Route Parameters

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Product List

Filter by: [   ]

Show Image	Product	Code	Available	Price	5 Star Rating	
	Leaf Rake	GDN-0011	March 19, 2018	$19.95	★★★1	Edit
	Garden Cart	GDN-0023	March 18, 2018	$32.99	★★★★1	Edit
	Hammer	TBX-0048	May 21, 2018	$8.90	★★★★★	Edit
	Saw	TBX-0022	May 15, 2018	$11.55	★★★★	Edit
	Video Game Controller	GMG-0042	October 15, 2018	$35.95	★★★★★	Edit

localhost:4200/products/5

Product Detail: Hammer

Name:	Hammer
Code:	TBX-0048
Description:	Curved claw steel hammer
Availability:	May 21, 2018
Price:	$8.90
5 Star Rating:	★★★★★
Category:	Toolbox
Tags:	tools,hammer,construction

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Module Overview

Required Parameters
- Configure
- Populate
- Read

Optional Parameters
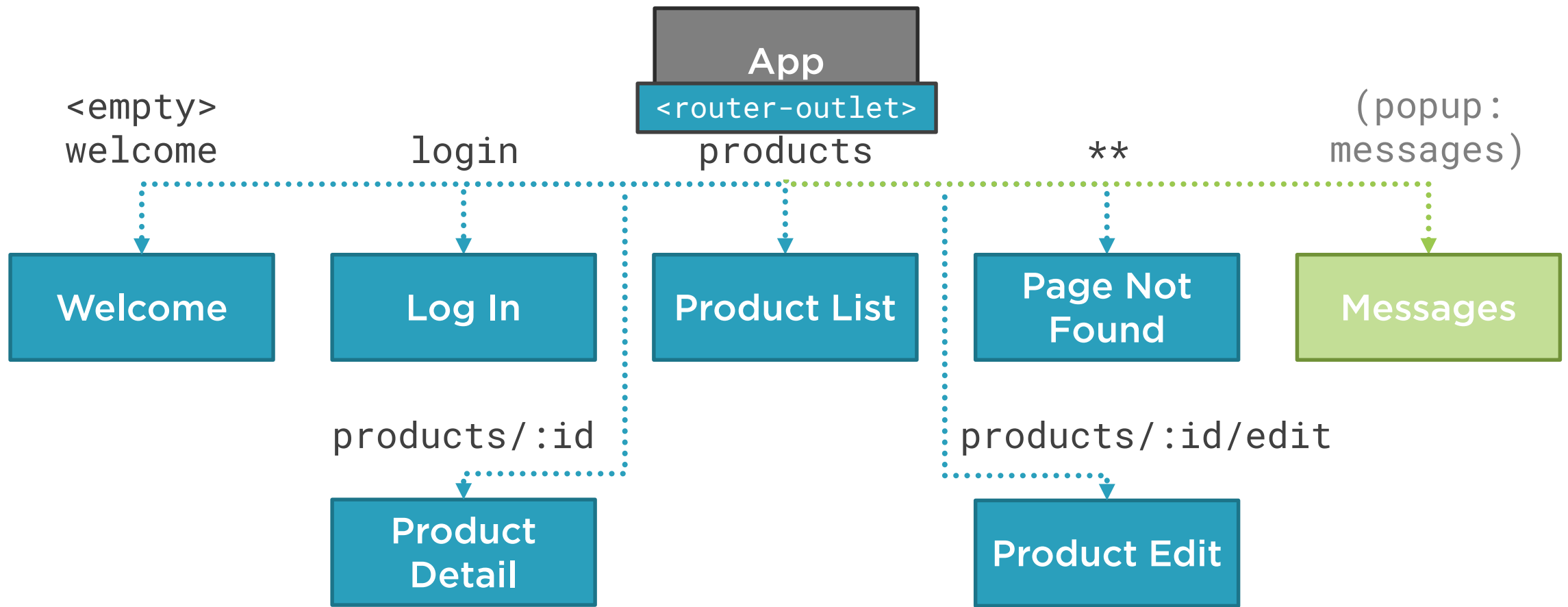
Query Parameters

Configuring Routes with Placeholders

Angular Module

```
[
 { path: 'products', component: ProductListComponent },
 { path: 'products/:id', component: ProductDetailComponent },
 { path: 'products/:id/edit', component: ProductEditComponent }
]
```

Configuring Routes with Placeholders

Angular Module

```
[
 { path: 'orders', component: OrderListComponent },
 { path: 'orders/:id', component: OrderDetailComponent },
 { path: 'orders/:id/items/:itemId', component: OrderItemDetailComponent }
]
```

Product List

Filter by: [   ]

Show Image	Product	Code	Available	Price	5 Star Rating	
	Leaf Rake	GDN-0011	March 19, 2018	$19.95	★★★☆	Edit
	Garden Cart	GDN-0023	March 18, 2018	$32.99	★★★★☆	Edit
	Hammer	TBX-0048	May 21, 2018	$8.90	★★★★★	Edit
	Saw	TBX-0022	May 15, 2018	$11.55	★★★★	Edit
	Video Game Controller	GMG-0042	October 15, 2018	$35.95	★★★★☆	Edit

Populating Route Parameters

```
<a [routerLink]="['/products', product.id]">{{product.productName}}</a>

<a [routerLink]="['/products', product.id, 'edit']">Edit</a>

<a [routerLink]="['/products', 0, 'edit']">Add Product</a>
<a routerLink="/products/0/edit">Add Product</a>
```

```
this.router.navigate(['/products', this.product.id]);
```

Reading Route Parameters

ActivatedRoute Service

| Url segments | Route parameters | Query parameters | Resolver data | ... |

Reading Route Parameters

Component Class

```
constructor(private route: ActivatedRoute) { }
```

Snapshot

```
const id = this.route.snapshot.paramMap.get('id');
```

Observable

```
this.route.paramMap.subscribe(
    params => {
        const id = params.get('id');
    }
);
```

Reading Route Parameters: Snapshot

Component Class

```
import { ActivatedRoute } from '@angular/router';
...
    constructor(private route: ActivatedRoute) {
        console.log(this.route.snapshot.paramMap.get('id'));
    }
```

Angular Module

```
{ path: 'products/:id', component: ProductDetailComponent }
```

Template

```
<a [routerLink]="['/products', product.id]">{{product.productName}}</a>
```

Demo

Reading Route Parameters: Snapshot

Reading Route Parameters: Observable

Component Class

```typescript
import { ActivatedRoute } from '@angular/router';
...
    constructor(private route: ActivatedRoute) {
        this.route.paramMap.subscribe(
            params => {
                console.log(params.get('id'));
            }
        );
    }
```

Angular Module

```typescript
{ path: 'products/:id/edit', component: ProductEditComponent }
```

Template

```html
<a [routerLink]="['/products', product.id, 'edit']">Edit</a>
```

Reading Route Parameters

Snapshot

To read the parameters only once

Simple code

```
const id =
  this.route.snapshot.paramMap.get('id');
```

Observable

To watch for parameter changes

More complex code

```
this.route.paramMap.subscribe(
  params => {
    const id = params.get('id');
  }
);
```

With Required Parameters


```
[routerLink]="['/products',
               productName, productCode, availabilityStart, availabilityEnd]"
```

localhost:4200/products/Controller/gmg/March%201%2C%202018/March%201%2C%202019

```
{ path: 'products/:name/:code/:startDate/:endDate',
  component: ProductListComponent }
```

With Optional Parameters


```
[routerLink]="['/products', {name: productName, code: productCode,
              startDate: availabilityStart, endDate: availabilityEnd}]"
```

```
localhost:4200/products;name=Controller;code=gmg;
startDate=March%201%2C%202018;endDate=March%201%2C%202019
```

```
{ path: 'products', component: ProductListComponent },
```

Reading Optional Route Parameters

Component Class

```typescript
import { ActivatedRoute } from '@angular/router';
...
    constructor(private route: ActivatedRoute) {
        console.log(this.route.snapshot.paramMap.get('name'));
        console.log(this.route.snapshot.paramMap.get('code'));
    }
```

Template

```html
[routerLink]="['/products', {name: productName, code: productCode,
                startDate: availabilityStart, endDate: availabilityEnd}]"
```

localhost:4200/products/5?filterBy=er&showImage=true

Product List

Filter by: [er]

Filtered by: er

[Hide Image]

	Product	Code	Available	Price	5 Star Rating	
🔨	Hammer	TBX-0048	May 21, 2018	$8.90	★★★★★	[Edit]
🎮	Video Game Controller	GMG-0042	October 15, 2018	$35.95	★★★★½	[Edit]

Product Detail: Hammer

Name:	Hammer
Code:	TBX-0048
Description:	Curved claw steel hammer
Availability:	May 21, 2018
Price:	$8.90
5 Star Rating:	★★★★★
Category:	Toolbox
Tags:	tools,hammer,construction

[❮ Back] [Edit]

localhost:4200/products?filterBy=er&showImage=true

Defining Query Parameters

```
<a [routerLink] = "['/products', product.id]"
   [queryParams] = "{ filterBy: 'er', showImage: true }">
   {{product.productName}}
</a>
```

```
this.router.navigate(['/products'],
    {
        queryParams: { filterBy: 'er', showImage: true }
    }
);
```

```
{ path: 'products', component: ProductListComponent }
```

Retaining Query Parameters

```
<a [routerLink] = "['/products']"
    queryParamsHandling = "preserve">
    Back
</a>
```

```
this.router.navigate(['/products'],
        { queryParamsHandling: 'preserve' }
);
```

Reading Query Parameters

ActivatedRoute Service

| Url segments | Route parameters | Query parameters | Resolver data | ... |

Reading Query Parameters

Component Class

```typescript
import { ActivatedRoute } from '@angular/router';

    constructor(private route: ActivatedRoute) {
        console.log(this.route.snapshot.queryParamMap.get('filterBy'));
        console.log(this.route.snapshot.queryParamMap.get('showImage'));
    }
```

Template

```html
<a [routerLink] = "['/products', product.id]"
    [queryParams] = "{ filterBy: listFilter, showImage: showImage }">
    {{product.productName}}
</a>
```

Route Parameters Checklist: Required Parameters

Pass needed data on a route

Example:

- Detail component requires an id

Required Parameters

Configure

```
{ path: 'products/:id', component: ProductDetailComponent }
```

Populate

```
<a [routerLink]="['/products', product.id]">...</a>
```

```
this.router.navigate(['/products', this.product.id]);
```

Read

```
this.route.snapshot.paramMap.get('id');
```
Or Observable

Route Parameters Checklist: Optional Parameters

Pass optional or complex information to a route

Example:

- Search component passes search criteria to the List component to filter the data

Optional Parameters

Not Configured

```
{ path: 'products', component: ProductListComponent }
```

Populate

```
<a [routerLink]="['/products',
                  {start: startDate, end: endDate}]">...</a>
```

```
this.router.navigate(['/products',
                      {start: startDate, end: endDate}]);
```

Read

```
this.route.snapshot.paramMap.get('start');
```

Or Observable

Route Parameters Checklist: Query Parameters

Pass optional or complex information to a route that is optionally retained across routes

Example:

- List component passes its current user selections to the Detail component which passes them back

Query Parameters

Not Configured

```
{ path: 'products', component: ProductListComponent }
```

Populate

```html
<a [routerLink]="['/products']"
   [queryParams]="{filterBy: 'x', showImage: true}">...</a>
```

```typescript
this.router.navigate(['/products', {
            queryParams: { filterBy: 'x', showImage: true }
}]);
```

Read

```typescript
this.route.snapshot.queryParamMap.get('filterBy');
```
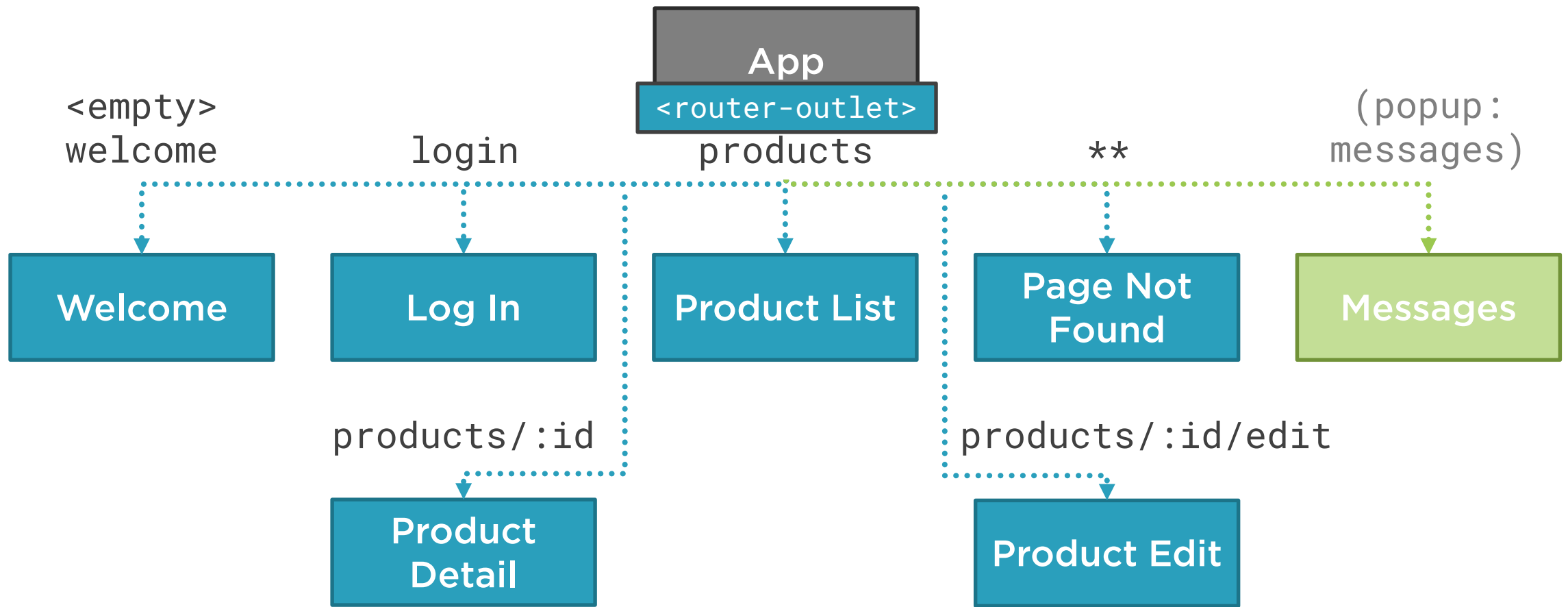
Or Observable

Summary

Required Parameters
- Configure
- Populate
- Read

Optional Parameters

Query Parameters

App
<router-outlet>

<empty>
welcome   login   products   **   (popup: messages)

Welcome   Log In   Product List   Page Not Found   Messages

products/:id   products/:id/edit

Product Detail   Product Edit

·········· Primary Routes
·········· Secondary Routes
·········· Child Routes