

# **Webtechnológiák 2.**

## **Fegyver nyilvántartó webalkalmazás**

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## **1. Feladat leírása**

Az általam készített webalkalmazás egy egyszerű fegyver nyilvántartó rendszer szimulálása.

A felhasználónak be kell jelentkeznie, hogy műveleteket tudjon végrehajtani.

A felhasználó képes: - a fegyverek listázására

- fegyverek keresésére
- fegyverek módosítására
- fegyverek törlésére
- fegyverek létrehozására

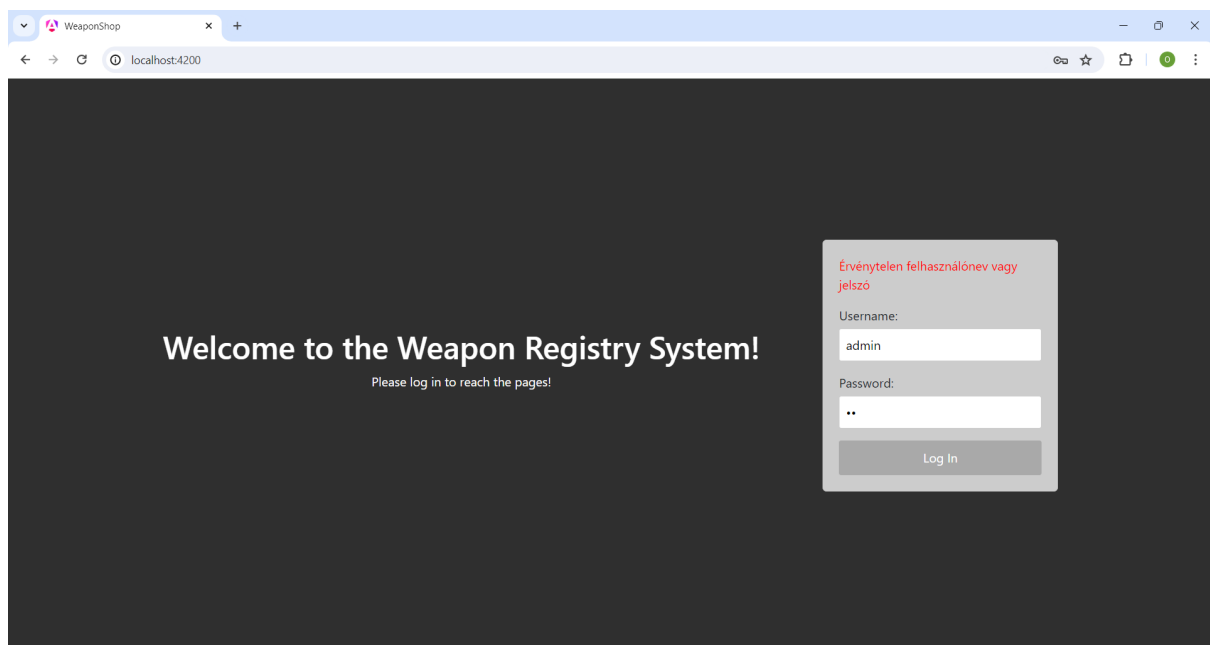
A műveletek után a felhasználó kijelentkezhet.

Az alkalmazás nézetét, forráskódjait, működését komponensenként fogom bemutatni.

## **2. LogIn felület**

Ahogy korábban említettem, a felhasználónak be kell jelentkeznie, hogy műveleteket hajtson végre.

A komponens ellenőrzi, a megadott felhasználó név és jelszó helyességét.



```
login.component.html x
src > app > login > login.component.html > body
Go to component
1 <body>
2   <div class="welcome-message">
3     <h1>Welcome to the Weapon Registry System!</h1>
4     <p>Please log in to reach the pages!</p>
5   </div>
6   <div class="login-container">
7     <div *ngIf="errorMessage" class="error-message">{{ errorMessage }}</div>
8     <form (ngSubmit)="login()">
9       <div class="form-group">
10        <label for="username">Username: </label>
11        <input type="text" id="username" name="username" [(ngModel)]="username" required>
12      </div>
13      <div class="form-group">
14        <label for="password">Password:</label>
15        <input type="password" id="password" name="password" [(ngModel)]="password" required>
16      </div>
17      <button type="submit">Log In</button>
18    </form>
19  </div>
20 </body>
21
```

Sikeres bejelentkezés után tovább lépünk a Home page-re.

### 3. Home page

A Home page a felületen a webalkalmazás leírása, bemutatása valamint a felhasználó lehetőségeit írja le.



## Welcome to the Weapon Registry System!

This is an Angular application made for subject named: Webtechnológiák 2

With this app, the user is able to do the following tasks:

- User must be logged in to reach the pages
- In the Home page the user can see, what we can do in this app
- In the Weapon page, we can see the list of the weapons
- In the New Weapon page, the user can add new weapons to the list ( and in the database either)
- The user can log out, after the finished operations
- The user can
  - Search for weapon elements
  - Modify the weapon elements
  - Delete the weapons

A Navigation component minden oldal számára biztosítja, hogy a felhasználó közlekedni tudjon az oldalak között.

```
navigation.component.html X
src > app > common > navigation > navigation.component.html > nav.navbar.navbar-expand-lg > div#navbarNav.collapse.navbar-collapse > ul.navbar-nav > li.nav-item-logout > a.nav-link

1 <nav class="navbar navbar-expand-lg">
2   <a class="navbar-brand"> Weapons </a>
3   <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="
4   | <span class="navbar-toggler-icon"></span>
5   </button>
6   <div class="collapse navbar-collapse" id="navbarNav">
7     <ul class="navbar-nav">
8       <li class="nav-item">
9         | <a [routerLinkActiveOptions]="{exact: true}" routerLinkActive="active" class="nav-link" routerLink="/home"> Home </a>
10        </li>
11        <li class="nav-item">
12          | <a [routerLinkActiveOptions]="{exact: true}" routerLinkActive="active" class="nav-link" routerLink="/weapon"> Weapons </a>
13          </li>
14          <li class="nav-item">
15            | <a [routerLinkActiveOptions]="{exact: true}" routerLinkActive="active" class="nav-link" routerLink="/add-weapon"> New Weapon </a>
16            </li>
17            <li class="nav-item-logout">
18              | <a [routerLinkActiveOptions]="{exact: true}" routerLinkActive="active" class="nav-link" routerLink="/"> Log Out </a>
19              </li>
20            </ul>
21          </div>
22        </nav>
23      <router-outlet></router-outlet>
24    </div>
25  </div>
26  </div>
27  </div>
```

## 4. Weapon page

Ezen az oldalon láthatjuk a kilistázott fegyvereket.

Mindegyik fegyvert a sorában lévő gombok szerint módosíthatunk vagy törölhetünk.

WeaponsShop					
localhost:4200/weapon					
Weapons Home Weapons New Weapon					Log Out
Search for an Item					
ID	Name	Price	Manufacturer	Quantity	Operations
1	M16 Assault Rifle	2002	Colt	61	Modify  Delete
3	AK-47	800	Kalashnikov Concern	125	Modify  Delete
4	Remington 870 Shotgun	400	Remington Arms	85	Modify  Delete
6	M1911 Pistol	800	Colt	182	Modify  Delete
7	AR-15 Carbine	1000	ArmaLite	169	Modify  Delete
8	Bowie Knife	200	Various	95	Modify  Delete
9	M4 Carbine	1200	Colt	172	Modify  Delete
10	FN SCAR	2500	FN Herstal	174	Modify  Delete
11	Desert Eagle Pistol	1500	Magnum Research	152	Modify  Delete
12	S&W Model 20 Revolver	1200	Smith & Wesson	20	Modify  Delete

```

24
12 <div class="row">
13   <div class="col-md-12">
14     <table class="table table-striped">
15       <thead>
16         <tr>
17           <th>ID</th>
18           <th>Name</th>
19           <th>Price</th>
20           <th>Manufacturer</th>
21           <th>Quantity</th>
22           <th>Operations</th>
23         </tr>
24       </thead>
25       <tbody>
26         @for(weapon of list$ | async | search: filterText(); track $index) {
27           <tr>
28             <td>{{ weapon.id }}</td>
29             <td>{{ weapon.Name }}</td>
30             <td>{{ weapon.Price }}</td>
31             <td>{{ weapon.Manufacturer }}</td>
32             <td>{{ weapon.Quantity }}</td>
33             <td>
34               <button class="button btn btn-info"
35                 (click)="goToWeaponForm(weapon.id)">
36                 Modify
37                 <i class="fa fa-edit"></i>
38             </button>
39             <button class="button btn btn-danger mx-3"
40               (click)="deleteWeapon(weapon)">
41               Delete
42               <i class="fa fa-trash"></i>
43             </button>
44           </td>
45         </tr>
46       </tbody>
47     </table>
48   </div>
49 </div>
50
51 </div>
52

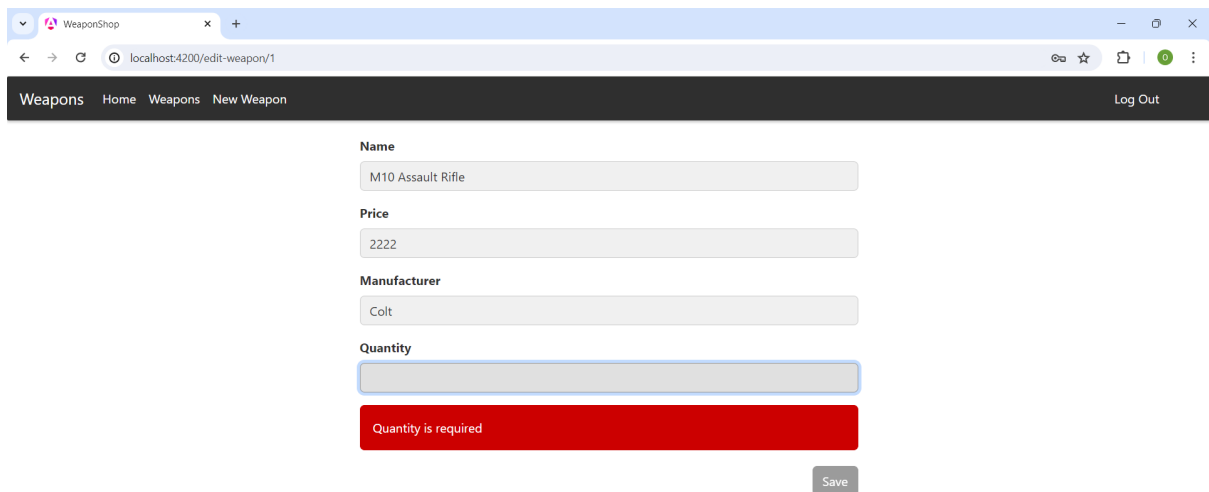
```

A módosítás gomb lenyomásával a következő Form komponens jelenik meg:

The screenshot shows a web browser window with the URL `localhost:4200/edit-weapon/1`. The page features a dark navigation bar with the following links: [Weapons](#), [Home](#), [Weapons](#), and [New Weapon](#), along with a [Log Out](#) button. The main content area displays a form for editing a weapon. The form fields are: Name (M16 Assault Rifle), Price (2002), Manufacturer (Colt), and Quantity (61). A [Save](#) button is located at the bottom right of the form.

Megjelenínek a Form-ban az adott sor adatai és itt van lehetőségünk módosítani őket.

A Form ellenőrzi, hogy a helyes adattípus van beírva valamint, hogy nem üres-e.



Weapons Home Weapons New Weapon Log Out

Name  
M10 Assault Rifle

Price  
2222

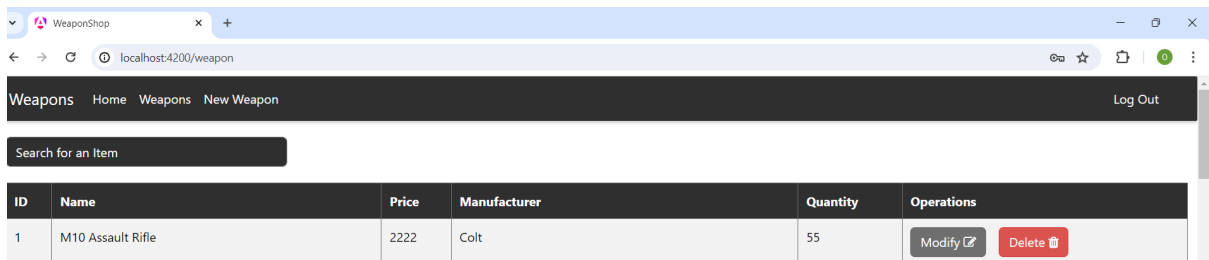
Manufacturer  
Colt

Quantity

Quantity is required

Save

A Save gombra való kattintás után visszaírányít a Weapon page-re, ahol látható a módosított sor.



Weapons Home Weapons New Weapon Log Out

Search for an Item

ID	Name	Price	Manufacturer	Quantity	Operations
1	M10 Assault Rifle	2222	Colt	55	<button>Modify</button> <button>Delete</button>

Save gomb hatására az saveWeapon metódus hívódik meg, ami ellenőrzi, hogy az adott fegyver létezik-e már.

```

isNewWeapon = true;
saveWeapon() {
  const weapon = this.weaponForm.value as WeaponDTO;

  if(this.isNewWeapon){
    this.weaponService.create(weapon).subscribe({
      next: (weaponCreated) => {
        // TODO notification
        this.router.navigateByUrl('/weapon');
      },
      error: (err) => {
        // TODO notification

        console.error(err);
      }
    });
  }
  else {
    this.weaponService.update(weapon).subscribe({
      next: (weaponCreated) => {
        // TODO notification
        this.router.navigateByUrl('/weapon');
      },
      error: (err) => {
        //TODO notification

        console.error(err);
      }
    });
  }
}

```

A Delete gomb megnyomásával egyszerűen törlődik az adott sor.

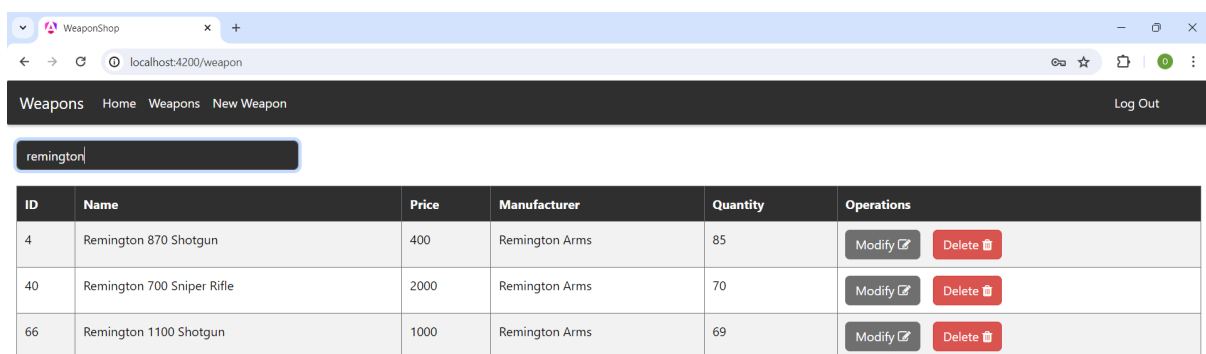


```

deleteWeapon(weapon: WeaponDTO) {
  this.weaponService.delete(weapon.id).subscribe({
    next: () => {
      const index = this.weapons.indexOf(weapon);
      if (index > -1){
        this.weapons.splice(index, 1);
      }
    },
    error: (err) => {
      //TODO notification
      console.error(err);
    }
  });
}
}

```

A Home page még tartalmaz egy kereső mezőt, amit kiszortírozza az adott lista elemeit. Ezt pipe-okkal valósítottam meg



The screenshot shows a web browser window with the URL 'localhost:4200/weapon'. The page has a navigation bar with 'Weapons', 'Home', 'Weapons', and 'New Weapon' links, and a 'Log Out' button. Below the navigation bar is a search bar containing the text 'remington'. Below the search bar is a table with the following data:

ID	Name	Price	Manufacturer	Quantity	Operations
4	Remington 870 Shotgun	400	Remington Arms	85	<a href="#">Modify</a> <a href="#">Delete</a>
40	Remington 700 Sniper Rifle	2000	Remington Arms	70	<a href="#">Modify</a> <a href="#">Delete</a>
66	Remington 1100 Shotgun	1000	Remington Arms	69	<a href="#">Modify</a> <a href="#">Delete</a>

Pipe megvalósítása:

```
TS search.pipe.ts X
src > app > pipe > TS search.pipe.ts > SearchPipe > transform
1 import { Pipe, PipeTransform } from '@angular/core';
2
3 @Pipe({
4   name: 'search',
5   standalone: true
6 })
7 export class SearchPipe<T> implements PipeTransform {
8
9   transform(value: T, phrase: string): unknown {
10
11     if(!Array.isArray(value) || !phrase){
12       return value;
13     }
14
15     phrase = phrase.toLowerCase();
16
17     return value.filter( el => Object.values(el)
18       .join(' ')
19       .toLowerCase()
20       .includes(phrase)
21     );
22   }
23 }
24
25
```

```
<> weapon-list.component.html X
src > app > weapon-list > <> weapon-list.component.html > ...
Go to component
1 <app-navigation></app-navigation>
2 <div class="row">
3   <div class="col-3">
4     <input
5       #filterInput
6       [value] = "filterText()"
7       (input)="filterText.set(filterInput.value)"
8       type="text" class="form-control" placeholder="Search for an Item">
9   </div>
10 </div>
```

## 5. New Weapon page

Ezen az oldalon tudunk új fegyvert hozzáadni a táblához.

WeaponShop

localhost:4200/add-weapon

Weapons Home Weapons New Weapon Log Out

Name  
Kar98k

Price  
12000

Manufacturer  
  
Manufacturer is required

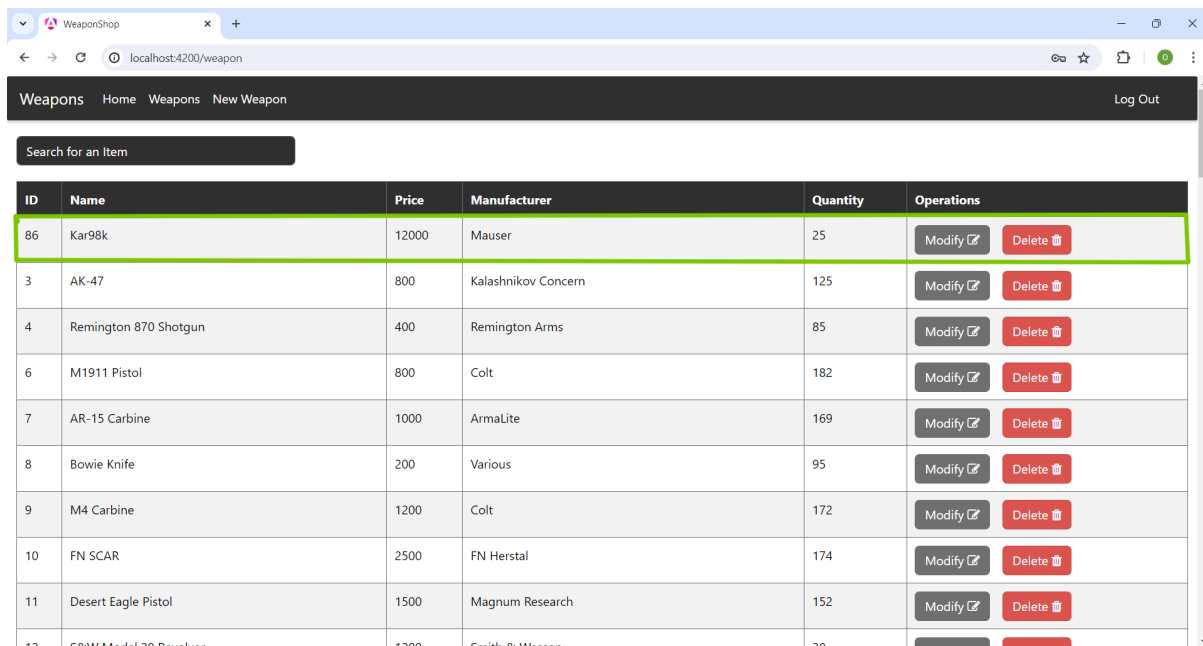
Quantity  
25

Save

Amint a módosítás Formnál itt is ki kell tölteni az összes mezőt helyesen, különben a Save gomb nem lesz aktív.

```
22 export class AddWeaponComponent implements OnInit {
23
24   @Input({ required: true, transform: numberAttribute})
25
26   weaponService = inject(WeaponService);
27
28   weapon$: Observable<Weapon> = of(new Weapon());
29
30   router = inject(Router);
31
32   ngOnInit(): void {
33
34
35   }
36
37   onCreate(weapon: Weapon): void {
38
39     this.weaponService.create(weapon).subscribe(
40       (response) => {
41         console.log('Weapon created successfully:', response);
42
43         this.router.navigateByUrl('/home');
44       },
45       (error) => {
46         console.error('Error creating weapon:', error);
47       }
48     );
49   }
50 }
```

A sikeres kitöltés után, mentjük és visszatrob a Weapon page-re, ahol láthatjuk az új sort.



ID	Name	Price	Manufacturer	Quantity	Operations
86	Kar98k	12000	Mauser	25	<a href="#">Modify</a> <a href="#">Delete</a>
3	AK-47	800	Kalashnikov Concern	125	<a href="#">Modify</a> <a href="#">Delete</a>
4	Remington 870 Shotgun	400	Remington Arms	85	<a href="#">Modify</a> <a href="#">Delete</a>
6	M1911 Pistol	800	Colt	182	<a href="#">Modify</a> <a href="#">Delete</a>
7	AR-15 Carbine	1000	ArmaLite	169	<a href="#">Modify</a> <a href="#">Delete</a>
8	Bowie Knife	200	Various	95	<a href="#">Modify</a> <a href="#">Delete</a>
9	M4 Carbine	1200	Colt	172	<a href="#">Modify</a> <a href="#">Delete</a>
10	FN SCAR	2500	FN Herstal	174	<a href="#">Modify</a> <a href="#">Delete</a>
11	Desert Eagle Pistol	1500	Magnum Research	152	<a href="#">Modify</a> <a href="#">Delete</a>
12	CS&M Model 70 Bowler	1200	Smith & Wesson	30	<a href="#">Modify</a> <a href="#">Delete</a>

Végül a műveletek befejeztével a Navbar-on szereplő LogOut-ra kattintva kilépünka rendszer LogIn page-ére.

## 6. Routing

```

1  import { Routes } from '@angular/router';
2  import { WeaponFormComponent } from '../weapon-form/weapon-form.component';
3  import { WeaponListComponent } from '../weapon-list/weapon-list.component';
4  import { HomeComponent } from '../home/home.component';
5  import { LoginComponent } from '../login/login.component';
6
7  export const routes: Routes = [
8
9      {
10         path: '',
11         component: LoginComponent
12     },
13     ,
14     {
15         path: 'home',
16         component: HomeComponent
17     },
18     ],
19
20     {
21         path: 'weapon',
22         component: WeaponListComponent
23     },
24
25     {
26         path: 'add-weapon',
27         component: WeaponFormComponent
28     },
29
30     {
31         path: 'edit-weapon/:id',
32         component: WeaponFormComponent
33     }
34 ];

```

## 7. Controller

```

3   export abstract class Controller{
40   create = async (req, res) => {
42       try{
43
44           const entity = this.repository.create(req.body as object);
45
46           delete entity.id;
47
48           const saveEntity = await this.repository.save(entity);
49
50           res.json(saveEntity);
51       }catch (err){
52           this.handleError(res,err);
53       }
54   }
55
56   };
57   update = async (req, res) => {
58       .....
59       try{
60           const entity = this.repository.create(req.body as object);
61
62           const currentEntity = await this.repository.findOneBy({ id: entity.id });
63
64           if(!currentEntity){
65               return this.handleError(res, null, 404, 'Entity not found');
66           }
67
68           await this.repository.save(entity);
69
70           res.json(entity);
71       }catch (err){
72           this.handleError(res,err);
73       }
74   }
75
76   };

```