

N Things You Didn't Know About the Angular Router

Deborah Kurata
Developer | Author | MVP | GDE

Level: Intermediate



Code Again for
the First Time!

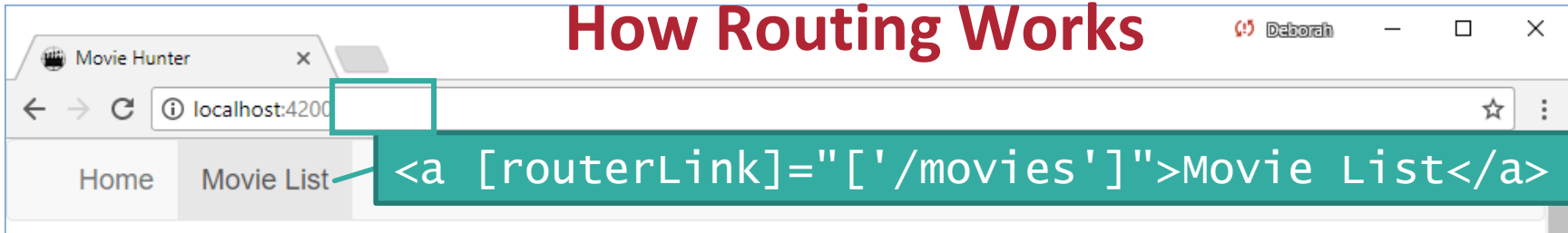


Deborah Kurata

- Developer
- Angular v2 Documentation Team Member (angular.io)
- [Pluralsight](#) Author
 - Angular Getting Started
 - Angular Reactive Forms
 - Angular Routing
 - Angular Component Communication
 - C# Best Practices
- Microsoft Most Valuable Professional ([MVP](#))
- Google Developer Expert ([GDE](#))
- [@deborahkurata](#)

[https://github.com/DeborahK/
MovieHunter-routing](https://github.com/DeborahK/MovieHunter-routing)

How Routing Works



```
{ path: 'movies', component: MovieListComponent }
```

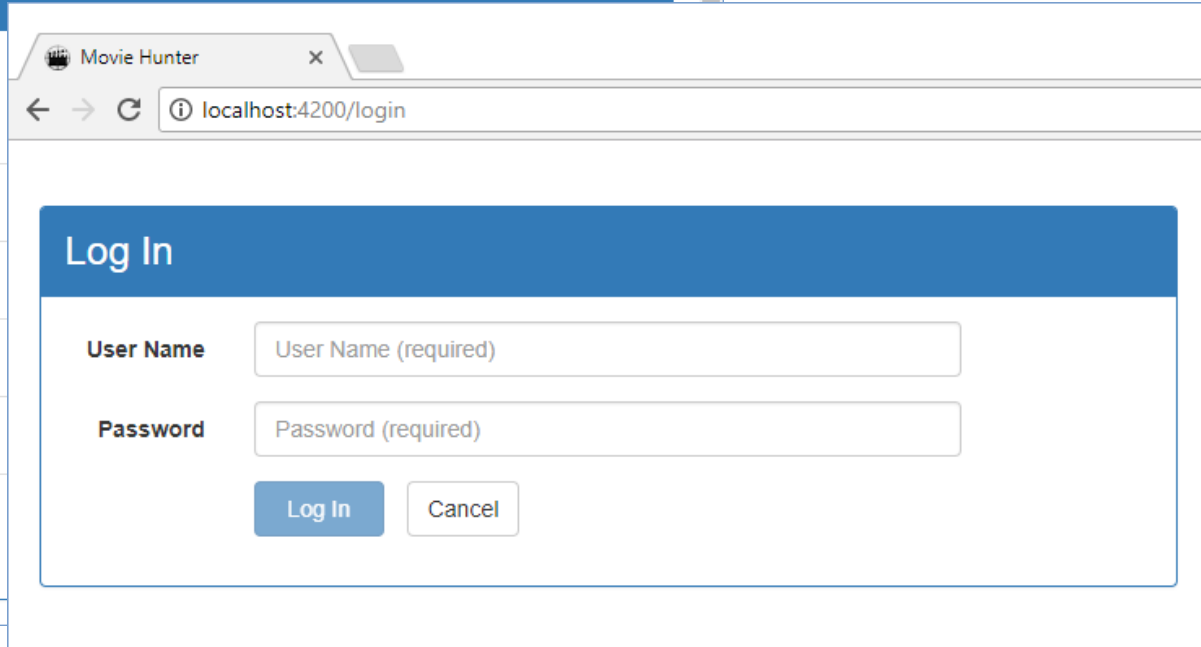
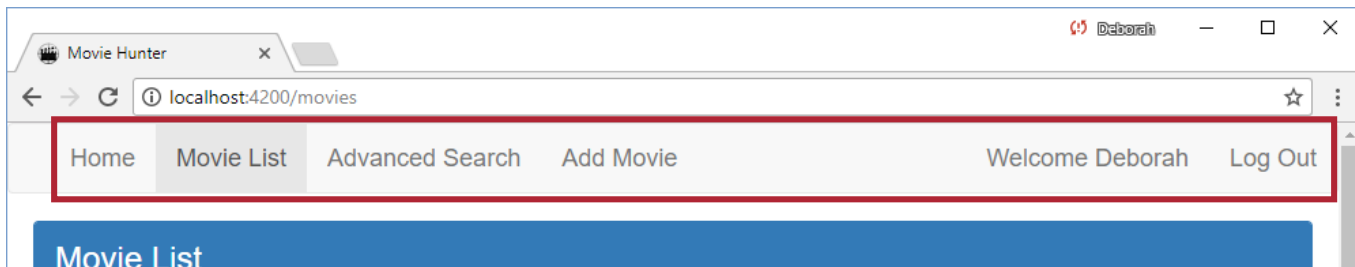
```
<router-outlet></router-outlet>
```

movie-list.component.ts

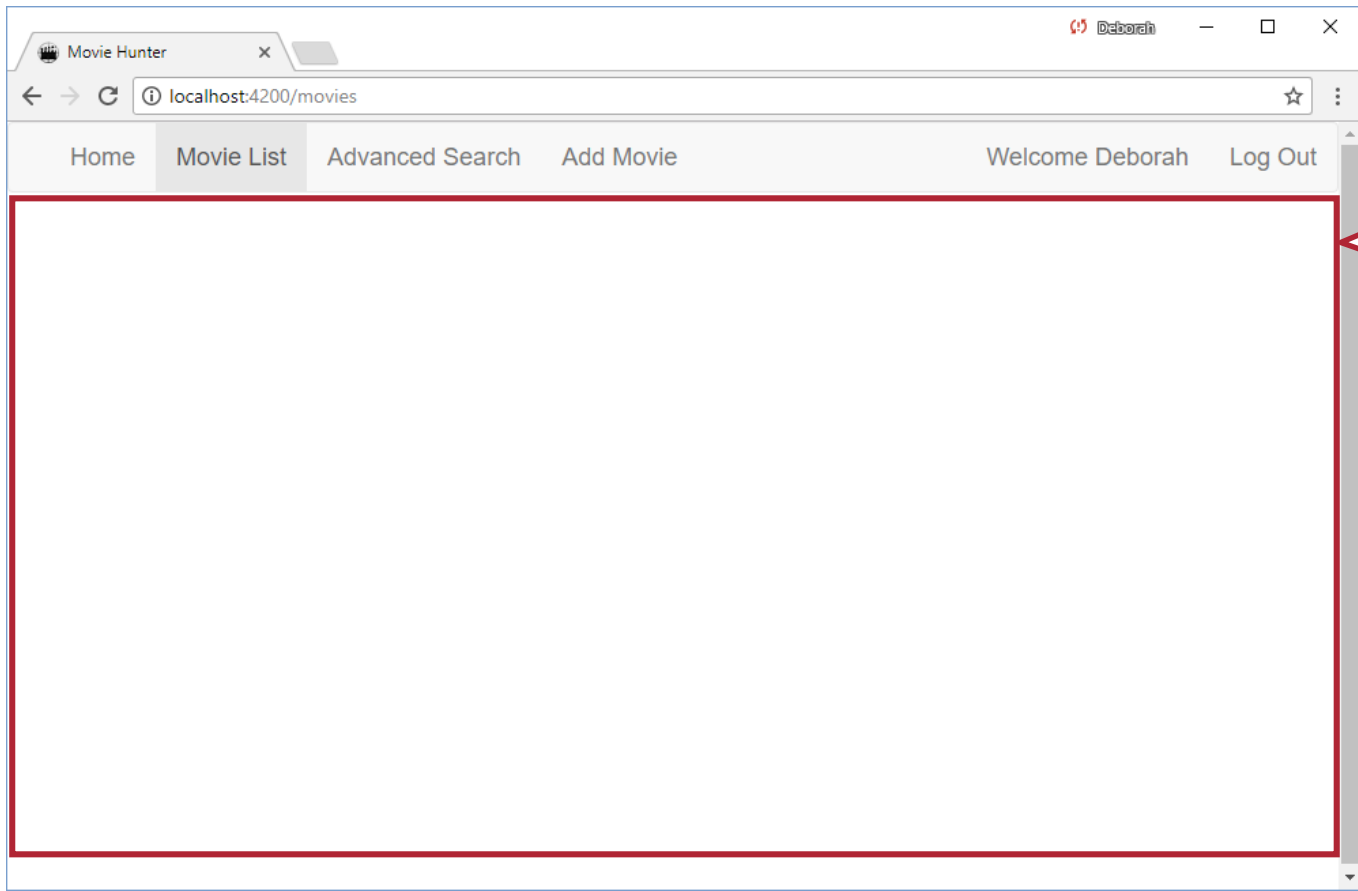
```
import { Component } from '@angular/core';

@Component({
  templateUrl: 'movie-list.component.html'
})
export class MovieListComponent { }
```

**To Menu
or Not To Menu**



```
<div class="container">
  <nav class="navbar navbar-light">
    <a class="navbar-brand">{{pageTitle}}</a>
    <ul class="navbar-nav">
      <li><a [routerLink]="['/welcome']">Home</a></li>
      <li><a [routerLink]="['/movies']">Movie List</a></li>
    </ul>
  </nav>
  <router-outlet></router-outlet>
</div>
```

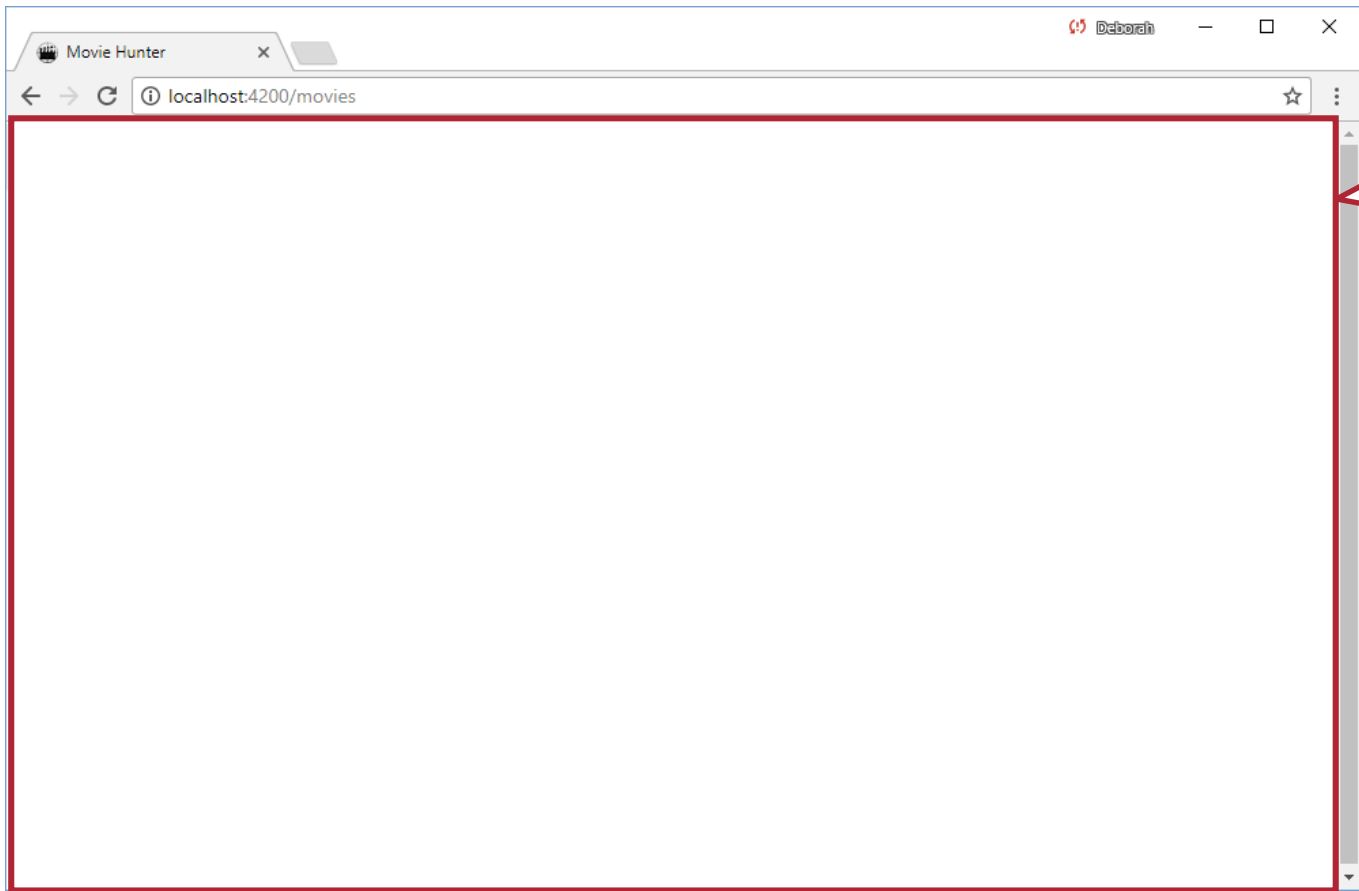


app
router outlet


```
<div class="container">
  <nav class="navbar navbar-light" *ngIf="displayMenu">
    <a class="navbar-brand">{{pageTitle}}</a>
    <ul class="navbar-nav">
      <li><a [routerLink]="['/welcome']">Home</a></li>
      <li><a [routerLink]="['/movies']">Movie List</a></li>
    </ul>
  </nav>
  <router-outlet></router-outlet>
</div>
```

app.component.html

```
<router-outlet></router-outlet>
```



app
router outlet

Movie Hunter x

localhost:4200/movies

Log In

User Name

Password

app
router outlet

```
<div class="container">
  <nav class="navbar navbar-light">
    <a class="navbar-brand">{{pageTitle}}</a>
    <ul class="navbar-nav">
      <li><a [routerLink]="['/welcome']">Home</a></li>
      <li><a [routerLink]="['/movies']">Movie List</a></li>
    </ul>
  </nav>
  <router-outlet></router-outlet>
</div>
```

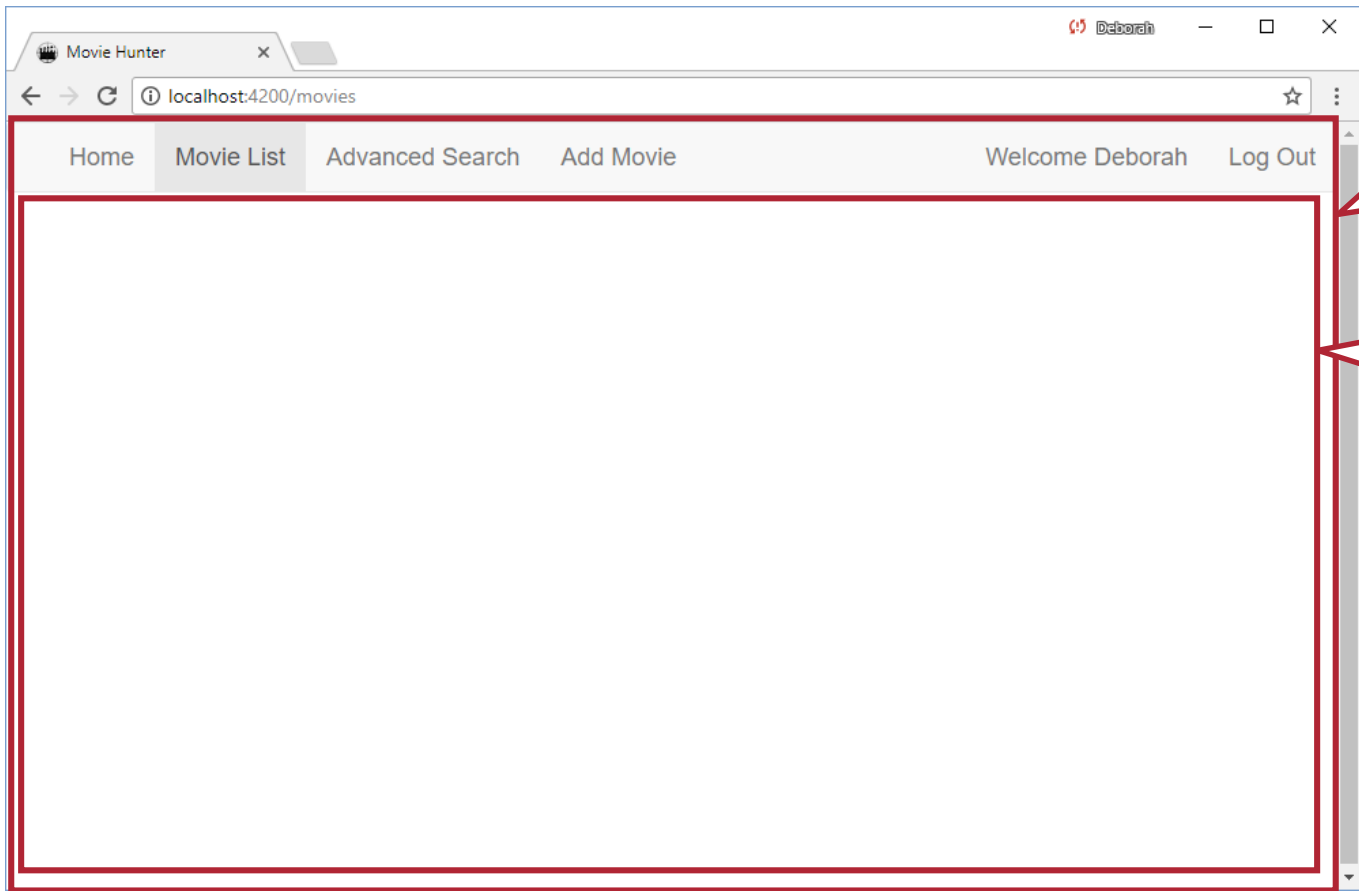
shell.component.html

```
<mh-menu></mh-menu>
```

```
<div class='container'>
```

```
  <router-outlet></router-outlet>
```

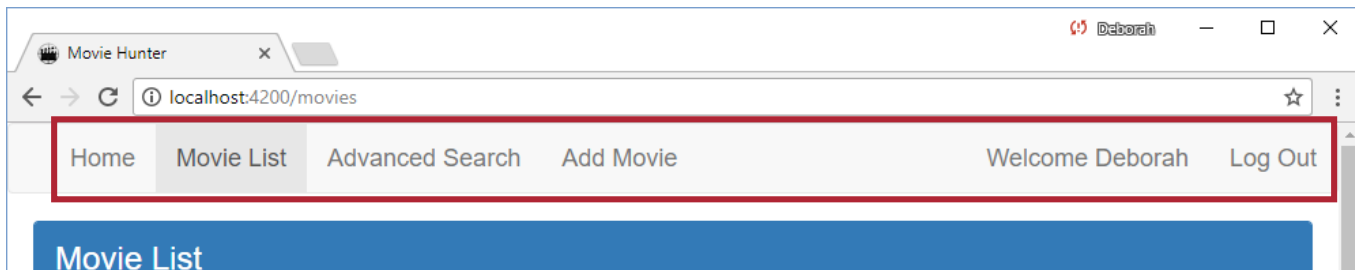
```
</div>
```



app
router outlet

shell
router outlet

```
RouterModule.forRoot([
  {
    path: '',
    component: ShellComponent,
    children: [
      { path: 'welcome', component: WelcomeComponent },
      { path: 'movies', component: MovieListComponent },
      { path: '', redirectTo: 'welcome', pathMatch: 'full' }
    ]
  },
  { path: 'login', component: LoginComponent },
  { path: '**', component: PageNotFoundComponent }
])
```

Filter by:

Show Poster

Title

Director

The Lord of the Rings: The Fellowship of the Ring

Peter Jackson

The Lord of the Rings: The Two Towers

Peter Jackson

The Lord of the Rings: The Return of the King

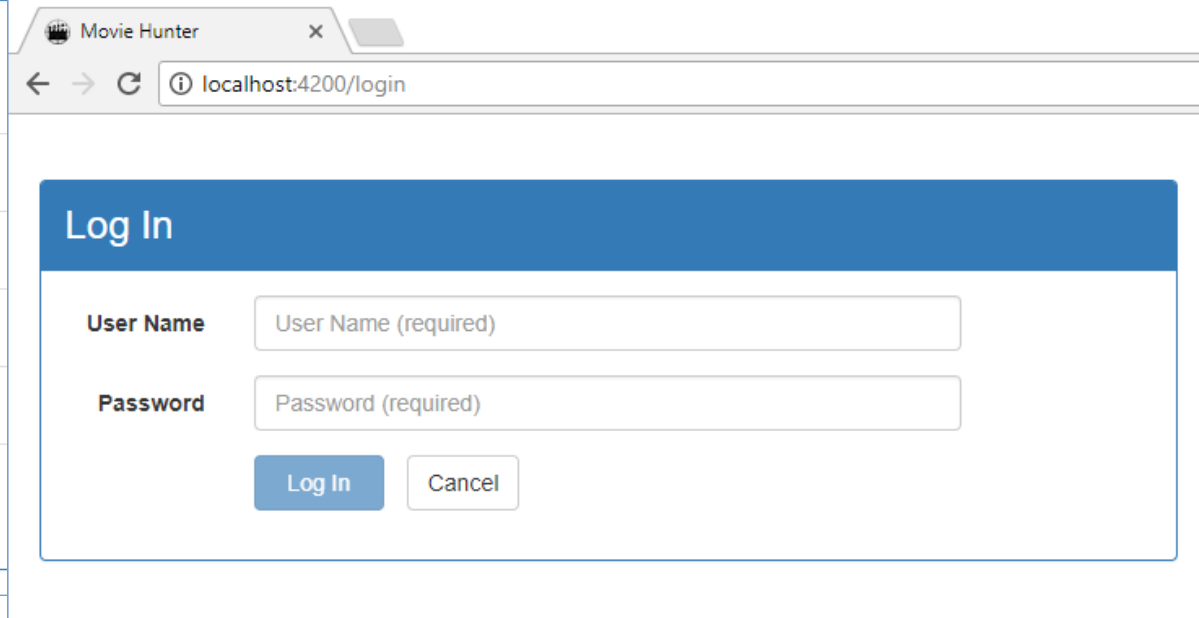
Peter Jackson

The Point

Fred Wolf

Pixels

Chris Columbus



**Which Menu Option
was Selected?**

Movie Hunter

localhost:4200/movies

HomeMovie ListAdvanced SearchAdd Movie

Welcome DeborahLog Out

Movie List

Filter by:

Show Poster

Title	Director	Release Date	MPAA Rating	DVD Price	5 Star Rating	Audience Approval	
The Lord of the Rings: The Fellowship of the Ring	Peter Jackson	Dec 19, 2001	PG 13	\$12.95	★★★★★	97%	Edit
The Lord of the Rings: The Two Towers	Peter Jackson	Dec 18, 2002	PG 13	\$14.95	★★★★★	94%	Edit
The Lord of the Rings: The Return of the King	Peter Jackson	Dec 17, 2003	PG 13	\$15.95	★★★★★	99%	Edit
The Point	Fred Wolf	Feb 2, 1971	NR	\$9.95	★★★★★	93%	Edit
Pixels	Chris Columbus	Jul 24, 2015	PG 13	\$5.59	★★★	17%	Edit

```
<nav class="navbar navbar-?
  <a class="navbar-brand">
  <ul class="navbar-nav">
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/welcome']">Home</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/movies']">Movie List</a>
    </li>
  </ul>
</nav>
```

CSS Style class

```
<nav class="navbar navbar-light">
  <a class="navbar-brand">{{pageTitle}}</a>
  <ul class="navbar-nav">
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/welcome']">Home</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/movies']">Movie List</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/movies/search']">Advanced Search</a>
    </li>
  </ul>
</nav>
```

Advanced Search

Movie Title

Director

Min Star Rating (1-5)

Max Star Rating (1-5)

Description

Search

menu.component.html

```
<nav class="navbar navbar-light">
  <a class="navbar-brand">{{pageTitle}}</a>
  <ul class="navbar-nav">
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/welcome']">Home</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/movies']">Movie List</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/movies/search']">Advanced Search</a>
    </li>
  </ul>
</nav>
```

```
<nav class="navbar navbar-light">
  <a class="navbar-brand">{{pageTitle}}</a>
  <ul class="navbar-nav">
    <li>
      <a routerLinkActive="active"
        [routerLink]="['/welcome']">Home</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLinkActiveOptions]="{ exact: true }"
        [routerLink]="['/movies']">Movie List</a>
    </li>
    <li>
      <a routerLinkActive="active"
        [routerLinkActiveOptions]="{ exact: true }"
        [routerLink]="['/movies/search']">Advanced Search</a>
    </li>
  </ul>
</nav>
```


Movie Hunter

localhost:4200/movies

HomeMovie ListAdvanced SearchAdd Movie

Welcome DeborahLog Out

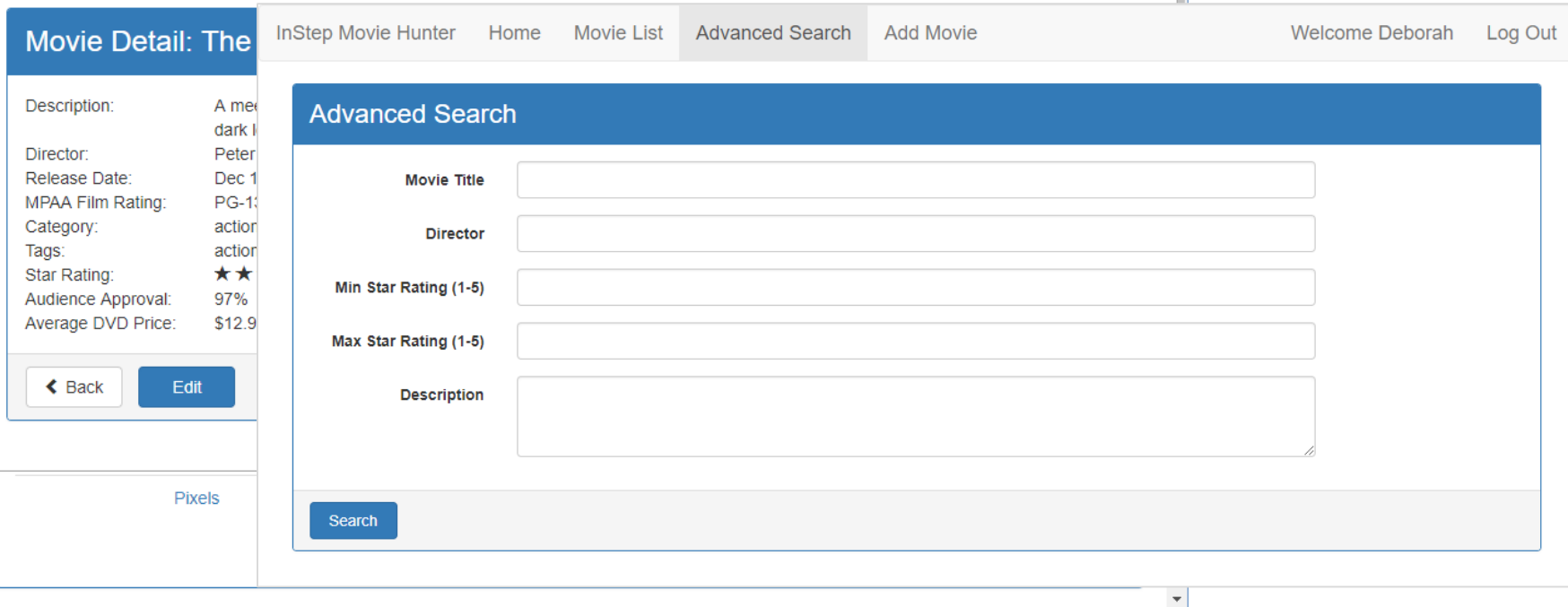
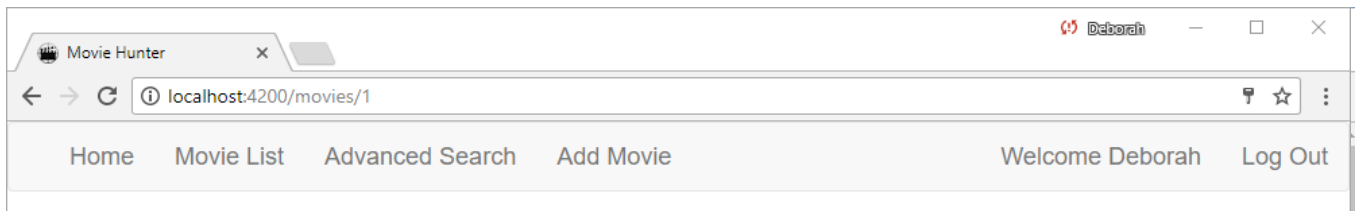
Movie List

Filter by:

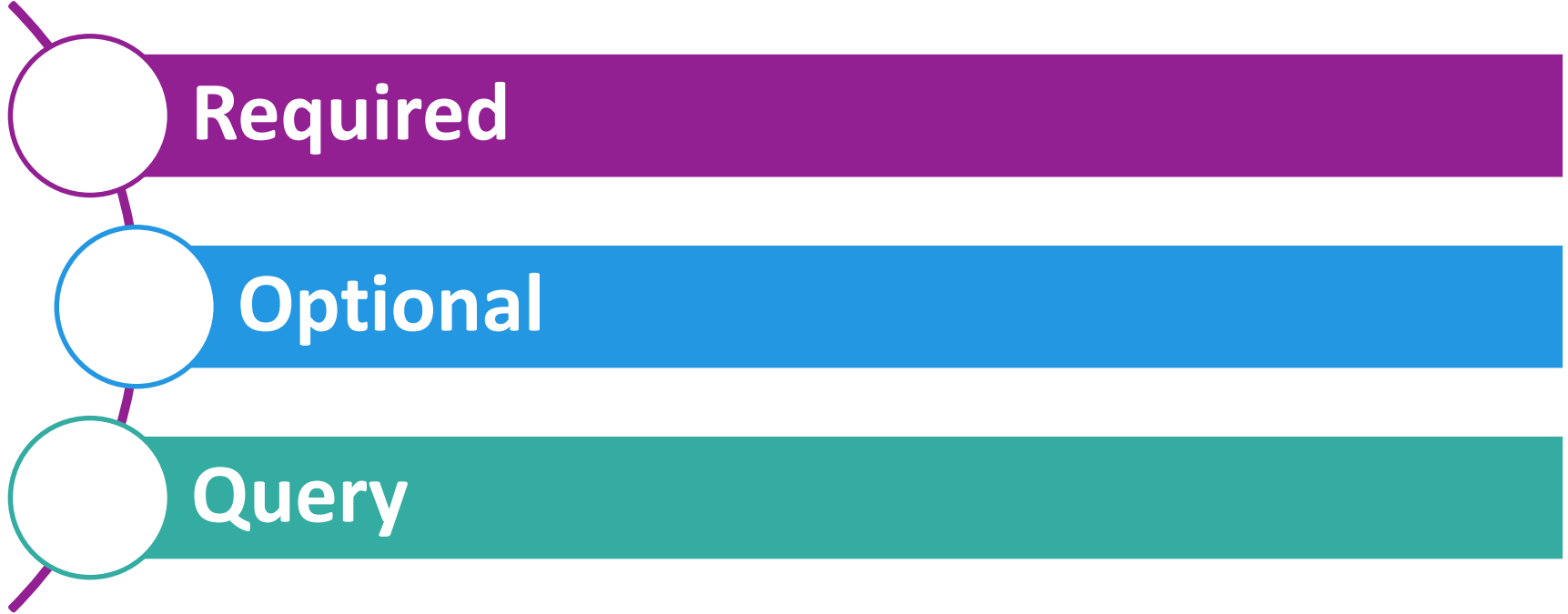
Show Poster

Title	Director	Release Date	MPAA Rating	DVD Price	5 Star Rating	Audience Approval	
The Lord of the Rings: The Fellowship of the Ring	Peter Jackson	Dec 19, 2001	PG 13	\$12.95	★★★★★	97%	Edit
The Lord of the Rings: The Two Towers	Peter Jackson	Dec 18, 2002	PG 13	\$14.95	★★★★★	94%	Edit
The Lord of the Rings: The Return of the King	Peter Jackson	Dec 17, 2003	PG 13	\$15.95	★★★★★	99%	Edit
The Point	Fred Wolf	Feb 2, 1971	NR	\$9.95	★★★★★	93%	Edit
Pixels	Chris Columbus	Jul 24, 2015	PG 13	\$5.59	★★★	17%	Edit

Data, Data, Data



Routing Parameters



Required Parameters

Configure

```
{ path: 'movies/:id', component: MovieDetailComponent }
```

Activate

```
<a [routerLink]="['/movies', movie.id]">...</a>
```

```
this.router.navigate(['/movies', this.movie.id]);
```

Resulting Url

```
http://localhost:4200/movies/5
```

Read

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

Optional Parameters

Configure

```
{ path: 'movies', component: MovieListComponent }
```

Activate

```
<a [routerLink]="['/movies',{title:ring,si: true}]">...</a>
```

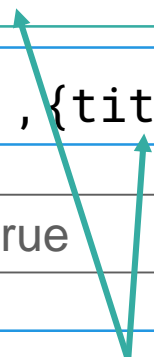
```
this.router.navigate([' /movies', {title: ring, si:true}]);
```

Resulting Url

```
http://localhost:4200/movies;title=ring;si=true
```

Read

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



Query Parameters

Configure

```
{ path: 'movies', component: MovieListComponent }
```

Activate

```
<a [routerLink]="['/movies']"  
  [queryParams]="{title: ring, si: true}">...</a>
```

```
this.router.navigate([' /movies'],  
                      {queryParams: {title: 'ring', si:true}});
```

Resulting Url

```
http://localhost:4200/movies?title=ring&si=true
```

Read

```
this.route.snapshot.queryParamMap.get('title');
```

Movie Hunter

localhost:4200/movies/1

HomeMovie ListAdvanced SearchAdd MovieWelcome DeborahLog Out

Movie Detail: The

Description: A me
dark l
Director: Peter
Release Date: Dec 1
MPAA Film Rating: PG-13
Category: action
Tags: action
Star Rating: ★ ★
Audience Approval: 97%
Average DVD Price: \$12.9

[< Back](#)[Edit](#)[InStep Movie Hunter](#)[Home](#)[Movie List](#)[Advanced Search](#)[Add Movie](#)[Welcome Deborah](#)[Log Out](#)

Advanced Search

Movie Title

Director

Min Star Rating (1-5)

Max Star Rating (1-5)

Description

[Search](#)

Preventing Partial Page Display

Movie Hunter

Deborah

localhost:4200/movies/1

🔑 ☆ ⋮

Home

Movie List

Advanced Search

Add Movie

Welcome Deborah

Log Out

Movie Detail: The Lord of the Rings: The Fellowship of the Ring

Description:

Director:

Release Date:

MPAA Film Rating:

Category:

Tags:

Star Rating:

Audience Approval:

Average DVD Price:

⬅ Back

Edit

Build a Resolver Service

movie-resolver.service.ts

```
@Injectable({
  providedIn: 'root'
})
export class MovieResolver implements Resolve<IMovie> {

  constructor(private movieService: MovieService) { }

  resolve(route: ActivatedRouteSnapshot,
    state: RouterStateSnapshot): Observable<IMovie> {
    const id = route.paramMap.get('id');
    return this.movieService.getMovie(+id);
  }
}
```

Add Resolver to Route

movie.module.ts

```
{  
  path: 'movies/:id',  
  resolve: { movie: MovieResolver },  
  component: MovieDetailComponent  
},
```

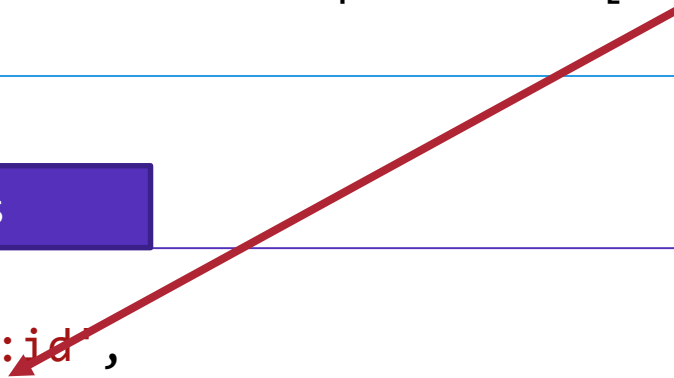
Read Resolver Data

movie-detail.component.ts

```
ngOnInit(): void {  
  this.movie = this.route.snapshot.data['movie'];  
}
```

movie.module.ts

```
{  
  path: 'movies/:id',  
  resolve: { movie: MovieResolver },  
  component: MovieDetailComponent  
},
```



Movie Hunter

Deborah

localhost:4200/movies/1

🔑 ☆ ⋮

Home

Movie List

Advanced Search

Add Movie

Welcome Deborah

Log Out

Movie Detail: The Lord of the Rings: The Fellowship of the Ring

Description:	A meek hobbit of the Shire and eight companions set out on a journey to Mount Doom to destroy the One Ring and the dark lord Sauron.
Director:	Peter Jackson
Release Date:	Dec 19, 2001
MPAA Film Rating:	PG-13
Category:	action
Tags:	action,adventure,hobbits
Star Rating:	★★★★★
Audience Approval:	97%
Average DVD Price:	\$12.95

⬅ Back

Edit

I'm Waiting ...

Movie List

Filter by:

[Show Poster](#)

Title	Director	Release Date	MPAA Rating	DVD Price	5 Star Rating	Audience Approval	
The Lord of the Rings: The Fellowship of the Ring	Peter Jackson	Dec 19, 2001	PG 13	\$12.95	★★★★★	97%	Edit
The Lord of the Rings: The Two Towers	Peter Jackson	Dec 18, 2002	PG 13	\$14.95	★★★★★	94%	Edit
The Lord of the Rings: The Return of the King	Peter Jackson	Dec 17, 2003	PG 13	\$15.95	★★★★★	99%	Edit
The Point	Fred Wolf	Feb 2, 1971	NR	\$9.95	★★★★★	93%	Edit
Pixels	Chris Columbus	Jul 24, 2015	PG 13	\$5.59	★★★	17%	Edit

Subscribe to Router Events

app.component.ts

```
constructor(private router: Router) {  
  router.events.subscribe((routerEvent: Event) => {  
    this.checkRouterEvent(routerEvent);  
  });  
}
```

Check Router Events

app.component.ts

```
checkRouterEvent(routerEvent: Event): void {  
  if (routerEvent instanceof NavigationStart) {  
    this.loading = true;  
  }  
  
  if (routerEvent instanceof NavigationEnd ||  
      routerEvent instanceof NavigationCancel ||  
      routerEvent instanceof NavigationError) {  
    this.loading = false;  
  }  
}
```

Display the Spinner

app.component.html

```
<span class="fa fa-spinner spinner"  
  *ngIf="loading"></span>  
<router-outlet></router-outlet>
```

Movie List

Filter by:

[Show Poster](#)

Title	Director	Release Date	MPAA Rating	DVD Price	5 Star Rating	Audience Approval	
The Lord of the Rings: The Fellowship of the Ring	Peter Jackson	Dec 19, 2001	PG 13	\$12.95	★★★★★	97%	Edit
The Lord of the Rings: The Two Towers	Peter Jackson	Dec 18, 2002	PG 13	\$14.95	★★★★★	94%	Edit
The Lord of the Rings: The Return of the King	Peter Jackson	Dec 17, 2003	PG 13	\$15.95	★★★★★	99%	Edit
The Point	Fred Wolf	Feb 2, 1971	NR	\$9.95	★★★★★	93%	Edit
Pixels	Chris Columbus	Jul 24, 2015	PG 13	\$5.59	★★★	17%	Edit

What's going on?

Console

Elements

Sources

Network

Performance

Memory

Application

Security

Audits

top

Filter

Default levels ▼

▼ Router Event: NavigationStart

NavigationStart(id: 5, url: '/movies/3')

▶ NavigationStart {id: 5, url: "/movies/3"}

▼ Router Event: RoutesRecognized

RoutesRecognized(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') path:'id') } } }

▶ RoutesRecognized {id: 5, url: "/movies/3", urlAfterRedirects: "/movies/3", state: RouterStateSnapshot}

▼ Router Event: GuardsCheckStart

GuardsCheckStart(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') path:'id') } } }

▶ GuardsCheckStart {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot}

▼ Router Event: GuardsCheckEnd

GuardsCheckEnd(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { path:'id') } } }, shouldActivate: true)

▶ GuardsCheckEnd {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot, shouldActivate: true}

▼ Router Event: ResolveStart

ResolveStart(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { RouterStateSnapshot }) { RouterStateSnapshot }) { RouterStateSnapshot })

▶ ResolveStart {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot}

Data: {"id":3,"director":"Peter Jackson","description":"Gandalf and Aragorn lead the World of Men against Ring.", "imageUrl":http://www.coverwhiz.com/content/The-Lord-Of-The-Rings-The-Return-Of-The-King_small.jpg King", "price":15.95, "starRating":4.5, "approvalRating":0.9895, "category":"action", "tags":["action", "adventure"]}

▼ Router Event: ResolveEnd

ResolveEnd(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { RouterStateSnapshot }) { RouterStateSnapshot })

▶ ResolveEnd {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot}

▼ Router Event: NavigationEnd

NavigationEnd(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3')

⋮

Console

```
RouterModule.forRoot([
  {
    path: '', component: ShellComponent,
    children: [
      { path: 'welcome', component: WelcomeComponent },
      { path: 'movies', component: MovieListComponent },
      { path: '', redirectTo: 'welcome', pathMatch: 'full' },
    ]
  },
  { path: 'login', component: LoginComponent },
  { path: '**', component: PageNotFoundComponent }
], { enableTracing: true })
```

Console

Elements

Sources

Network

Performance

Memory

Application

Security

Audits

top

Filter

Default levels ▼

▼ Router Event: NavigationStart

NavigationStart(id: 5, url: '/movies/3')

▶ NavigationStart {id: 5, url: "/movies/3"}

▼ Router Event: RoutesRecognized

RoutesRecognized(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { path:'id' } })

▶ RoutesRecognized {id: 5, url: "/movies/3", urlAfterRedirects: "/movies/3", state: RouterStateSnapshot}

▼ Router Event: GuardsCheckStart

GuardsCheckStart(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { path:'id' } })

▶ GuardsCheckStart {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot}

▼ Router Event: GuardsCheckEnd

GuardsCheckEnd(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { path:'id' } }), shouldActivate: true)

▶ GuardsCheckEnd {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot, shouldActivate: true}

▼ Router Event: ResolveStart

ResolveStart(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { path:'id' } })

▶ ResolveStart {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot}

Data: {"id":3,"director":"Peter Jackson","description":"Gandalf and Aragorn lead the World of Men against Sauron's army to end his tyrannical rule over the world once and for all.", "imageurl":http://www.coverwhiz.com/content/The-Lord-Of-The-Rings-The-Return-Of-The-King_small.jpg, "price":15.95,"starRating":4.5,"approvalRating":0.9895,"category":"action","tags":["action","adventure"]}

▼ Router Event: ResolveEnd

ResolveEnd(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3', state: Route(url:'', path:'') { path:'id' } })

▶ ResolveEnd {id: 5, url: "/movies/3", urlAfterRedirects: UrlTree, state: RouterStateSnapshot}

▼ Router Event: NavigationEnd

NavigationEnd(id: 5, url: '/movies/3', urlAfterRedirects: '/movies/3')

⋮

Console

Guards at the Ready

Log In

User Name

Password

Log In

InStep Movie Hunter

Home

Welcome Deborah

Log Out

Edit Movie: The Point

Basic Information

Search Tags

Basic Movie Information

Movie Title

Director

Star Rating (1-5)

Description

An animated story of an unusual kingdom in which everything and everybody is pointed - except for a young boy named Oblio. Despite his round head, Oblio has many friends. But an evil count, jealous that Oblio is more popular than his own son,

Save

Cancel

Delete

localhost:4200 says:

Navigate away and lose all changes to The Point?

OK

Cancel

Build a Guard Service

movie-edit-guard.service.ts

```
@Injectable({
  providedIn: 'root'
})
export class MovieEditGuard implements
  CanDeactivate<MovieEditComponent> {

  canDeactivate(component: MovieEditComponent): boolean {
    if (component.isDirty) {
      const title = component.movie.title || 'New Movie';
      return confirm(`Lose all changes to ${title}?`);
    }
    return true;
  }
}
```

Add Guard to Route

movie.module.ts

```
{  
  path: 'movies/:id/edit',  
  resolve: { movie: MovieResolver },  
  canActivate: [ MovieEditGuard ],  
  component: MovieEditComponent  
}
```

Log In

User Name

Password

Log In

InStep Movie Hunter

Home

Welcome Deborah

Log Out

Edit Movie: The Point

Basic Information

Search Tags

Basic Movie Information

Movie Title

Director

Star Rating (1-5)

Description

An animated story of an unusual kingdom in which everything and everybody is pointed - except for a young boy named Oblio. Despite his round head, Oblio has many friends. But an evil count, jealous that Oblio is more popular than his own son,

Save

Cancel

Delete

localhost:4200 says:

Navigate away and lose all changes to The Point?

OK

Cancel

Keep Tabs

Movie Hunter

localhost:4200/movies/1/edit/info

HomeMovie ListAdvanced SearchAdd MovieWelcome DeborahLog Out

Edit Movie: The Lord of the Rings: The Fellowship of the Ring

Basic Information

Search Tags

Basic Movie Information

Movie Title

The Lord of the Rings: The Fellowship of the Ring

Director

Peter Jackson

Star Rating (1-5)

4.88

Description

A meek hobbit of the Shire and eight companions set out on a journey to Mount Doom to destroy the One Ring and the dark lord Sauron.

Save

Cancel

Delete

app

shell

edit

```
RouterModule.forRoot([
  {
    path: '', component: ShellComponent,
    children: [
      { path: 'welcome', component: WelcomeComponent },
      { path: 'movies', component: MovieListComponent },
      { path: 'movies/:id', component: MovieDetailComponent },
      { path: '', redirectTo: 'welcome', pathMatch: 'full' },
    ]
  },
  { path: 'login', component: LoginComponent },
  { path: '**', component: PageNotFoundComponent }
])
```



```
{  
  path: '', component: ShellComponent,  
  children: [  
    { path: 'welcome', component: WelcomeComponent },  
    { path: 'movies', component: MovieListComponent },  
    { path: 'movies/:id', component: MovieDetailComponent },  
    { path: 'movies/:id/edit', component: MovieEditComponent,  
      children: [  
        { path: '', redirectTo: 'info', pathMatch: 'full' },  
        { path: 'info', component: MovieEditInfoComponent },  
        { path: 'tags', component: MovieEditTagsComponent }  
      ]  
    }  
  ]  
}, ...
```

Edit View

movie-edit.component.html

```
<div class="card-body">
  <div class="wizard">
    <a [routerLink]="['info']" routerLinkActive="active">
      Basic Information</a>
    <a [routerLink]="['tags']" routerLinkActive="active">
      Search Tags</a>
  </div>

  <router-outlet></router-outlet>
</div>
```

Movie Hunter

localhost:4200/movies/1/edit/info

HomeMovie ListAdvanced SearchAdd MovieWelcome DeborahLog Out

Edit Movie: The Lord of the Rings: The Fellowship of the Ring

Basic Information

Search Tags

Basic Movie Information

Movie Title

The Lord of the Rings: The Fellowship of the Ring

Director

Peter Jackson

Star Rating (1-5)

4.88

Description

A meek hobbit of the Shire and eight companions set out on a journey to Mount Doom to destroy the One Ring and the dark lord Sauron.

Save

Cancel

Delete

edit

Keep Constant

app-routing.module.ts

```
@NgModule({
  imports: [
    RouterModule.forRoot([
      {
        path: '', component: ShellComponent,
        children: [
          { path: 'welcome', component: WelcomeComponent },
          { path: 'movies', component: MovieListComponent },
          { path: 'movies/:id', component: MovieDetailComponent },
          {
            path: 'movies/:id/edit', component: MovieEditComponent,
            children: [
              { path: '', redirectTo: 'info', pathMatch: 'full' },
              { path: 'info', component: MovieEditInfoComponent },
              { path: 'tags', component: MovieEditTagsComponent }
            ]
          },
          { path: '', redirectTo: 'welcome', pathMatch: 'full' }
        ]
      },
      { path: 'login', component: LoginComponent },
      { path: '**', component: PageNotFoundComponent }
    ])
  ],
  exports: [RouterModule]
})

export class AppRoutingModule { }
```

app-routing.module.ts

```
const appRoutes: Routes = [
  {
    path: '', component: ShellComponent,
    children: [
      { path: 'welcome', component: WelcomeComponent },
      { path: 'movies', component: MovieListComponent },
      { path: 'movies/:id', component: MovieDetailComponent },
      { path: 'movies/:id/edit', component: MovieEditComponent,
        children: [
          { path: '', redirectTo: 'info', pathMatch: 'full' },
          { path: 'info', component: MovieEditInfoComponent },
          { path: 'tags', component: MovieEditTagsComponent }
        ]
      },
      { path: '', redirectTo: 'welcome', pathMatch: 'full' }
    ]
  },
  { path: 'login', component: LoginComponent },
  { path: '**', component: PageNotFoundComponent }
];
```

```
@NgModule({  
  imports: [  
    RouterModule.forRoot(appRoutes)  
  ],  
  exports: [RouterModule]  
})  
export class AppRoutingModule { }
```

It's a Feature

What About Feature Modules?

app-routing.module.ts

```
const appRoutes: Routes = [
  {
    path: '', component: ShellComponent,
    children: [
      { path: 'welcome', component: WelcomeComponent },
      { path: 'movies', component: MovieListComponent },
      { path: 'movies/:id', component: MovieDetailComponent },
      { path: 'movies/:id/edit', component: MovieEditComponent,
        children: [
          { path: '', redirectTo: 'info', pathMatch: 'full' },
          { path: 'info', component: MovieEditInfoComponent },
          { path: 'tags', component: MovieEditTagsComponent }
        ]
      },
      { path: '', redirectTo: 'welcome', pathMatch: 'full' }
    ]
  },
  { path: 'login', component: LoginComponent },
  { path: '**', component: PageNotFoundComponent }
];
```

movie.module.ts

```
const movieRoutes: Routes = [  
  { path: 'movies', component: MovieListComponent } ,  
  { path: 'movies/:id', component: MovieDetailComponent },  
  { path: 'movies/:id/edit', component: MovieEditComponent,  
    children: [  
      { path: '', redirectTo: 'info', pathMatch: 'full' },  
      { path: 'info', component: MovieEditInfoComponent },  
      { path: 'tags', component: MovieEditTagsComponent }  
    ]  
  }  
];
```

```
@NgModule({  
  imports: [ ...,  
    RouterModule.forChild(movieRoutes) // Won't work  
  ], ...  
})  
  
export class MovieModule { }
```

```
imports: [  
  MovieModule,  
  RouterModule.forRoot(appRoutes)  
]
```

Merged Routes

```
{ path: 'movie', component: MovieListComponent } ,  
{ path: 'movie/:id', component: MovieDetailComponent },  
{ path: 'movie/:id/edit', component: MovieEditComponent,  
  children: [  
    { path: '', redirectTo: 'info', pathMatch: 'full' },  
    { path: 'info', component: MovieEditInfoComponent },  
    { path: 'tags', component: MovieEditTagsComponent }  
  ]  
}  
{ path: '', component: ShellComponent,  
  children: [  
    { path: 'welcome', component: WelcomeComponent },  
    { path: '', redirectTo: 'welcome', pathMatch: 'full' }  
  ]  
},  
{ path: 'login', component: LoginComponent },  
{ path: '**', component: PageNotFoundComponent }
```

Lazy Loading



From: Angular Routing course on Pluralsight

loadChildren

app-routing.module.ts

```
{
  path: '', component: ShellComponent,
  children: [
    { path: 'welcome', component: WelcomeComponent },
    {
      path: 'movies',
      loadChildren: './movies/movie.module#MovieModule'
    },
    { path: '', redirectTo: 'welcome', pathMatch: 'full' }
  ]
},
{ path: 'login', component: LoginComponent },
{ path: '**', component: PageNotFoundComponent }
```

movie.module.ts

```
const movieRoutes: Routes = [
  { path: '', component: MovieListComponent },
  { path: ':id', component: MovieDetailComponent },
  { path: ':id/edit', component: MovieEditComponent,
    children: [
      { path: '', redirectTo: 'info', pathMatch: 'full' },
      { path: 'info', component: MovieEditInfoComponent },
      { path: 'tags', component: MovieEditTagsComponent }
    ]
  }
];

@NgModule({
  imports: [ ...,
    RouterModule.forChild(movieRoutes)
  ], ...
})

export class MovieModule { }
```

Preload Strategy

app-routing.module.ts

```
// Preloads each module after initial load
```

```
imports: [  
  RouterModule.forRoot(appRoutes,  
    { preloadingStrategy: PreloadAllModules })  
]
```

```
// Loads each module on demand
```

```
imports: [  
  RouterModule.forRoot(appRoutes,  
    { preloadingStrategy: NoPreloading })  
]
```


Guarding all Feature Routes

app-routing.module.ts

```
{
  path: '', component: ShellComponent,
  children: [
    { path: 'welcome', component: WelcomeComponent },
    {
      path: 'movies',
      canActivate: [AuthGuard],
      loadChildren: './movies/movie.module#MovieModule'
    },
    { path: '', redirectTo: 'welcome', pathMatch: 'full' }
  ]
}, ...
```

Demo

Thank You!

@deborahkurata

<https://github.com/DeborahK/>

MovieHunter-routing

bit.ly/Angular-GettingStarted

bit.ly/Angular-routing