



Cross Cutting Concerns

Manfred Steyer
SOFTWAREarchitekt.at

Contents

- Router Guards
- HttpInterceptor

SOFTWAREarchitekt.at

Router Guards

Page ▪ 3

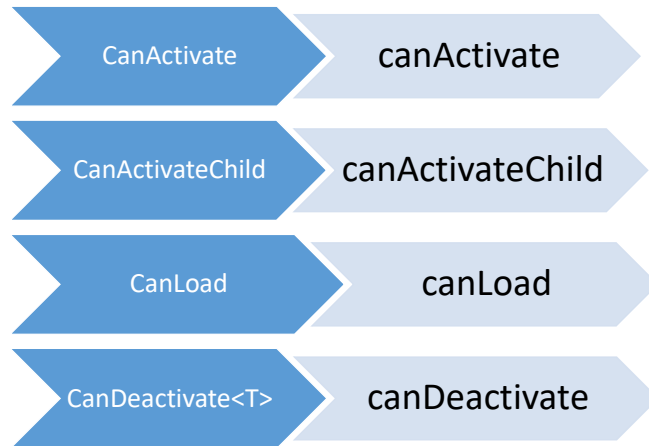
What are Guards?

- Services
- Can prevent the Activation or Deactivation of a Route

Page ▪ 4

SOFTWAREarchitekt.at

Guards



Result: boolean | Observable<boolean> | Promise<boolean>

SOFTWAREarchitekt.at

Configure Guards

```
const APP_ROUTES: Routes = [
  {
    path: '/flight-booking',
    component: FlightBookingComponent,
    canActivate: [AuthGuard],
    children: [
      {
        path: 'flight-edit/:id',
        component: FlightEditComponent,
        canDeactivate: [FlightEditGuard]
      },
      [...]
    ]
  }
]
```

Provider for Guards

```
// app.module.ts
@NgModule({
  providers: [
    FlightEditGuard,
    AuthGuard
  ],
  [...]
})
export class XYModule {
}
```

DEMO 

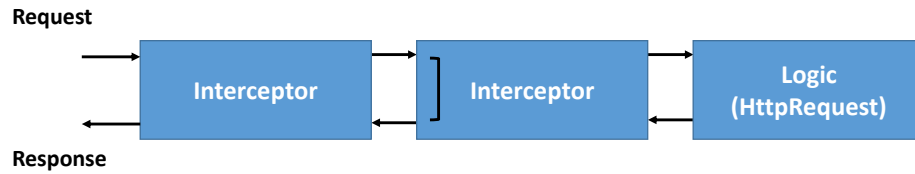
Http-Interceptors



Idea

- Providing a **hook** for HttpClient
- Modify requests and responses globally
- Including Headers, e. g. for Auth.
- Parsing Data Formats, like XML
- Error Handling
- Caching
- ...

Chain of Responsibility



SOFTWAREarchitekt.at

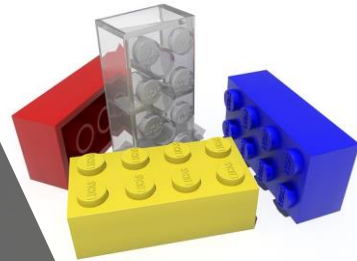
DEMO

Sending Access Token for Auth

Global Error Handler for Auth

SOFTWAREarchitekt.at

Directives



Warning
Directive

12	<div>Unter localhost:8080 wird Folgendes angezeigt: Are you sure? <input type="checkbox"/> Diese Seite am Erstellen zusätzlicher Dialoge hindern <div>OK Abbrechen</div></div>
From	
Graz	
To	
Hamburg	
Datum	
<div>Save Remove</div>	

Goal

```
<button (clickWithWarning)="delete()" warning="really?">
```

SOFTWAREarchitekt.at

Directive

```
@Directive({  
  selector: '[clickWithWarning]'  
})  
export class ClickWithWarningDirective implements OnInit {  
  
  [...]  
}
```

SOFTWAREarchitekt.at

Directive

```
@Directive({
  selector: '[clickWithWarning]'
})
export class ClickWithWarningDirective implements OnInit {

  @Input() warning: string = 'Are you sure?';
  @Output() clickWithWarning = new EventEmitter();

  [...]
}
```

SOFTWAREarchitekt.at

Directive

```
@Directive({
  selector: '[clickWithWarning]'
})
export class ClickWithWarningDirective implements OnInit {

  @Input() warning: string = 'Are you sure?';
  @Output() clickWithWarning = new EventEmitter();

  @HostBinding('class') cssClass: string = 'btn btn-danger';

  [...]
}
```

SOFTWAREarchitekt.at

Directive

```
@Directive({
  selector: '[clickWithWarning]'
})
export class ClickWithWarningDirective implements OnInit {

  @Input() warning: string = 'Are you sure?';
  @Output() clickWithWarning = new EventEmitter();

  @HostBinding('class') cssClass: string;

  @HostListener('click', ['$event'])
  handleClick($event): void {
    if (confirm(this.warning)) {
      this.clickWithWarning.emit();
    }
  }
}
```

SOFTWAREarchitekt.at

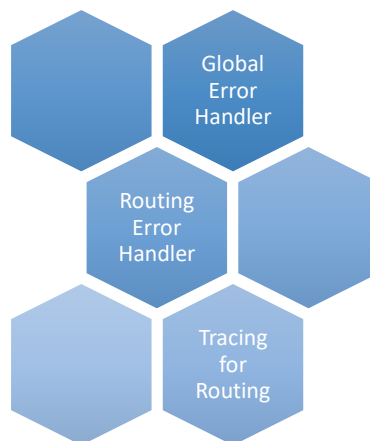
DEMO

SOFTWAREarchitekt.at

Global Error Handler



Global Error Handler and Tracing



SOFTWAREarchitekt.at