



# Program Systems Development practice

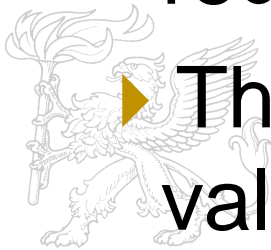
## Practice 11

Angular 2 - Auth Guard  
Local- & SessionStorage



# Auth Guards

- ▶ Also known as Route Guards
- ▶ Interfaces that can tell the router whether it should allow navigation to a requested route
- ▶ You can protect routes from unauthorized requests
- ▶ They need a boolean (true/false) return value from a class that implements an interface



# Guard Types

- ▶ **CanActivate** (*this is the most important for us*)
  - to mediate navigation *to* a route.
- ▶ **CanActivateChild**
  - to mediate navigation *to* a child route.
- ▶ **CanDeactivate**
  - to mediate navigation *away* from the current route.
- ▶ **CanLoad**
  - to mediate navigation *to* a feature module loaded *asynchronously*.
- ▶ **Resolve**
  - to perform route data retrieval *before* route activation.



# CanActivate

- ▶ Mainly used for handling authentication on the client side and protect routes.
- ▶ You have to extend the route definition that you would like to protect.
  - `{path: 'about', component: AboutComponent, canActivate: [AuthService]}`
  - In this example the AboutComponent that can be accessed by using /about, it is protected by the strategy of AuthService



# CanActivate

- ▶ After the extension of route definition, you have to implement the interface

- `@Injectable()`  
`export class AuthService implements CanActivate{`  
    `public canActivate():`  
    `Observable<boolean> | Promise<boolean> | boolean {`  
        `return ...`  
    `}`



# Local Storage

- ▶ It is a built-in storage of a browser.
- ▶ All of the major browser support it.
- ▶ It stores the data by key-value pairs.
- ▶ It can be easily accessed from Angular source code.

■ `localStorage.setItem(key, value);`

- ▶ The stored data has no expiration date.



# Session Storage

- ▶ It is a built-in storage of a browser.
- ▶ All of the major browser support it.
- ▶ It stores the data by key-value pairs.
- ▶ It can be easily accessed from Angular source code.

- `sessionStorage.setItem(key, value);`

- ▶ The content of the storage is cleared when the page session ends.

- Opening a page in a new tab or window, creates a new session.

# Local Storage vs. Session Storage

- ▶ Storage limit of Local Storage is higher than the one of Session Storage.
- ▶ Local Storage does not work with expiration date, but Session Storage does.

- In Session Storage the data is stored only for a session (*until the browser (or tab) is closed.*)

