

Angular Fundamentals

day 3 - Short recap

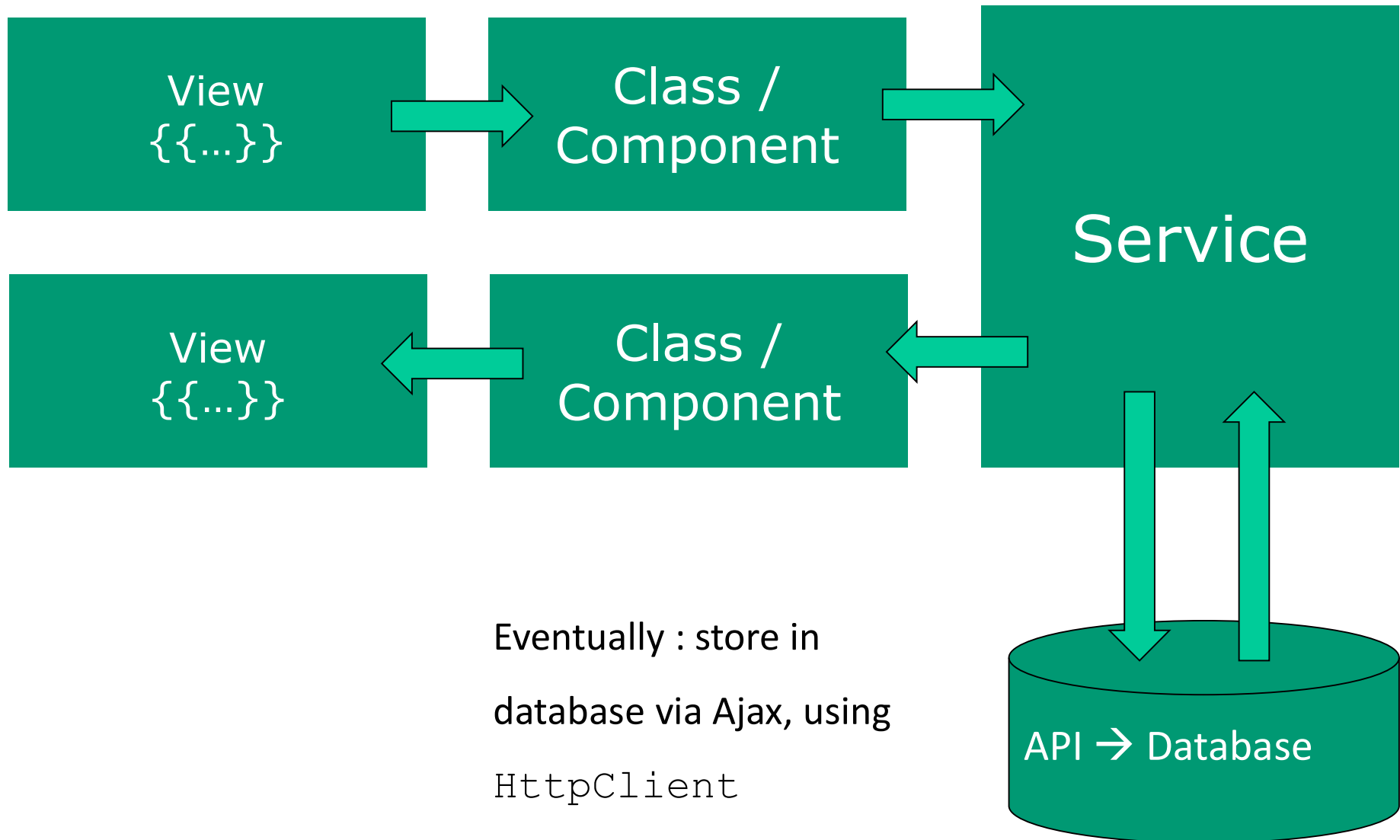


Peter Kassenaar –
info@kassenaar.com

Yesterday

- Data binding (continued)
 - Attribute binding [...]
 - Two-way Data Binding [(ngModel)]
- Services
 - Static Services
 - RxJS / Observables
 - Live API's – Movie API, RestCountries API
- Component Communication - @Input()

Services with multiple components



Main concept:

Dependency Injection

Angular http-calls

Initial Output

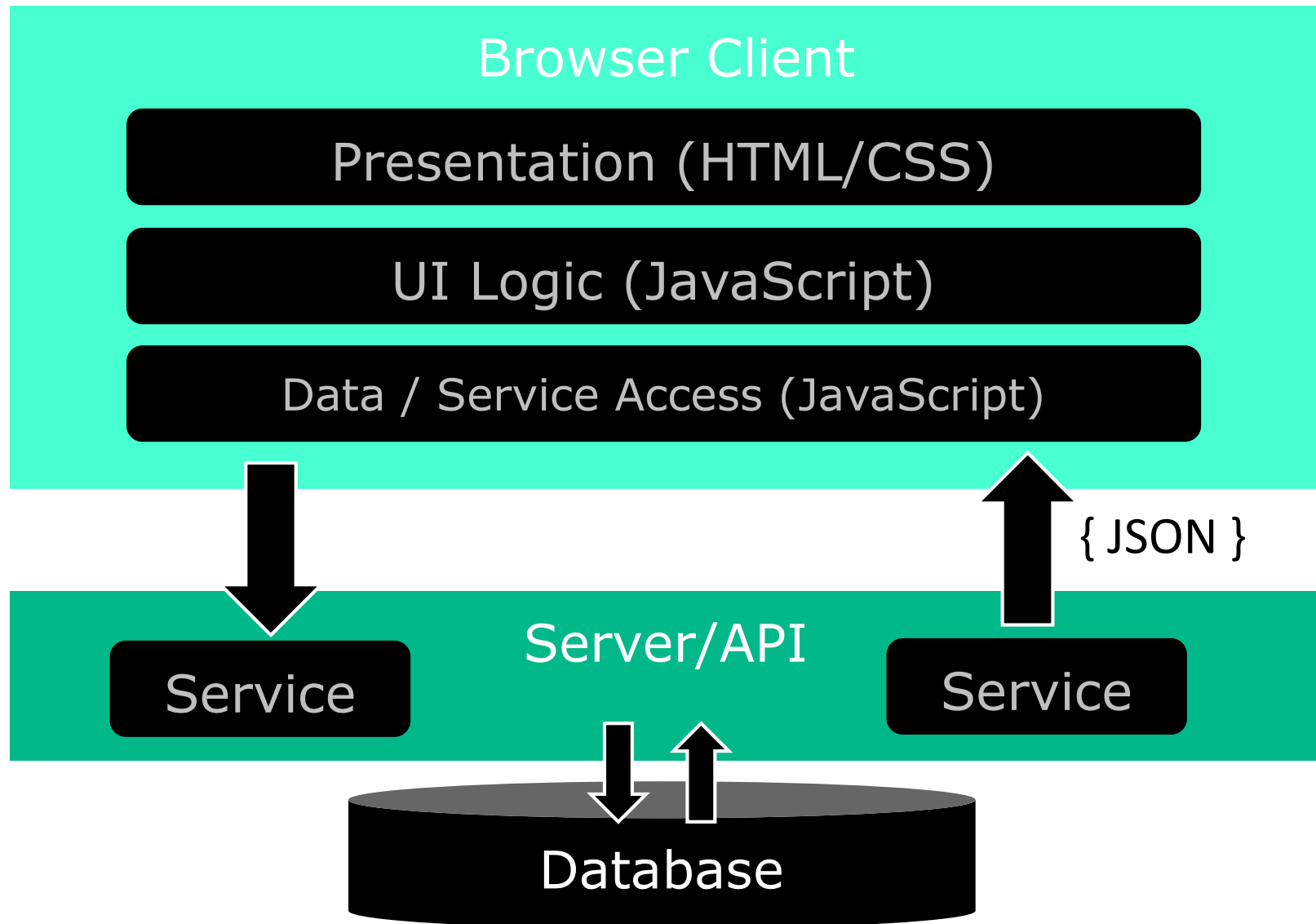
```
this.http.get<City[]>( 'assets/data/cities.json' )  
  .pipe(  
    filter(...),  
    map(...)  
  )  
  .subscribe((result) => {  
    //... Do something  
  });
```

Optional:
operator(s)

Final Input

Single Page Application

2010 – 20??



Main concept:

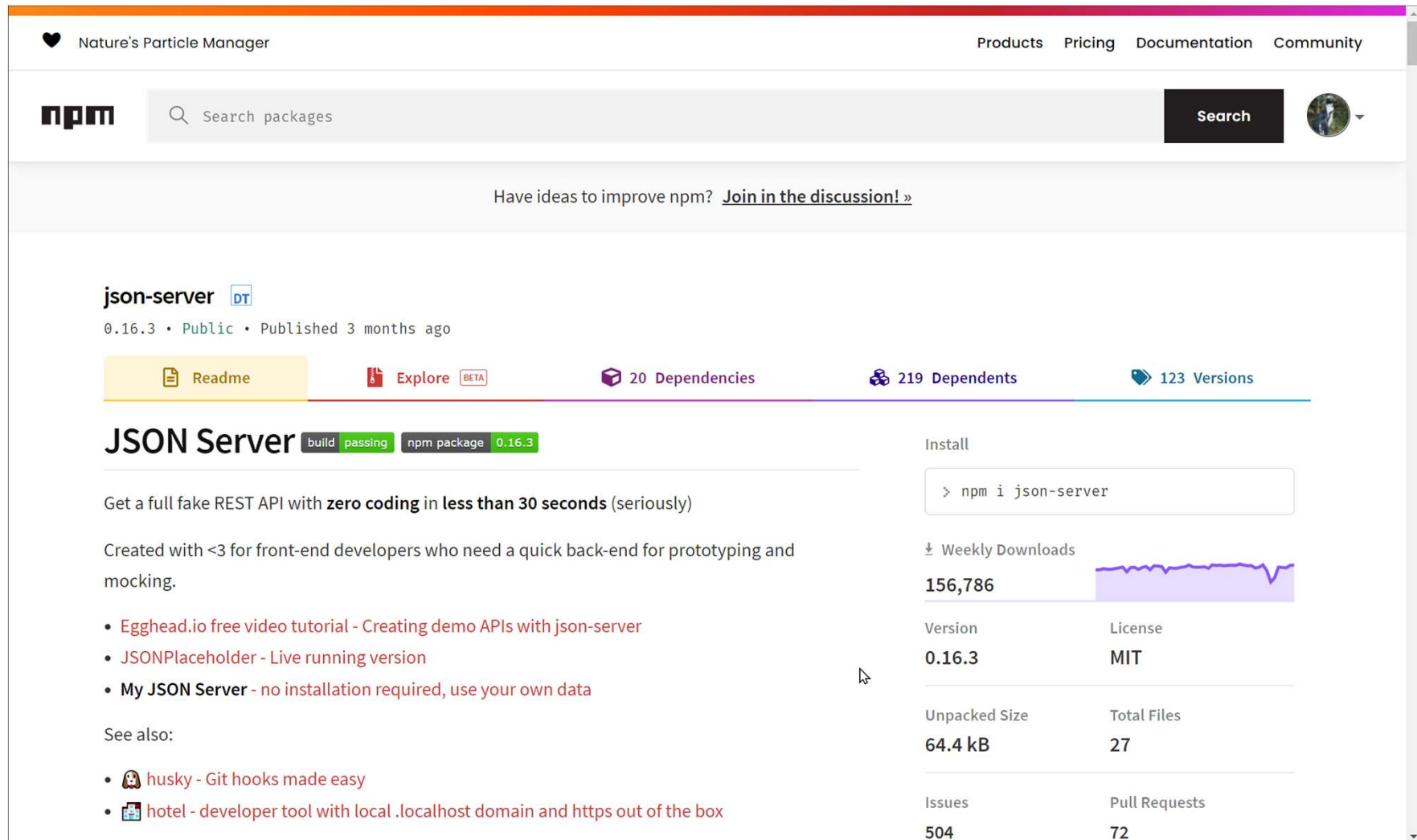
*Communicating
via Http*

POST-ing data to an API (and 'real' CRUD)

- `examples\205-services-http-crud`



Json-server documentation



The screenshot shows the npm package page for **json-server**. At the top, there's a navigation bar with links for Products, Pricing, Documentation, and Community. Below this is a search bar with the npm logo and a search button. A banner below the search bar asks for ideas to improve npm. The main section for **json-server** shows its version (0.16.3), public status, and publication date. It includes links to the README, Explore (Beta), Dependencies (20), Dependents (219), and Versions (123). The package description states it's a full fake REST API with zero coding in less than 30 seconds. It also lists several resources like a video tutorial, a live running version, and a developer tool. On the right, there's an 'Install' section with a terminal command, a 'Weekly Downloads' graph showing 156,786 downloads, and a table with package details.

Version	License
0.16.3	MIT

Unpacked Size	Total Files
64.4 kB	27

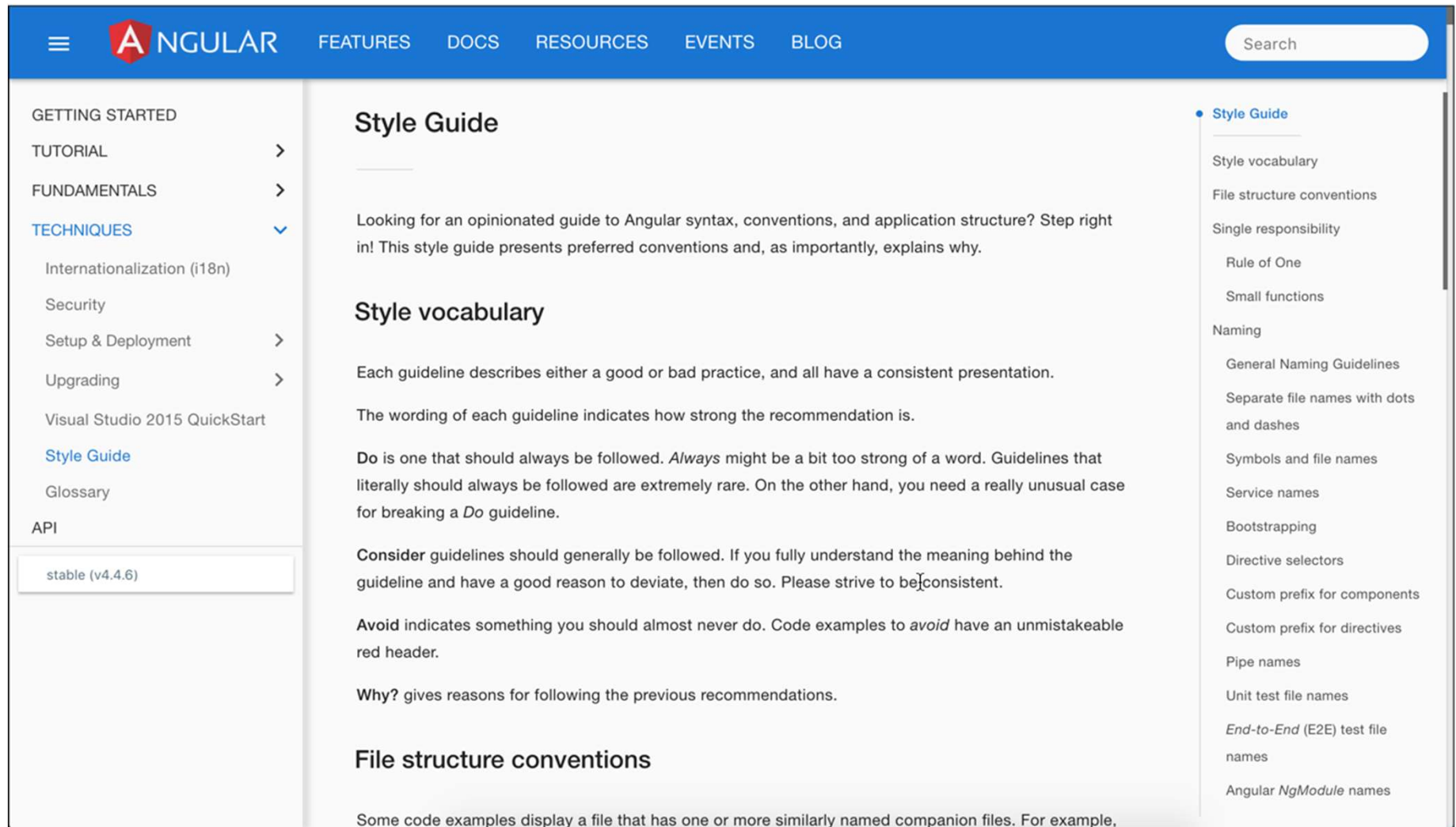
Issues	Pull Requests
504	72

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

Other question?

Questions?

Angular Style Guide



The screenshot shows the Angular Style Guide page. The top navigation bar is blue with the Angular logo and links to FEATURES, DOCS, RESOURCES, EVENTS, and BLOG. A search bar is on the right. The left sidebar contains a list of categories: GETTING STARTED, TUTORIAL, FUNDAMENTALS, TECHNIQUES (highlighted with a blue checkmark), Internationalization (i18n), Security, Setup & Deployment, Upgrading, Visual Studio 2015 QuickStart, Style Guide (highlighted with a blue dot), Glossary, and API. Below the API link is a box labeled 'stable (v4.4.6)'. The main content area has the title 'Style Guide' and a paragraph: 'Looking for an opinionated guide to Angular syntax, conventions, and application structure? Step right in! This style guide presents preferred conventions and, as importantly, explains why.' Below this is the section 'Style vocabulary' with three paragraphs: 'Each guideline describes either a good or bad practice, and all have a consistent presentation.', 'The wording of each guideline indicates how strong the recommendation is.', and 'Do is one that should always be followed. Always might be a bit too strong of a word. Guidelines that literally should always be followed are extremely rare. On the other hand, you need a really unusual case for breaking a Do guideline.' This is followed by a paragraph about 'Consider' guidelines and another about 'Avoid' guidelines. The section 'File structure conventions' begins with a paragraph about companion files. The right sidebar contains a list of links: Style Guide (highlighted), Style vocabulary, File structure conventions, Single responsibility, Rule of One, Small functions, Naming, General Naming Guidelines, Separate file names with dots and dashes, Symbols and file names, Service names, Bootstrapping, Directive selectors, Custom prefix for components, Custom prefix for directives, Pipe names, Unit test file names, End-to-End (E2E) test file names, and Angular NgModule names.

ANGULAR FEATURES DOCS RESOURCES EVENTS BLOG Search

GETTING STARTED
TUTORIAL >
FUNDAMENTALS >
TECHNIQUES ✓
Internationalization (i18n)
Security
Setup & Deployment >
Upgrading >
Visual Studio 2015 QuickStart
Style Guide
Glossary
API
stable (v4.4.6)

Style Guide

Looking for an opinionated guide to Angular syntax, conventions, and application structure? Step right in! This style guide presents preferred conventions and, as importantly, explains why.

Style vocabulary

Each guideline describes either a good or bad practice, and all have a consistent presentation.

The wording of each guideline indicates how strong the recommendation is.

Do is one that should always be followed. *Always* might be a bit too strong of a word. Guidelines that literally should always be followed are extremely rare. On the other hand, you need a really unusual case for breaking a *Do* guideline.

Consider guidelines should generally be followed. If you fully understand the meaning behind the guideline and have a good reason to deviate, then do so. Please strive to be consistent.

Avoid indicates something you should almost never do. Code examples to *avoid* have an unmistakeable red header.

Why? gives reasons for following the previous recommendations.

File structure conventions

Some code examples display a file that has one or more similarly named companion files. For example,

- Style Guide
- Style vocabulary
- File structure conventions
- Single responsibility
- Rule of One
- Small functions
- Naming
 - General Naming Guidelines
 - Separate file names with dots and dashes
 - Symbols and file names
 - Service names
 - Bootstrapping
 - Directive selectors
 - Custom prefix for components
 - Custom prefix for directives
 - Pipe names
 - Unit test file names
 - End-to-End (E2E) test file names
 - Angular *NgModule* names

<https://angular.io/guide/styleguide>

Today

- Component Communication using `@Input()` and `@Output()`
- Writing an Event bus using `Subject<Type>`
- Routing
- Forms
 - Template driven Forms
 - Reactive Forms

Angular – Next Steps, Advanced

- Working with **Multiple Modules**, lazy loading
- Advanced **Routing**
 - Routing **guards**, multiple router outlets
- Advanced **components**
 - Design patterns
- Angular **in the enterprise**
 - Creating Angular **Libraries** / monorepos
- **Unit Testing** - E2E Testing
- Introduction - **State Management** with @ngrx/store

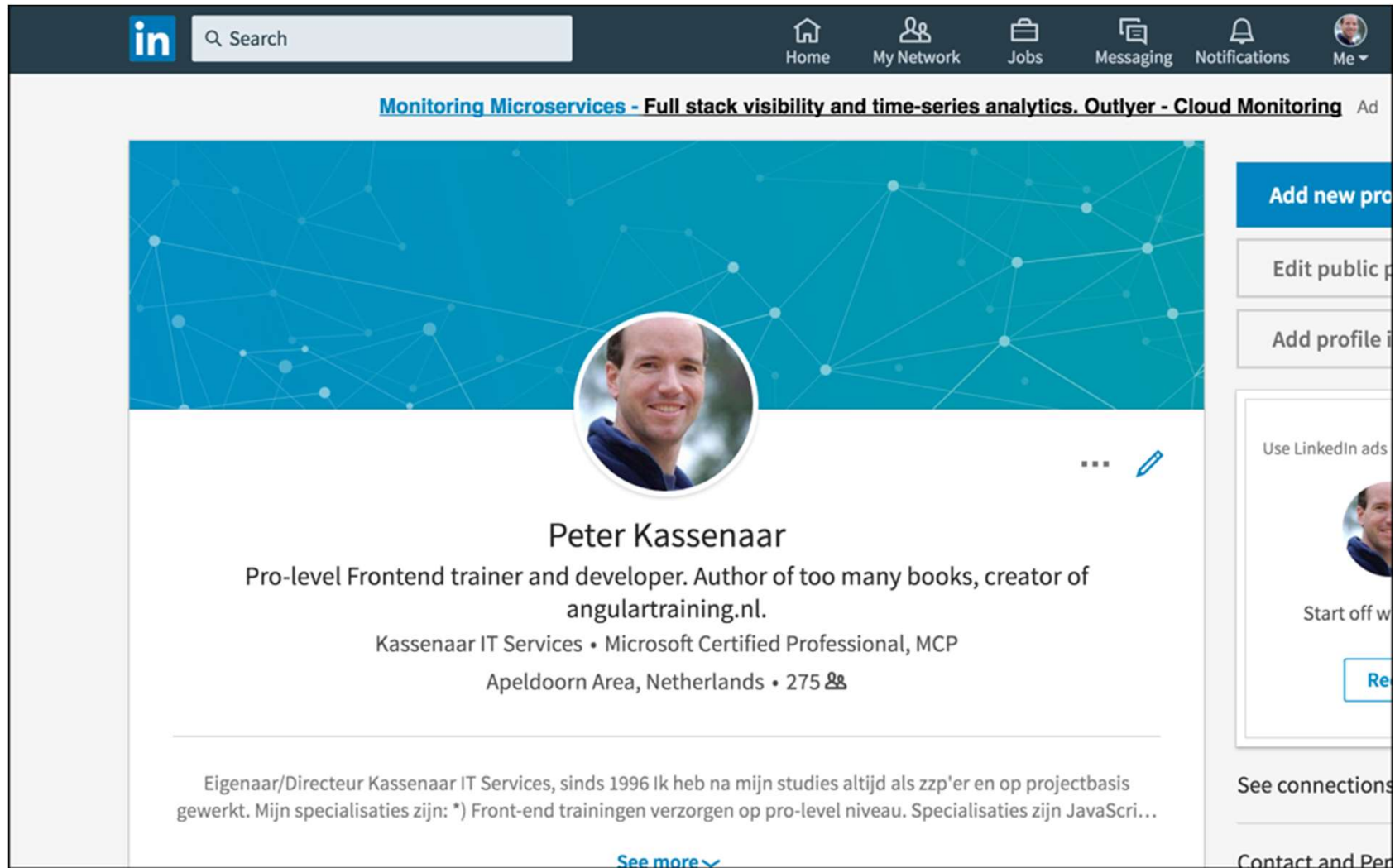
Have we reached our Goals?

1. You *will* learn about the **structure and architecture** of Angular Apps.
From a small hello-world app to the largest enterprise applications.
2. You are familiar with the **main Angular concepts** of the framework.
You can always google the code details yourself.
3. You will have **some hands-on experience** regarding creating apps and components, services, API's/backends, security concepts, routing and forms.
4. You will have a **general understanding** of the way modern web apps are created using Angular, TypeScript and build tools.

General concepts

- Introduction & short history – Why Angular?
- Key features of Angular 2 to 10
- boilerplate-code – CLI – file structure
- More Angular concepts:
 - Components
 - Data binding (4 types)
 - Dependency Injection (DI)
 - Services and Http,
 - Observables (RxJS), working with backend/API's
 - Component communication
 - Routing, [Reactive] Forms

Let's keep in touch



The image is a screenshot of a LinkedIn profile page for Peter Kassenaar. The top navigation bar includes the LinkedIn logo, a search bar, and icons for Home, My Network, Jobs, Messaging, Notifications, and a profile dropdown. Below the navigation bar, there is a banner for 'Monitoring Microservices' with the text 'Full stack visibility and time-series analytics. Outlier - Cloud Monitoring'. The profile section features a circular profile picture of Peter Kassenaar, a blue background with a network pattern, and his name 'Peter Kassenaar'. Below the name, it states 'Pro-level Frontend trainer and developer. Author of too many books, creator of angulartraining.nl.' and 'Kassenaar IT Services • Microsoft Certified Professional, MCP'. The location is 'Apeldoorn Area, Netherlands • 275 28'. A bio section at the bottom reads: 'Eigenaar/Directeur Kassenaar IT Services, sinds 1996 Ik heb na mijn studies altijd als zzp'er en op projectbasis gewerkt. Mijn specialisaties zijn: *) Front-end trainingen verzorgen op pro-level niveau. Specialisaties zijn JavaScri...'. To the right of the profile, there are buttons for 'Add new pro', 'Edit public p', 'Add profile i', and a section for 'Use LinkedIn ads' with a 'Start off w' button. At the bottom right, there are links for 'See connections' and 'Contact and Per'.

Monitoring Microservices - Full stack visibility and time-series analytics. Outlier - Cloud Monitoring Ad

Peter Kassenaar
Pro-level Frontend trainer and developer. Author of too many books, creator of angulartraining.nl.
Kassenaar IT Services • Microsoft Certified Professional, MCP
Apeldoorn Area, Netherlands • 275 28

Eigenaar/Directeur Kassenaar IT Services, sinds 1996 Ik heb na mijn studies altijd als zzp'er en op projectbasis gewerkt. Mijn specialisaties zijn: *) Front-end trainingen verzorgen op pro-level niveau. Specialisaties zijn JavaScri...

[See more](#)

Add new pro
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<https://www.linkedin.com/in/peterkassenaar/>

If you liked it, endorse

The screenshot shows a LinkedIn profile page. The top navigation bar includes the LinkedIn logo, a search bar, and icons for Home, My Network (with a red notification badge), Jobs, Messaging, Notifications, Me, and Work. The main content area on the left shows a section for education with the text 'duursporten (lopen, zwemmen, fietsen, roeien, schaatsen). Laatste jaar in combinatie met studie Bewegingswetenschappen, Rijksuniversiteit Groningen (RUG).'. Below this is a blue button labeled 'Add new profile section'. The 'Featured Skills & Endorsements' section is circled in red and contains three skills: 'Teaching' (3 endorsements from 'Youri Pattynama and 2 connections'), 'TypeScript' (3 endorsements from 'Youri Pattynama and 2 connections'), and 'Angular' (2 endorsements from 'Momen El Kamri and 1 connection'). A link 'See 26 more skills' is at the bottom of this section. Below the skills section is a 'Recommendations' section with a link 'Ask to be recommended'. On the right side, there is a 'Messaging' button and a settings icon.

duursporten (lopen, zwemmen, fietsen, roeien, schaatsen).
Laatste jaar in combinatie met studie Bewegingswetenschappen, Rijksuniversiteit Groningen (RUG).
[See more education](#)

Featured Skills & Endorsements [Add a new skill](#)

Teaching · 3 Youri Pattynama and 2 connections have given endorsements for this skill

TypeScript · 3 Youri Pattynama and 2 connections have given endorsements for this skill

Angular · 2 Momen El Kamri and 1 connection have given endorsements for this skill

[See 26 more skills](#)

Recommendations [Ask to be recommended](#)

[Messaging](#)

<https://www.linkedin.com/in/peterkassenaar/>

The image is a screenshot of the Angulartraining.nl website. At the top left, the URL 'Angulartraining.nl' is visible. A navigation bar contains links for 'Home', 'Training', 'Dates', 'Information', and 'Contact'. The background features a dark-themed code editor with TypeScript code for Angular routing. A large, white, diagonal watermark reading 'Thank you' is overlaid across the center. In the top right corner, an orange banner states '2018 dates now available!'. Below the watermark, the text 'World-class Angular training in Dutch and English' is displayed, followed by 'Live classrooms - focused on today's developers'. At the bottom, there are two buttons: 'LEARN MORE' (teal) and 'SIGN UP!' (blue).

Angulartraining.nl

Home Training Dates Information Contact

2018 dates now available!

World-class Angular training in Dutch and English

Live classrooms - focused on today's developers

LEARN MORE SIGN UP!

www.angulartraining.nl