Angular learning sources

Quellen

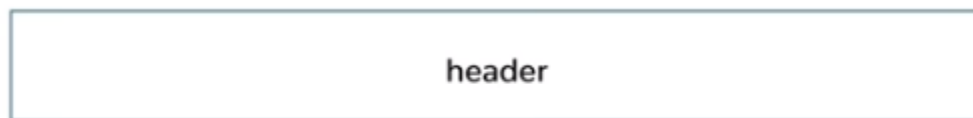https://angular.io/resources?category=development -> IDEA ideas and tooling suggestions

https://chrome.google.com/webstore/detail/augury/elgalmkoelokbchhkhacckoklkejnhcd/related -> Chrome extention for debugging

https://angular.io/ -> getting started

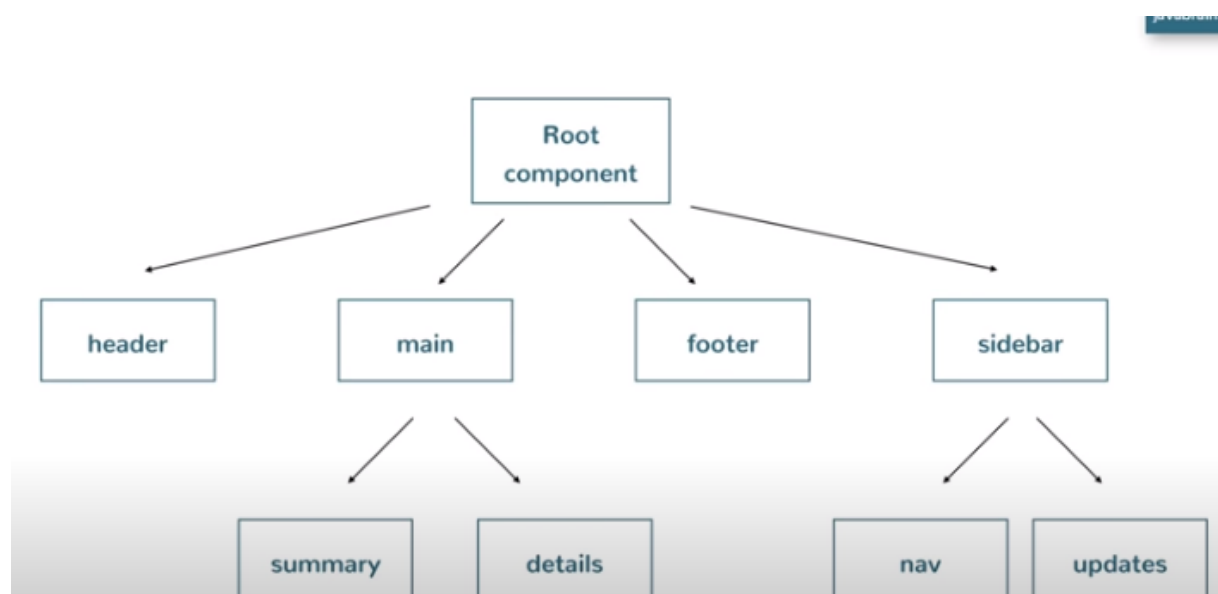Youtube Playlist of Java Brains: [link]

Component Based Model

Für normal wird bei einer normalen Website ein HTML mit JS geladen, welches dann das DOM manipuliert. In Angular ist das anders. Angular ist auf Components basiert -> z.b. Header, Footer sind nun Components. Jeder Angular-Applikation hat einen Root-Component welche die hauptcomponents hält.

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Where to start? Angular CLI

```
Valentin@ValentinHörziPc MINGW64 /d/temp/Angular1 (master)
$ ng new ServiceFrontend
```

📁 e2e	23.04.2020 11:28	Dateiordner	
📁 src	23.04.2020 11:28	Dateiordner	
.editorconfig	23.04.2020 11:28	EDITORCONFIG-D...	1 KB
.gitignore	23.04.2020 11:28	Textdokument	1 KB
angular.json	23.04.2020 11:28	JSON-Datei	4 KB
package.json	23.04.2020 11:28	JSON-Datei	2 KB
README.md	23.04.2020 11:28	MD-Datei	2 KB
tsconfig.json	23.04.2020 11:28	JSON-Datei	1 KB
tslint.json	23.04.2020 11:28	JSON-Datei	3 KB

Dann erstmal schön npm update und install -> Dann ng serve

Create component -> ng generate component [name]

Reference member-variables:
```html
<p>service-component works! {{message}}</p>
```

```typescript
export class ServiceComponentComponent implements OnInit {

message : string ="hello";

  constructor() { }

  ngOnInit(): void {
  }

}
```

Data binding in Angular refers to binding the data in the component instance tot he HTML template. Any changes tot he data automatically gets updated in the view!

{{}} = Interpolation. Angular looks at it as something that needs to be evaluated. Can also be function
```
{{addTwoNumbers(1,6)}}
```

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```typescript
export class ServiceComponentComponent implements OnInit {

  dateMessage : string;

  constructor() {
    setInterval(() => {
      let currentDate = new Date();
      this.dateMessage = currentDate.toDateString() + ' ' + currentDate.toLocaleTimeString();
    }, 1000);}

  ngOnInit(): void {
  }

  addTwoNumbers(a : number,b : number){
    return a+b;
  }

}
```

For loop:

```typescript
user: any;

constructor() {
  this.user = {
    name : 'Foo Bar',
    title : 'Software Developer',
    address : '1234 Main St. City, State, 100010',
    phone: [
        '123-456-678',
        '123-456-678',
        '123-456-678',
        '123-456-678',
        '123-456-678',
        '123-456-678',
        '123-456-678',
        '123-456-678',
    ]
  };
}
```

```html
<div>
  <h1>{{user.name}}</h1>
  <h3>{{user.title}}</h3>
  <p>{{user.address}}</p>
  <div>
    <p>Phone</p>
    <p *ngFor="let phoneNumber of user.phone">{{phoneNumber}}</p>
  </div>
</div>
```

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Foo Bar

Software Developer

1234 Main St. City, State, 100010

Phone

123-456-678

123-456-678

123-456-678

123-456-678
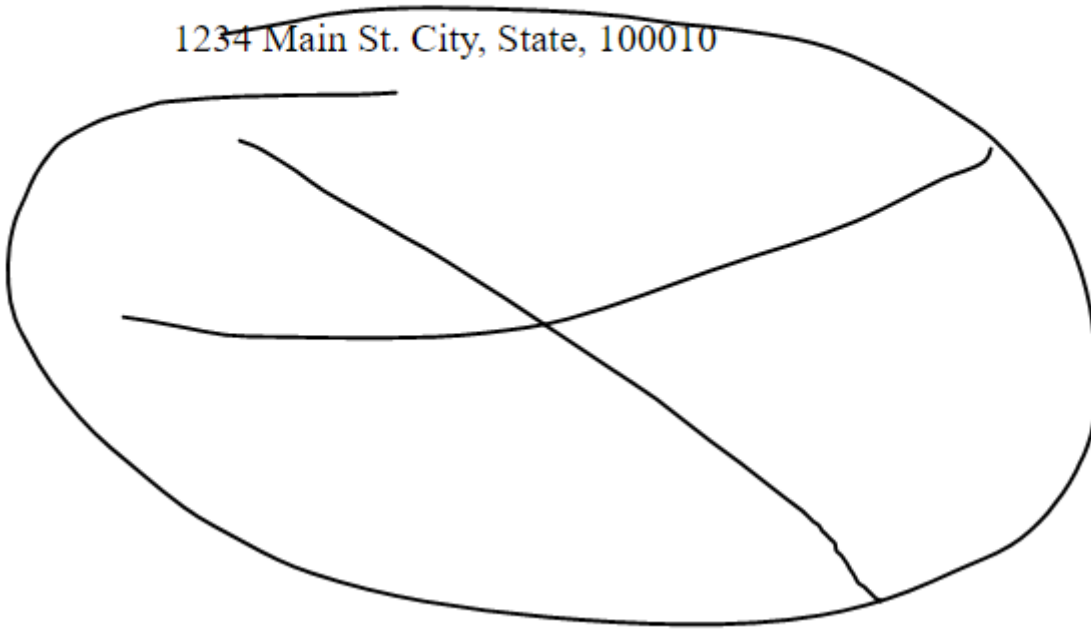
123-456-678

123-456-678

123-456-678

123-456-678

*ngIf

```html
<div *ngIf="user.phone.length > 0">
  <p>Phone</p>
  <p *ngFor="let phoneNumber of user.phone">{{phoneNumber}}</p>
</div>
```

```javascript
this.user = {
  name : 'Foo Bar',
  title : 'Software Developer',
  address : '1234 Main St. City, State, 100010',
  phone: [

  ]
};
```

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Foo Bar

Software Developer

1234 Main St. City, State, 100010

Pass Values via HTML

```
<app-service-component name="SomeName"></app-service-component>
```
(KA wieso ds rot is, it still works)

```typescript
@Input('name') userName: string;

constructor() {

}

ngOnInit(): void {

  this.user = {
    name: this.userName,
    title: 'Software Developer',
    address: '1234 Main St. City, State, 100010',
    phone: [],
  };

}
```

Click event:

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```
toggleCollapse(): void {
  this.isCollapsed = !this.isCollapsed;
}
```

```
<button *ngIf="isCollapsed" (click)="toggleCollapse()">Expand</button>
<button *ngIf="!isCollapsed" (click)="toggleCollapse()">Collapse</button>
```

2-way databinding:

```
<input type="text" [(ngModel)]="inputText">
{{inputText}}
```

```
inputText: string = "Initial Value";
```

| Initial Value | Initial Value |

| Initial Valuees | Initial Valuees |

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';
import {FormsModule} from '@angular/forms';

import { AppComponent } from './app.component';
import { ServiceComponentComponent } from './service-component/service-component.component';

@NgModule({
  declarations: [
    AppComponent,
    ServiceComponentComponent
  ],
  imports: [
    BrowserModule,
    FormsModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

Get Request:

```
getsth() :void{
  this.http.get('https://api.github.com/users/ValentinHoerzi')
  .subscribe((response)=> console.log(response));
}
```

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```
import {HttpClientModule} from '@angular/common/http'

import { AppComponent } from './app.component';
import { ServiceComponentComponent } from './service-component/service-component.component';
import { LogicService } from './logic.service';

@NgModule({
  declarations: [
    AppComponent,
    ServiceComponentComponent
  ],
  imports: [
    BrowserModule,
    FormsModule,
    HttpClientModule
  ],
```

```
constructor(private http: HttpClient) {}
```

Production:

```
$ ng build --prod
Generating ES5 bundles for differential loading...
ES5 bundle generation complete.

chunk {0} runtime-es2015.1eba213af0b233498d9d.js (runtime) 1.45 kB [entry] [rendered]
chunk {0} runtime-es5.1eba213af0b233498d9d.js (runtime) 1.45 kB [entry] [rendered]
chunk {2} polyfills-es2015.690002c25ea8557bb4b0.js (polyfills) 36.1 kB [initial] [rendered]
chunk {3} polyfills-es5.1fd9b76218eca8053895.js (polyfills-es5) 129 kB [initial] [rendered]
chunk {1} main-es2015.b1d4e708107711c40e82.js (main) 179 kB [initial] [rendered]
chunk {1} main-es5.b1d4e708107711c40e82.js (main) 216 kB [initial] [rendered]
chunk {4} styles.3ff695c00d717f2d2a11.css (styles) 0 bytes [initial] [rendered]
Date: 2020-04-27T11:10:25.778Z - Hash: 73a26a4ee880816c9ae7 - Time: 43291ms


Valentin@ValentinHörziPc MINGW64 /d/temp/Angular1/angularproject (vali)
$ http-server dist/angularproject/
Starting up http-server, serving dist/angularproject/
Available on:
  http://169.254.99.14:8080
```

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