



ANGULAR
ARCHITECTS
INSIDE KNOWLEDGE

Routing & Navigation

Alex Thalhammer

Outline

- Motivation
- Configuration
- Routing parameters

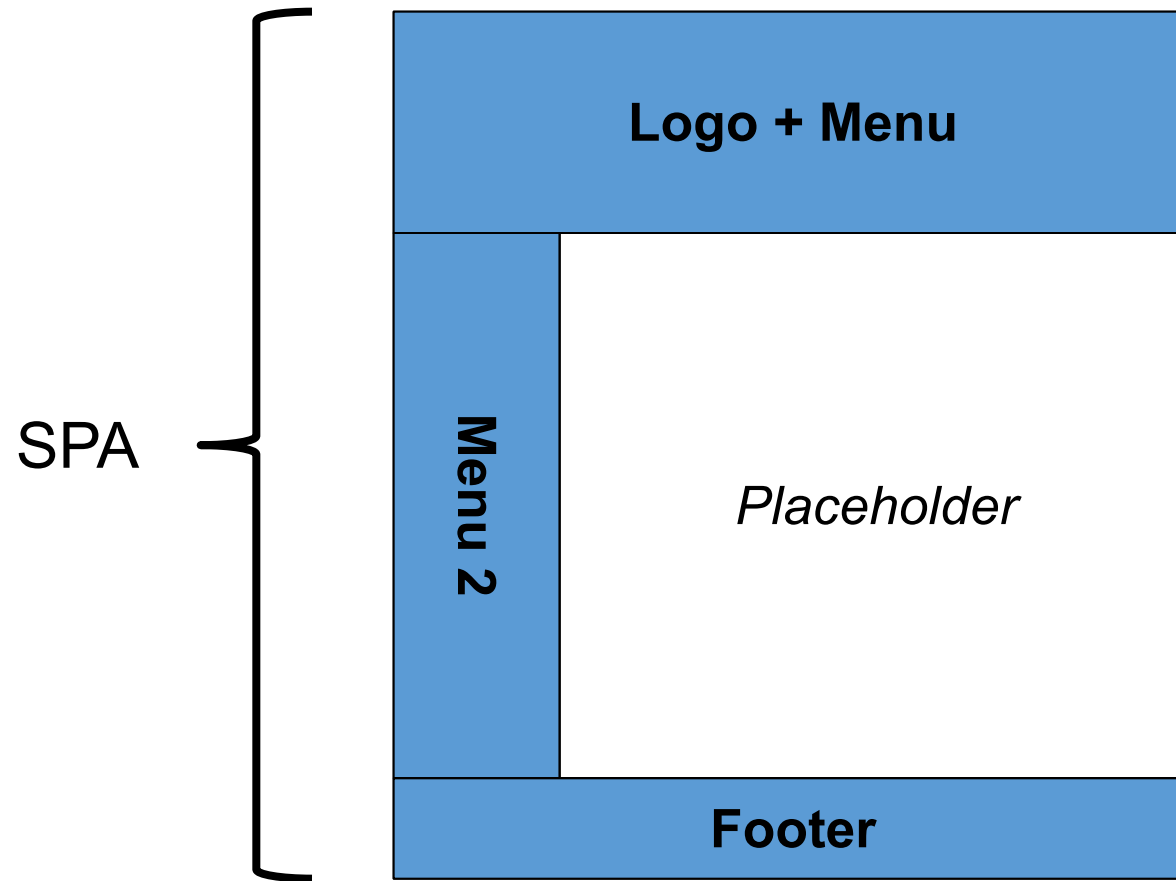


Motivation

- SPAs → single page application
- Simulate pages → routes
- URL should direct to the routed component
 - Menus & Bookmarks
 - Sharing (social)
 - **Back button!**

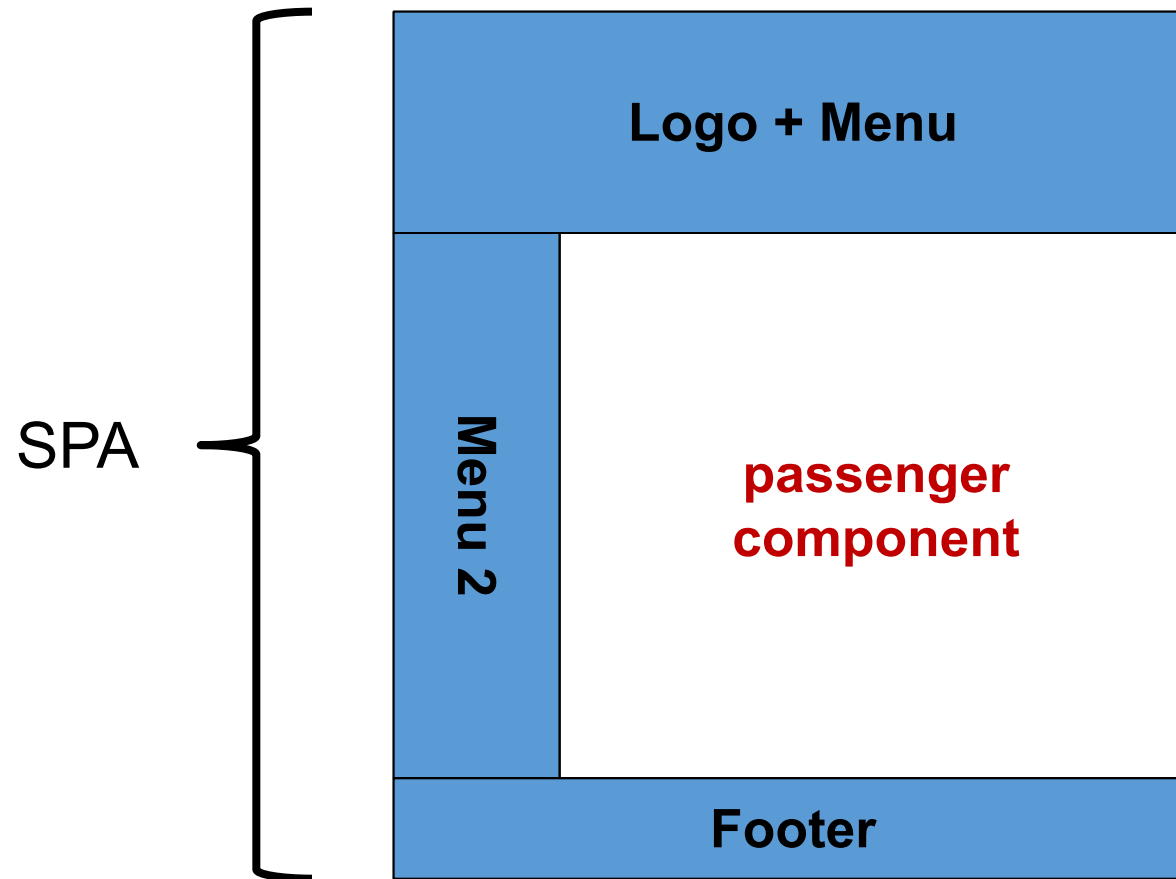


Routing in Angular



Routing in Angular

/flight-demo/**passenger**



Routing via hash fragment

- /flight-demo#passenger
- Hash-Fragment is never sent to the server
- But we don't like this, do we?

Routing via History API

- /flight-demo/**passenger**
- Readable for humans!
- Whole URL will be send to the server
 - Server responds with the SPA
 - Server can optionally render the initial view
 - Performance, SEO, ...
 - SPA informs the browser which part of the URL belongs:
 - to the server
 - to the Angular Route





Angular Router

Preparation

- Angular Module: RouterModule (@angular/router)
- Definition of the limit between URL and Angular Route with the History API:
 - Options to define:
 - angular.json
 - <base href="/"> in index.html
 - Token: APP_BASE_HREF (@angular/common)

Configuration

```
export const APP_ROUTES: Routes = [  
  {  
    path: 'home',  
    component: HomeComponent  
  },  
  {  
    path: 'flight-search',  
    component: FlightSearchComponent  
  }  
]
```



Configuration

```
export const APP_ROUTES: Routes = [  
  {  
    path: '',  
    redirectTo: 'home',  
    pathMatch: 'full'  
  },  
  {  
    path: 'home',  
    component: HomeComponent  
  },  
  {  
    path: 'flight-search',  
    component: FlightSearchComponent  
  }  
]
```



Configuration

```
export const APP_ROUTES: Routes = [  
  {  
    path: '',  
    redirectTo: 'home',  
    pathMatch: 'full'  
  },  
  {  
    path: 'home',  
    component: HomeComponent  
  },  
  [...]  
  {  
    path: '**',  
    redirectTo: 'home'  
  }  
]
```

←----- Last route!!!



Configuration

```
// app.module.ts
@NgModule({
  imports: [
    BrowserModule,
    HttpClientModule,
    FormsModule,
    RouterModule.forRoot(APP_ROUTES)
  ],
  [...],
})
export class AppModule {}
```

for feature module: **forChild**

for root module

View von AppComponent

```
<a [routerLink]='"/'>Home</a>  
<a [routerLink]='"/flight-search">Search flight</a>  
  
<div>  
  <router-outlet></router-outlet>  
</div>
```



View von AppComponent

```
<a routerLink="/">Home</a>  
<a routerLink="/flight-search">Search flight</a>  
  
<div>  
  <router-outlet></router-outlet>  
</div>
```



Programmatic routing

```
export class AppComponent {  
  
    constructor(private router: Router) {}  
  
    navigateToFlightSearch(): void {  
        this.router.navigate(['/flight-search']);  
    }  
  
}
```



DEMO



Routing with parameters

Parameters

- `passenger/7`
- `passenger/7;details=true;page=7`
- `passenger/7;details=true;page=7/flights`



Configuration

```
const APP_ROUTES: Routes = [  
  [...]  
  {  
    path: 'flight-search',  
    component: FlightSearchComponent  
  },  
  {  
    path: 'flight-edit/:id',  
    component: FlightEditComponent  
  }  
]
```



Parse parameters

```
export class FlightEditComponent {  
  public id: string;  
  
  constructor(private route: ActivatedRoute) {  
  
    ngOnInit(): void {  
      this.route.paramMap.subscribe(  
        params => {  
          this.id = params.get('id');  
          [...]  
        }  
      );  
    }  
  }  
  [...]  
}
```



Links of routes with parameters

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

Links of routes with parameters

```
<a [routerLink]="['/flight-edit', flight.id, {showDetails:true}]">Edit</a>
```



DEMO



LAB

