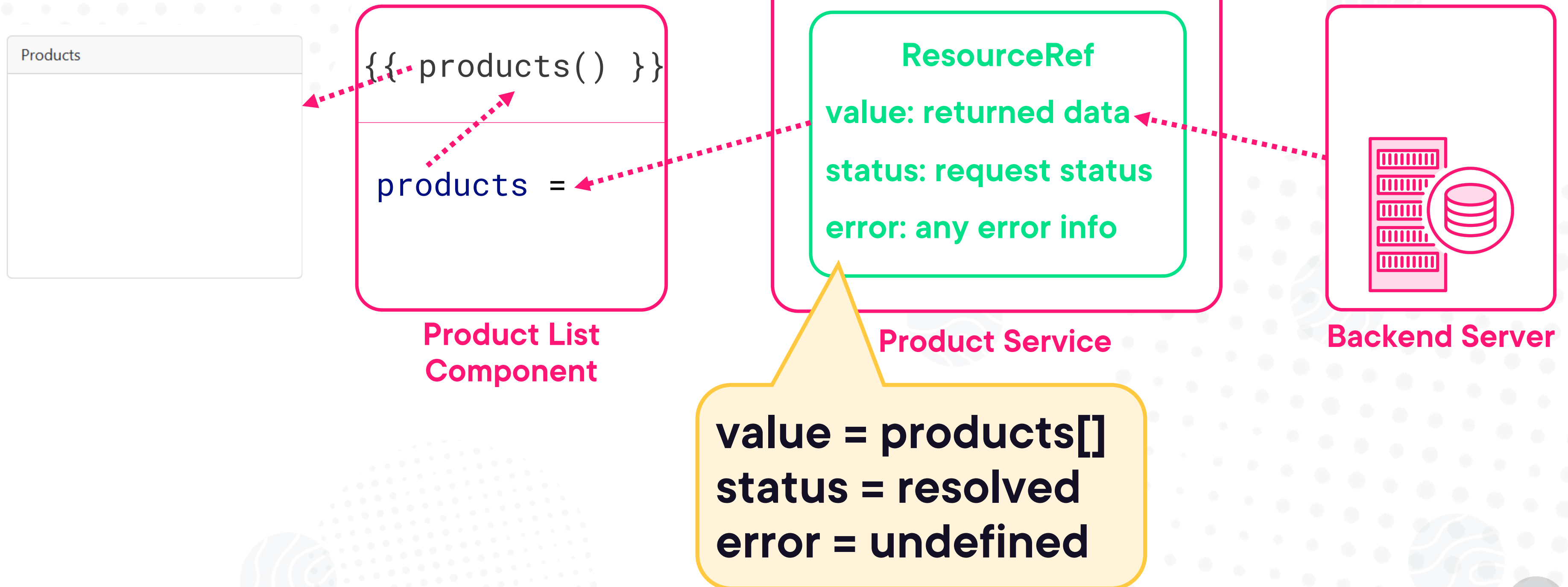
Backend Server



Retrieving Data (`httpResource()`)



Retrieving Data (`httpClient()`)



The Resource API is
experimental
and could change
before it's stable



Providing HttpClient (app.config.ts)

```
import { provideHttpClient } from '@angular/common/http';  
...  
  
export const appConfig: ApplicationConfig = {  
  providers: [  
    ...  
    provideHttpClient()  
  ]  
};
```



**Resource API:
Retrieve data directly
into a signal**



Where Should We Declare Our Resources?

Service

To **share** the retrieved data among several components

To **retain** the data after the component is destroyed

```
productsResource =  
    httpResource<Product[]>(() =>  
        this.productsUrl,  
        {defaultValue: []}  
    );
```

vs.

Component

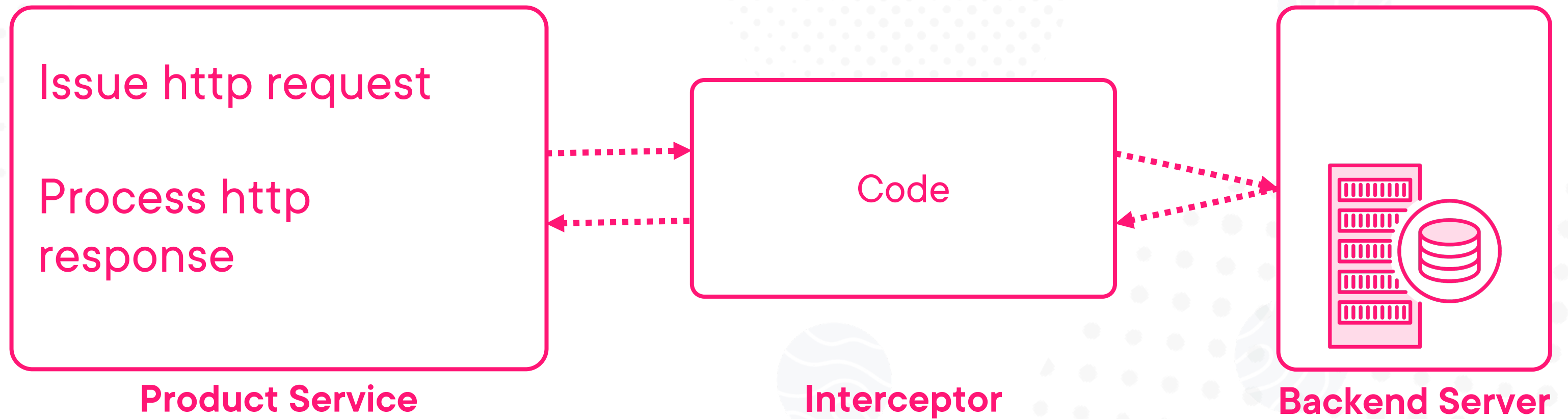
If only **one component** needs the data

To **initialize and destroy** the resource **with** the component

```
ps = inject(ProductService);  
  
productsResource =  
    this.ps.createProducts();
```



Can I Use Interceptors?

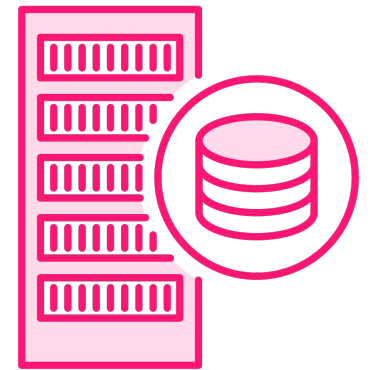


Can We Use the Resource API for Update Operations?

No

Get reviews for product
Oops!
Get reviews for a different
product

Product Service



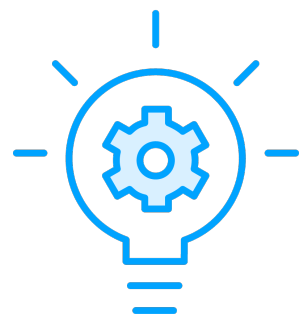
Backend Server



Are There Other Types of Resources?



resource(): Lower level; works with promises



rxResource(): Works with observables



Watch for more to come!



What's with That URL?

```
productsUrl = 'api/products';
```

```
url = 'https://jsonplaceholder.typicode.com/todos';
```

Angular in-memory-web-api

<https://github.com/angular/angular/tree/main/packages/misc/angular-in-memory-web-api>

How do we pass parameters?

**How do we re-get data
when a signal changes?**



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

