

Route Parameters



Deborah Kurata

CONSULTANT | SPEAKER | AUTHOR | MVP | GDE


@deborahkurata | blogs.msmvps.com/deborahk/





| Product List | | | | | | |
|---------------------------------|-----------------------|----------|------------------|---------|---------------|------|
| Filter by: <input type="text"/> | | | | | | |
| Show Image | Product | Code | Available | Price | 5 Star Rating | |
| | Leaf Rake | gdn-0011 | March 19, 2016 | \$19.95 | ★★★★ | Edit |
| | Garden Cart | gdn-0023 | March 18, 2016 | \$32.99 | ★★★★★ | Edit |
| | Hammer | tbx-0048 | May 21, 2016 | \$8.90 | ★★★★★ | Edit |
| | Saw | tbx-0022 | May 15, 2016 | \$11.55 | ★★★★★ | Edit |
| | Video Game Controller | gmg-0042 | October 15, 2015 | \$35.95 | ★★★★★ | Edit |

<http://localhost:3000/products/5>

| Product Detail: Hammer | |
|--|---------------------------|
| Name: | Hammer |
| Code: | TBX-0048 |
| Description: | Curved claw steel hammer |
| Availability: | May 21, 2016 |
| Price: | \$8.90 |
| 5 Star Rating: | ★★★★★ |
| Category: | Toolbox |
| Tags: | tools,hammer,construction |
|  | |
| < Back Edit | |



Module Overview



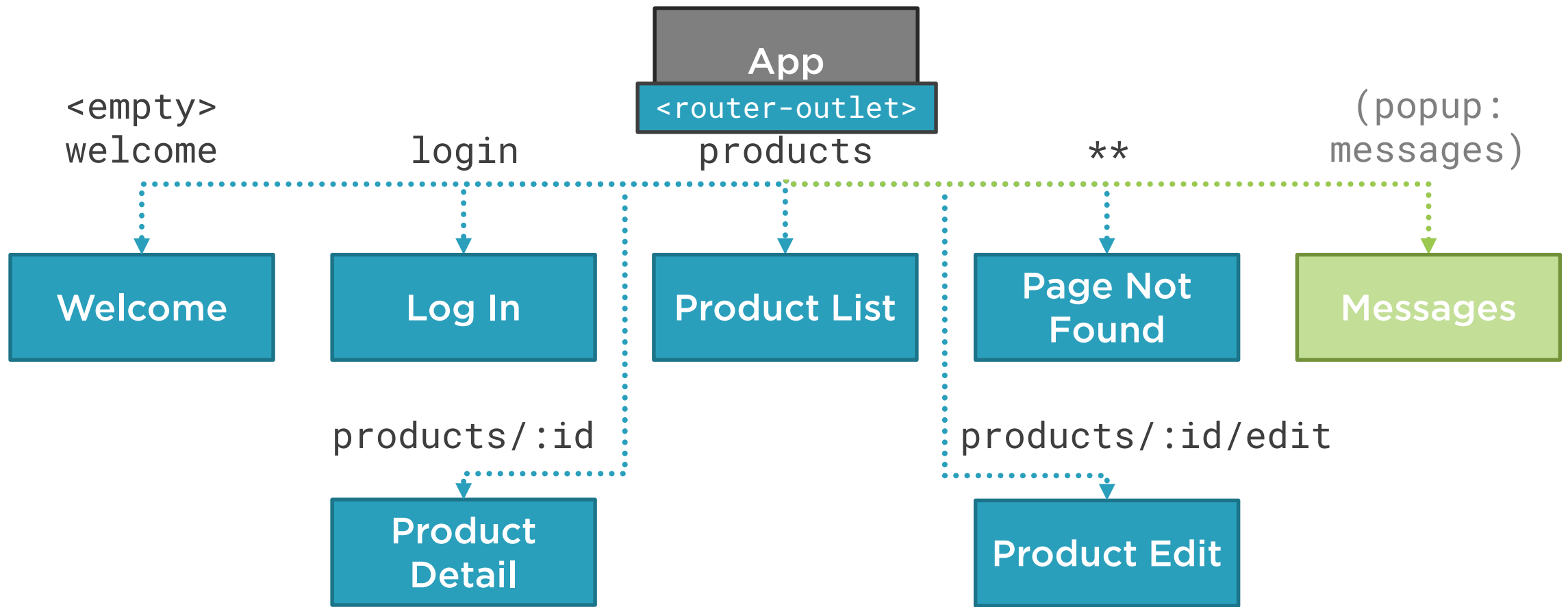
Required Parameters

- Configure
- Populate
- Read

Optional Parameters

Query Parameters





- Primary Routes
- Secondary Routes
- Child Routes



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, 2016 | \$19.95 | ★ ★ ★ | Edit |
| Garden Cart | gdn-0023 | March 18, 2016 | \$32.99 | ★ ★ ★ ★ | Edit |
| Hammer | tbx-0048 | May 21, 2016 | \$8.90 | ★ ★ ★ ★ ★ | Edit |
| Saw | tbx-0022 | May 15, 2016 | \$11.55 | ★ ★ ★ ★ | Edit |
| Video Game Controller | gmg-0042 | October 15, 2015 | \$35.95 | ★ ★ ★ ★ ★ | Edit |



Populating Route Parameters

Template

```
<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>
```

Component Class

```
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

```
let id = this.route.snapshot.params['id'];
```

Observable

```
this.route.params.subscribe(  
  params => {  
    let id = params['id'];  
  }  
);
```



Reading Route Parameters: Snapshot

Component Class

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

Angular Module

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

Template

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



Reading Route Parameters: Observable

Component Class

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

Angular Module

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

Template

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



Reading Route Parameters

Snapshot

To read the parameters only once

Simple code

```
let id =  
  this.route.snapshot.params[ 'id' ];
```

Observable

To watch for parameter changes

More complex code

```
this.route.params.subscribe(  
  params => {  
    let id = params[ 'id' ];  
  }  
);
```



Reading Route Parameters (v4+)

Component Class

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

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



With Required Parameters

Product Search


Product Name

Product Code

Availability Date Range

Start

End



Product List

Filter by:

| Product | Code | Available | Price | 5 Star Rating | |
|-----------------------|----------|------------------|---------|---------------|-------------------------------------|
| Video Game Controller | gmg-0042 | October 15, 2015 | \$35.95 | ★★★★★ | <input type="button" value="Edit"/> |

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

http://localhost:3000/products/Controller/gmg/March%201%2C%202015/March%201%2C%202017

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



With Optional Parameters

Product Search


Product Name

Product Code

Availability Date Range

Start

End



Product List

Filter by:

| Product | Code | Available | Price | 5 Star Rating | |
|-----------------------|----------|------------------|---------|---------------|-------------------------------------|
| Video Game Controller | gmg-0042 | October 15, 2015 | \$35.95 | ★★★★★ | <input type="button" value="Edit"/> |

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

```
http://localhost:3000/products;name=Controller;code=gmg;startDate=March%201%2C%202015;endDate=March%201%2C%202017
```

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



Reading Optional Route Parameters

Component Class

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

Template

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





`http://localhost:3000/products/5?filterBy=er&showImage=true`

Product List

Filter by:

Filtered by: er

[Hide Image](#)

| | Product | Code | Available | Price | 5 Star Rating | |
|---|---------------------------------------|----------|------------------|---------|---------------|----------------------|
|  | Hammer | tbx-0048 | May 21, 2016 | \$8.90 | ★★★★★ | Edit |
|  | Video Game Controller | gmg-0042 | October 15, 2015 | \$35.95 | ★★★★★ | Edit |

Product Detail: Hammer

Name: Hammer

Code: TBX-0048

Description: Curved claw steel hammer


Availability: May 21, 2016

Price: \$8.90

5 Star Rating: ★★★★★

Category: Toolbox

Tags: tools, hammer, construction



[< Back](#) [Edit](#)

`http://localhost:3000/products?filterBy=er&showImage=true`



Defining Query Parameters

Template

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

Component Class

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

Angular Module

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



Retaining Query Parameters

Template

```
<a [routerLink] = [" /products"]  
  [preserveQueryParams] = "true">  
  Back  
</a>
```

Component Class

```
this.router.navigate([" /products"],  
  { preserveQueryParams: true }  
);
```



Retaining Query Parameters (v4+)

Template

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

Component Class

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



Reading Query Parameters

ActivatedRoute Service

Url
segments

Route
parameters

Query
parameters

Resolver
data

...



Reading Query Parameters

Component Class

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

constructor(private route: ActivatedRoute) {
  console.log(this.route.snapshot.queryParams['filterBy']);
  console.log(this.route.snapshot.queryParams['showImage']);
}
```

Template

```
<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.params['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.params['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

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

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

Read

```
this.route.snapshot.queryParams['filterBy'];
```

Or Observable



Summary

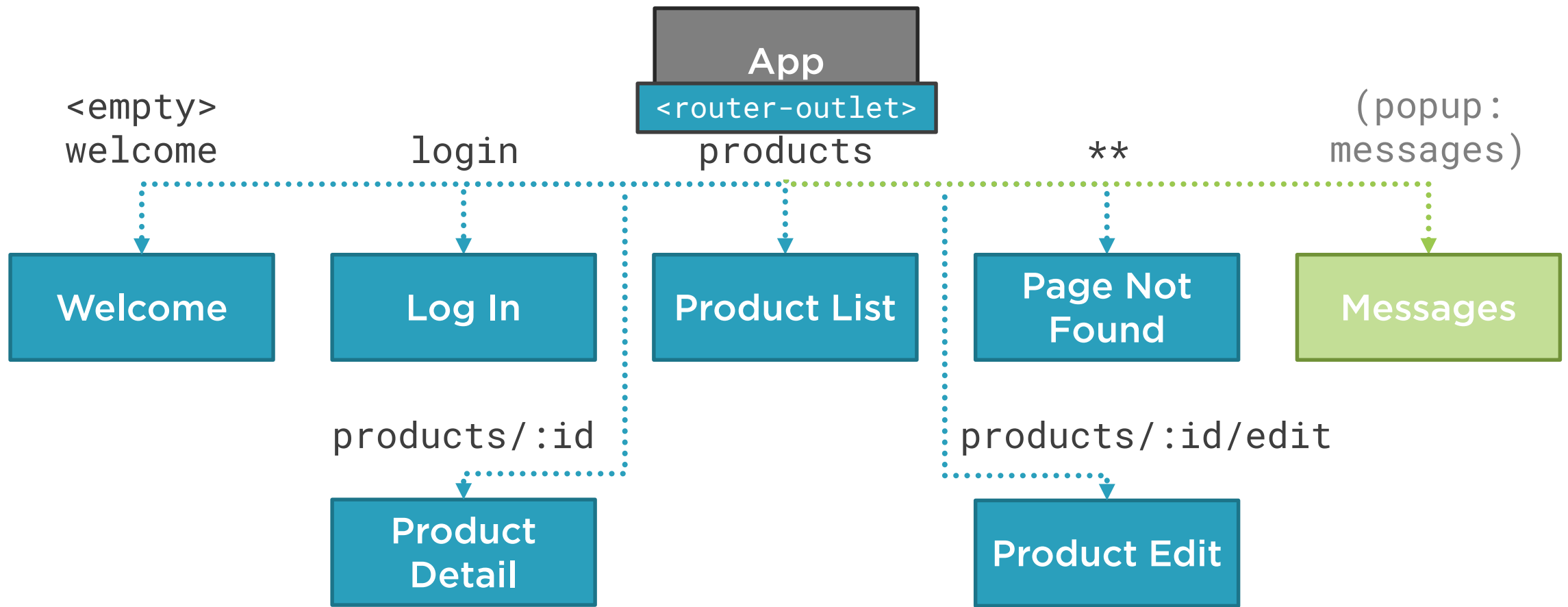


Required Parameters

- Configure
- Populate
- Read

Optional Parameters

Query Parameters



- Primary Routes
- Secondary Routes
- Child Routes

