



@ngrx/store – Using HttpClient Directly



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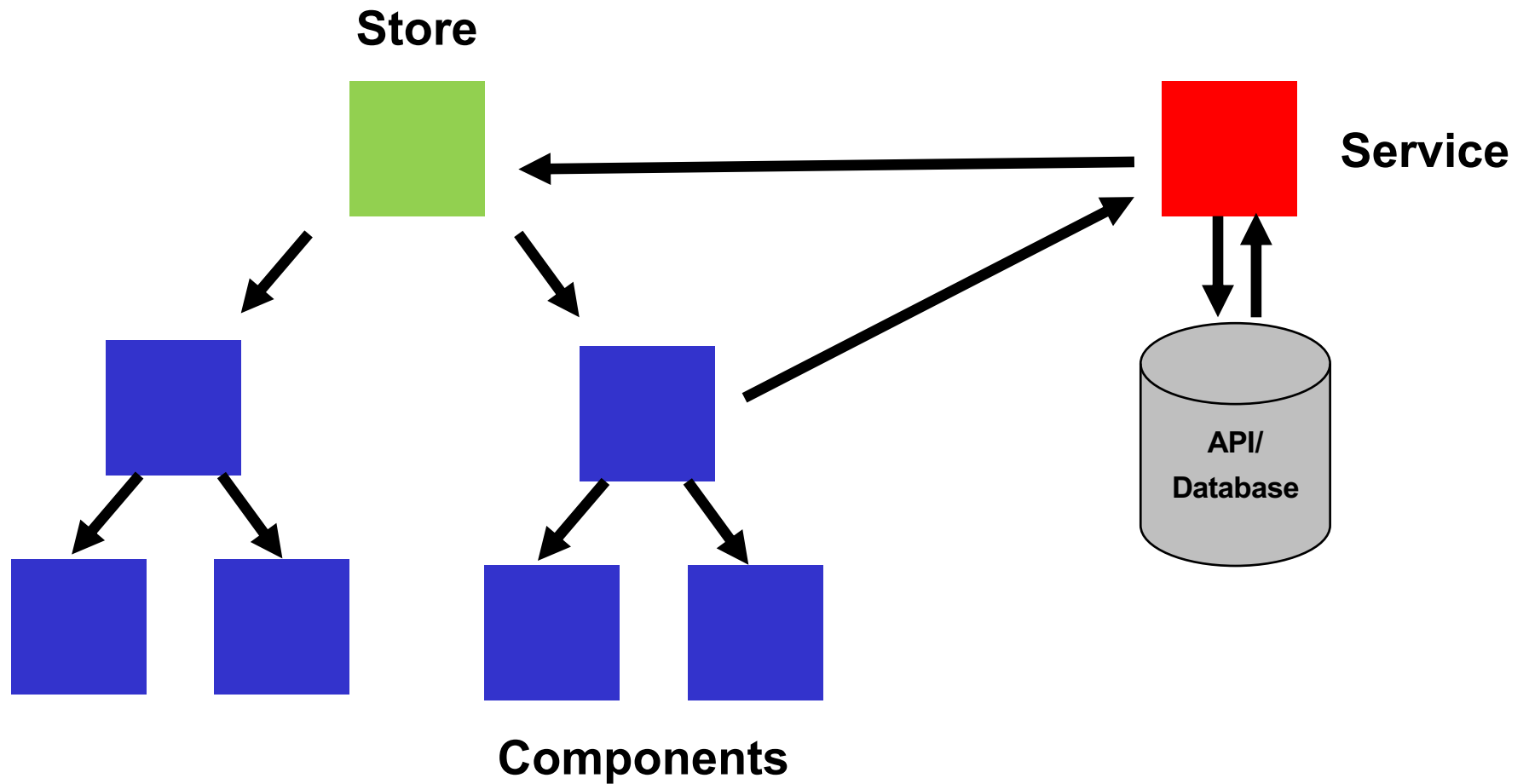


Using http directly

Talking RESTful to real API's – plain and simple!

Architecture

Call API in Service, dispatch to Store, subscribe in Components

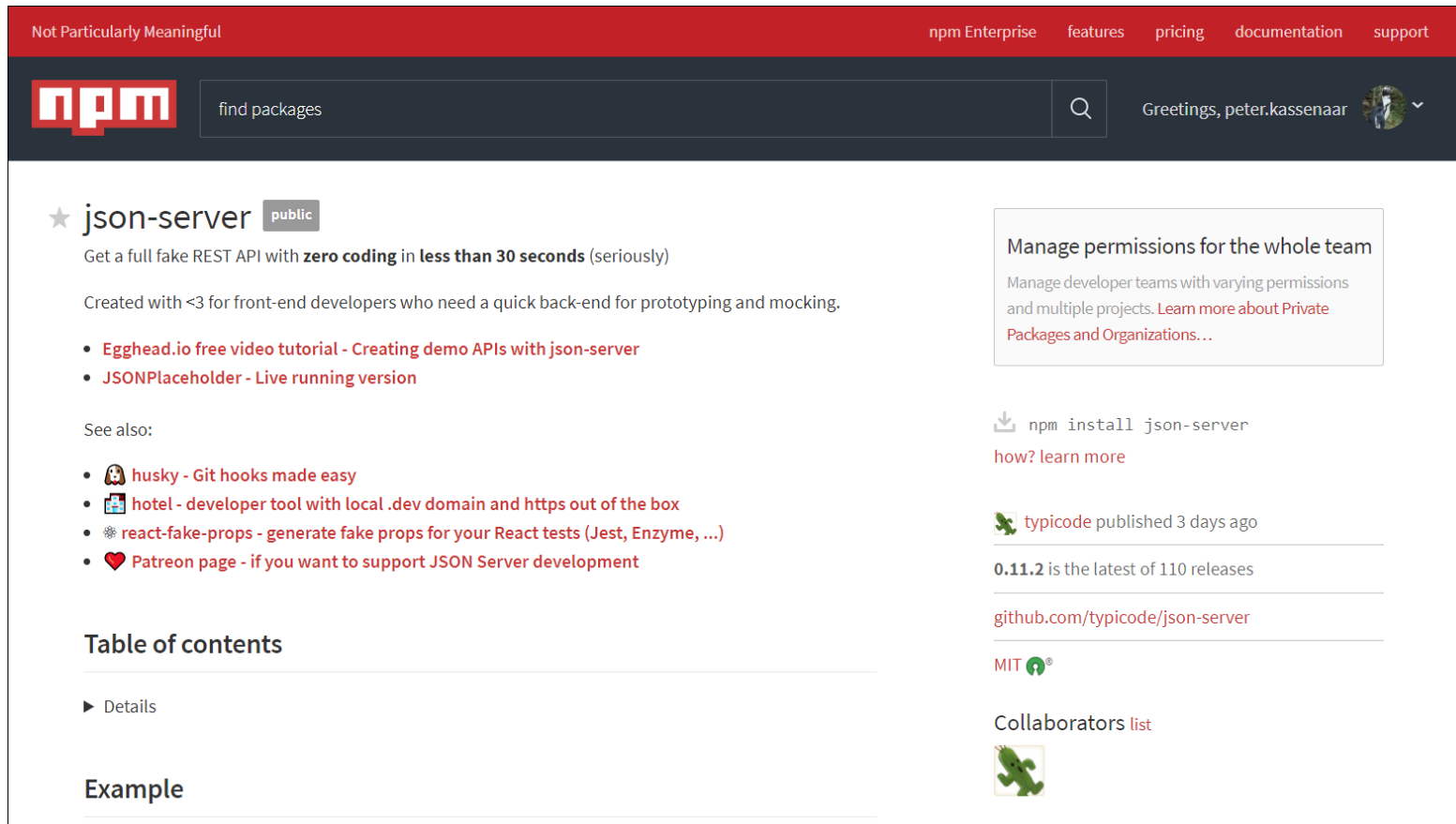


Actions and Reducers

- No changes on Actions, Action Creators and reducers.
- Add a service (if you haven't done so already) that talks to the outside world
- When a result comes back, dispatch the result to the store.

First – add a server

- We're using `json-server` here
- Provides a simple RESTful API, based on `.json`-file in webroot



The screenshot shows the npm website interface. At the top, there's a red navigation bar with links for 'npm Enterprise', 'features', 'pricing', 'documentation', and 'support'. Below this is a dark blue header with the 'npm' logo, a search bar labeled 'find packages', and a user profile for 'Greetings, peter.kassenaar'. The main content area displays the 'json-server' package page. It includes a star icon, the package name 'json-server' with a 'public' tag, and a description: 'Get a full fake REST API with **zero coding** in **less than 30 seconds** (seriously)'. It also mentions it was 'Created with <3 for front-end developers who need a quick back-end for prototyping and mocking.' There are two links: 'Egghead.io free video tutorial - Creating demo APIs with json-server' and 'JSONPlaceholder - Live running version'. A 'See also:' section lists 'husky - Git hooks made easy', 'hotel - developer tool with local .dev domain and https out of the box', 'react-fake-props - generate fake props for your React tests (Jest, Enzyme, ...)', and 'Patreon page - if you want to support JSON Server development'. A 'Table of contents' section has a 'Details' link. An 'Example' section is partially visible. On the right, there's a 'Manage permissions for the whole team' box, a command 'npm install json-server' with a 'how? learn more' link, and information about the latest version '0.11.2' published 3 days ago, with a link to 'github.com/typicode/json-server'. It also shows the MIT license and a 'Collaborators list' with a small green lizard icon.

<https://www.npmjs.com/package/json-server>

Add HttpClientModule to application

- Update `app.module.ts` and `city.service.ts`
- Since we're using services, the HTML and Component are unaltered
- Angular 5+ : use `HttpClientModule`, of course

```
import {http[Client]Module} from '@angular/[common]/http';  
...  
  
@NgModule({  
  ...  
  imports      : [  
    http[Client]Module,  
  ],  
  ...  
})
```

Edit city.service.ts

Add `Http` and call API in `loadCities()`.

Upon subscription, dispatch data to the store

```
const BASE_URL = 'http://localhost:3000/cities';
const HEADERS  = {headers: new HttpHeaders().set('Content-Type', 'application/json')};

@Injectable()
export class CityService {

  constructor(private store: Store<AppState>,
               private http: HttpClient) {
    this.loadCities();
  }

  loadCities() {
    return this.http.get(BASE_URL).pipe(
      tap(res => console.log('just received', res))
    ).subscribe(cities => this.store.dispatch(new fromActions.LoadCities(cities)),
      err => console.log('Error: start json-server '),
      () => console.log('Getting cities complete'))
  }
}
```

Adding and deleting cities

- Same procedure...

// add a city to the store

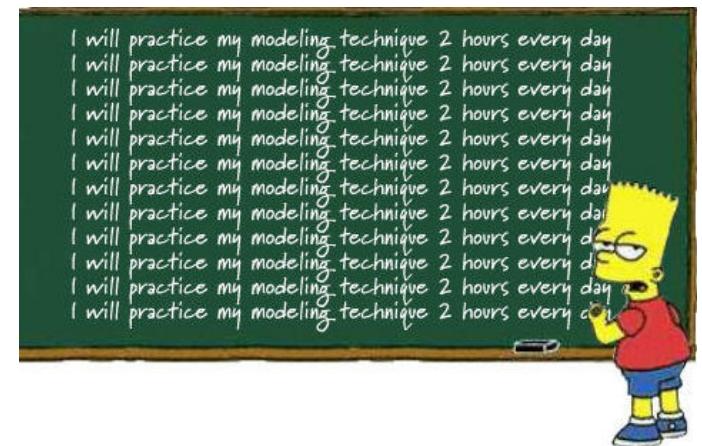
```
addCity(city: City): void {  
    this.http.post(BASE_URL, JSON.stringify(city), HEADERS)  
        .subscribe(payload =>  
            this.store.dispatch(new fromActions.AddCity(payload)));  
}
```

// Remove city from store

```
removeCity(city: City) {  
    this.http.delete(`${BASE_URL}/${city.id}`)  
        .subscribe(action =>  
            this.store.dispatch(new fromActions.RemoveCity(city)));  
}
```


Workshop

- Use your own app, add a service and call HTTP to load .json-data
- OR: Start from `../220-ngrx-store-http`
- Make yourself familiar with the store concepts and http-flow. Study the example code.
- Add the `addCity()` method on the service, that adds a city to the .json file via json-server
- Add the `editCity()` method on the service, to edit an existing city



Next Steps

- [@ngrx/effects](#) - Side Effect model for @ngrx/store to model event sources as actions.
- [@ngrx/router-store](#) - Bindings to connect the Angular Router to @ngrx/store
- [@ngrx/store-devtools](#) - Store instrumentation that enables a powerful time-travelling debugger
- [@ngrx/entity](#) - Entity State adapter for managing record collections.

<https://github.com/ngrx/platform>