How Much Magic Is In Angular2?

By Rodric Haddad

@rodyhaddad

How Much Magic Is In Angular2?

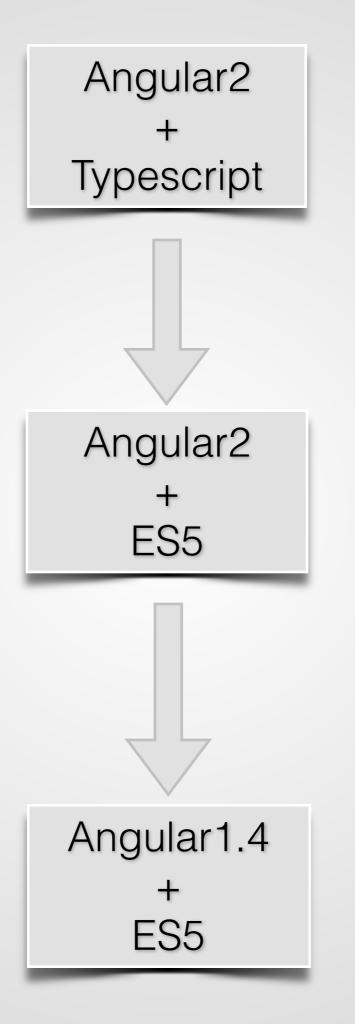
By Rodric Haddad

@rodyhaddad

Demo

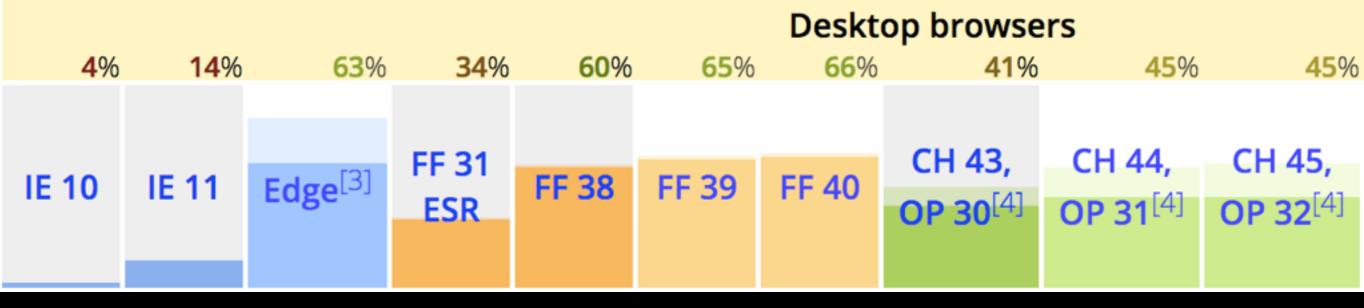
Let's build it!





TypeScript

ES6 + Types + Annotations



https://kangax.github.io/compat-table/es6/

1.4.0-beta.5/1.4.0-beta.6/1.4.0 - rc.0/1.4.0 - rc.1/1.4.0 - rc.2/1.4.0/ 2.0.0-alpha.19/ 2.0.0-alpha.20/ 2.0.0-alpha.22/ 2.0.0-alpha.23/ <u>2.0.0-alpha.24/</u> 2.0.0-alpha.25/ 2.0.0-alpha.26/

Index of /2.0.0-alpha.26/

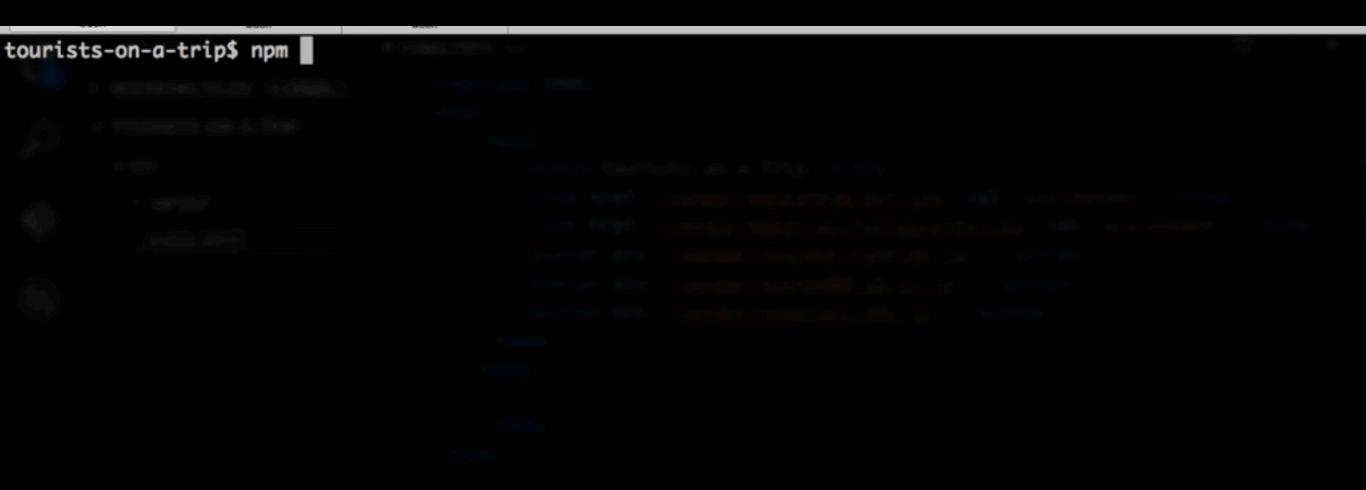
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angular2.dev.js
angular2.js
angular2.min.js
angular2.sfx.dev.js
router.dev.js
router.dev.js.map

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•	index.html	5 <script src="/vendor/traceur-runtime.js"><%script></td><td></td><td></td></tr><tr><td>•</td><td></td><td><pre>6 <script src="/vendor/system@0.16.11.js"></script>		
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tourists-on-a-trip\$ npm install socket.io --save

tourists-on-a-trip\$ tsd query es6-promise rx rx-lite angular2 socket.io-client --action install --save

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 - ▹ node_modules
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 - ▷ vendor

index.html

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- ▷ angular2
- ▹ es6-promise
- ⊳rx
- ▹ socket.io-client
 - tsd.d.ts
- tsd.json



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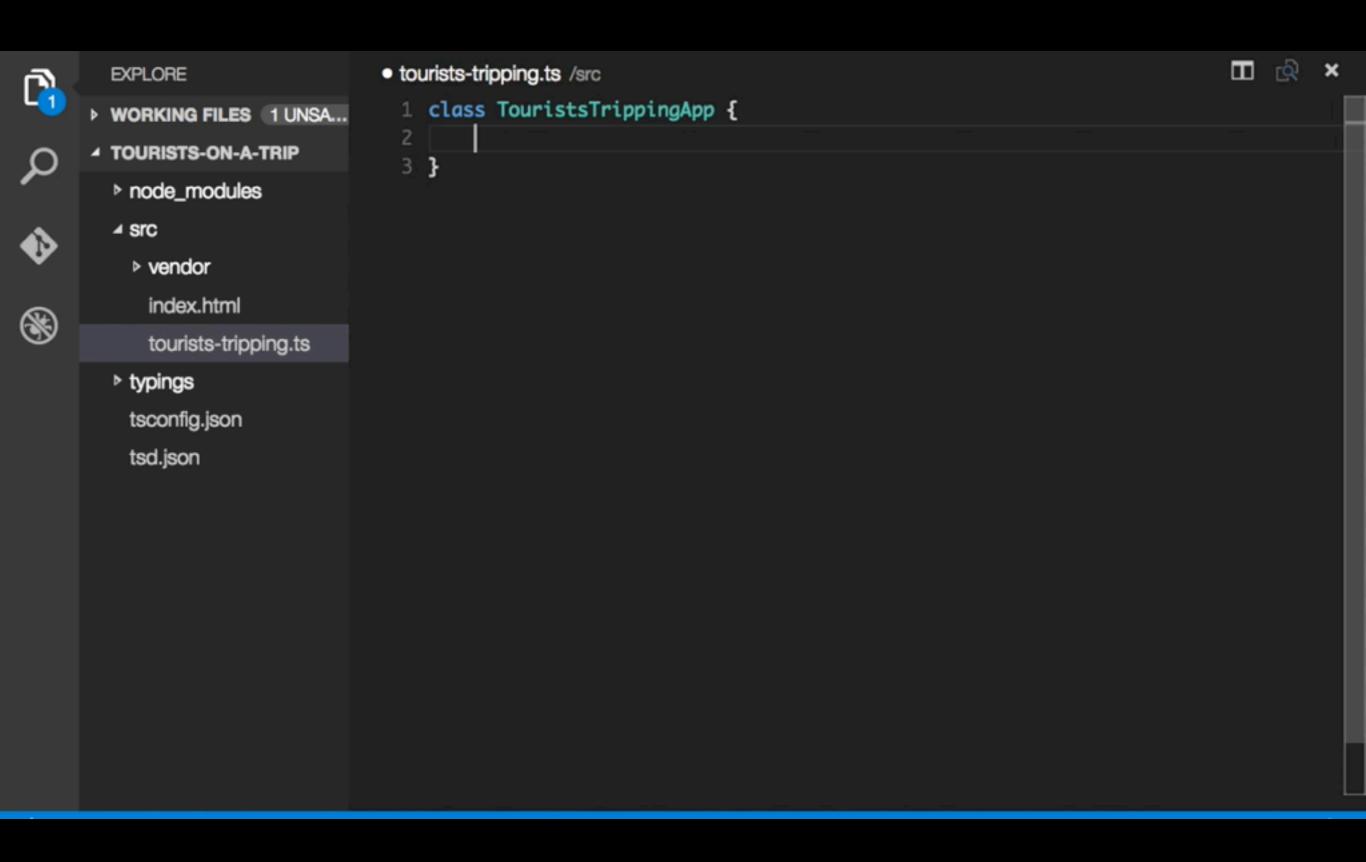
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 - ▲ SIC
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 - index.html
 - - ▶ angular2
 - ▹ es6-promise
 - ⊳ rx
 - ▷ socket.io-client
 - tsd.d.ts
 - tsd.json

- 🗖 🖻 tsd.d.ts /typings 1 /// <reference path="angular2/angular2.d.ts" /> 2 /// <reference path="es6-promise/es6-promise.d.ts" /> 3 /// <reference path="rx/rx-lite.d.ts" /> 4 /// <reference path="rx/rx.d.ts" /> 5 /// <reference path="socket.io-client/socket.io-client.d.ts" />

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-1	• WORKING FILES 1 UNSA	1 { 2 "compilerOptions": {		
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~	node_modules	4 "module": "amd",		
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v	▷ vendor	6 }, * 7 "filesGlob": [
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• tourists-tripping.ts /src

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1 /// <reference path="../typings/tsd.d.ts" />

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3 4 class TouristsTrippingApp {



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п 🖄 • tourists-tripping.ts /src × EXPLORE 1 /// <reference path="../typings/tsd.d.ts" /> WORKING FILES 1 UNSA... 2 import {Component, View, bootstrap} from 'angular2/angular2'; @Component({ selector: 'tourists-tripping-app' 6 **})** 7 class TouristsTrippingApp { index.html 9 } tourists-tripping.ts

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�	⊿ src ⊳ vendor	5 k href="/vendor/bootstrap.min.css" rel="stylesheet">6 k href="/vendor/material-fullpalette.css" rel="stylesheet">7 <script src="/vendor/traceur-runtime.js"></script><th></th>	
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8	tourists-tripping.html tourists-tripping.ts	<pre>9 <script src="/vendor/angular2.dev.js"></script> 10 11 <body></body></pre>	
	▶ typings	12 <tourists-tripping-app></tourists-tripping-app>	
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6	EXPLORE	• index.html /src	
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8	tourists-tripping.html	<pre>9 <script src="/vendor/angular2.dev.js"></script><th></th></pre>	
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	▶ typings	12 <tourists-tripping-app></tourists-tripping-app>	
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	tsd.json	<pre>14 <script> 15 System.import('tourists-tripping');</pre></td><td></td></tr><tr><th></th><th></th><th><pre>15 System.import('tourists-tripping'); 16 </script></pre> <th></th>	
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יים ק	 WORKING FILES TOURISTS-ON-A-TRIP 	<pre>1 /// <reference path="/typings/tsd.d.ts"></reference> 2 import {Component, View, bootstrap} from 'angular2/angular2';</pre>				
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� ⊛	 ▲ src ▶ vendor index.html tourists-tripping.html 	<pre>5 selector: 'tourists-tripping-app' 6 }) 7 @View({ 8 templateUrl: 'tourists-tripping.html' 9 }) 10 class TouristsTripping.for</pre>				
	tourists-tripping.ts	10 class TouristsTrippingApp { 11				1
	typings tsconfig.json	12 } 13				
	tsd.json	14 bootstrap(TouristsTrippingApp); I				

tourists-on-a-trip\$ tsc -w message TS6042: Compilation complete. Watching for file changes.

```
tourists-on-a-trip$ cd src/
src$ http-server .
Starting up http-server, serving . on: http://0.0.0.0:8080
Hit CTRL-C to stop the server
```

1 .	0	42	DA.	less lbast 0000
5 7	C	Π.		localhost:8080

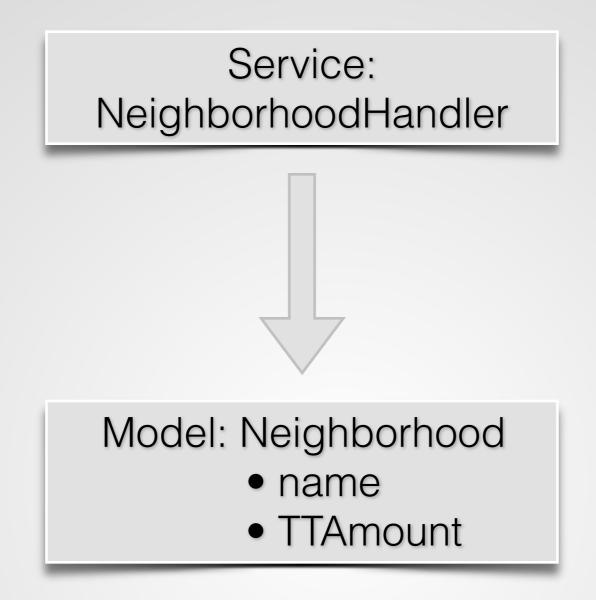
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Works!

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Ŋ	EXPLORE	tourists-tripping.js /src	□ 🗟 ×_
	 WORKING FILES TOURISTS-ON-A-TRIP 	<pre>8 }; 9 if (typeofmetadata !== "function")metadata = function (k, v) {</pre>	
م	▶ node_modules	<pre>10 if (typeof Reflect === "object" && typeof Reflect.metadata === "full") 11 };</pre>	unction") ret
•	⊿ src ⊳ vendor	<pre>12 define(["require", "exports", 'angular2/angular2'], function (require 13 var TouristsTrippingApp = (function () {</pre>	, exports, ar
8	index.html	<pre>14 function TouristsTrippingApp() { 15 }</pre>	
9	tourists-tripping.html	16 TouristsTrippingApp =decorate([
	tourists-tripping.js tourists-tripping.ts	<pre>17 angular2_1.Component({ 18 selector: 'tourists-tripping-app' 10 }</pre>	
	b typings	<pre>19 }), 20 angular2_1.View({ 21</pre>	
	tsconfig.json tsd.json	<pre>21 templateUrl: 'tourists-tripping.html' 22 }), 23metadata('design:paramtypes', [])</pre>	
		<pre>24], TouristsTrippingApp); 25 return TouristsTrippingApp;</pre>	
		<pre>26 })(); 27 angular2_1.bootstrap(TouristsTrippingApp);</pre>	
		28 }); 29	

Neighborhoods



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ت م	WORKING FILES TOURISTS-ON-A-TRIP	<pre>1 /// <reference path="/typings/tsd.d.ts"></reference> 2 import {Component, View, bootstrap} from 'angular2/angular2'; 3</pre>		
	▶ node_modules ⊿ src	<pre>4 @Component({ 5 selector: 'tourists-tripping-app'</pre>		
•	▷ service	6 }) 7 @View({		
8	▷ ve@dor	<pre>8 templateUrl: 'tourists-tripping.html'</pre>		
5	index.html tourists-tripping.html	<pre>9 }) 10 class TouristsTrippingApp { 11 12</pre>	Ī	
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	 ▶ typings 	<pre>14 bootstrap(TouristsTrippingApp);</pre>		

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1	export class Neighborhood {			1
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3	TTAmount:Number;			
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9 }

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```
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• neighborhood.ts /src/service/neighborhood-handler
    export class Neighborhood {
        name:String;
        TTAmount:Number;
        constructor(name:String, TTAmount:Number = 0) {
            this.name = name;
            this.TTAmount = TTAmount;
```

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```
• neighborhood.ts /src/service/neighborhood-handler
    export class Neighborhood {
        name:String;
        TTAmount:Number;
        constructor(name:String, TTAmount:Number = 0) {
            this.name = name;
            this.TTAmount = TTAmount;
        }
10
        setTTAmount(value:any) {
            this.TTAmount = parseFloat(value);
11
            return this;
12
        }
13
14 }
```

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- neighborhood-handler.ts /src/service/neighborhood-handler
 1 /// <reference path="../../typings/tsd.d.ts" />
 2
 3 export class NeighborhoodHandler {

5 }

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```
• neighborhood-handler.ts /src/service/neighborhood-handler
1 /// <reference path="../../.typings/tsd.d.ts" />
2 import {Neighborhood} from './neighborhood';
3
4 export class NeighborhoodHandler {
5 neighborhoods: Neighborhood[];
6
7 constructor() {
8 this.neighborhoods = [];
9 }
10
11 }
```



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 1 /// <reference path="../typings/tsd.d.ts" />
 2 import {Component, View, bootstrap} from 'angular2/angular2';
 3 import {NeighborhoodHandler} from 'service/neighborhood-handler/neighborho
  4
    @Component({
        selector: 'tourists-tripping-app',
 7 })
   @View({
        templateUrl: 'tourists-tripping.html'
10 })
11 class TouristsTrippingApp {
12
13 }
14
15 bootstrap(TouristsTrippingApp);
```



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5 6 7	<pre>@Component({ selector: 'tourists-tripping-app', appInjector: [NeighborhoodHandler]</pre>			
9 10	<pre>}) @View({ templateUrl: 'tourists-tripping.html' })</pre>			
12 13	<pre>}) class TouristsTrippingApp {</pre>			
14 15 16	<pre>} bootstrap(TouristsTrippingApp);</pre>			
10				



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5 6 7 9 10 11				
12 13	<pre>class TouristsTrippingApp {</pre>			
14 15 16 17	<pre>constructor(neighborhoodHandler:NeighborhoodHandler) { }</pre>			
18 19	}			
20	<pre>bootstrap(TouristsTrippingApp);</pre>			



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 1 /// <reference path="../typings/tsd.d.ts" />
 2 import {Component, View, bootstrap} from 'angular2/angular2';
 3 import {NeighborhoodHandler} from 'service/neighborhood-handler/neighborho
 4 import {Neighborhood} from 'service/neighborhood-handler/neighborhood';
   @Component({
        selector: 'tourists-tripping-app',
        appInjector: [NeighborhoodHandler]
 9 })
10 @View({
        templateUrl: 'tourists-tripping.html'
11
12 })
13 class TouristsTrippingApp {
        neighborhoods:Neighborhood[]
14
15
16
        constructor(neighborhoodHandler:NeighborhoodHandler) {
17
            this.neighborhoods = neighborhoodHandler.neighborhoods;
18
        }
19
20 }
21
22
    bootstrap(TouristsTrippingApp);
```

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class TouristsTrippingApp {
 neighborhoods:Neighborhood[]

constructor(neighborhoodHandler:NeighborhoodHandler) {
 this.neighborhoods = neighborhoodHandler.neighborhoods;
}

}



MDN > Web technology for developers > JavaScript > JavaScript reference > Standard built-in objects > Array > Array.prototype.push()

Array.prototype.push()

SHOW SIDEBAR

Summary

The **push()** method adds one or more elements to the end of an array and returns the new length of the array.

Syntax

arr.push(element1, ..., elementN)

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س	WORKING FILES	6 @Component({		
0	▲ TOURISTS-ON-A-TRIP	<pre>7 selector: 'tourists-tripping-app',</pre>		
~	▶ node_modules	<pre>8 appInjector: [NeighborhoodHandler] 9 })</pre>		
•	⊿ src	10 @View({		
♥	✓ service	<pre>11 templateUrl: 'tourists-tripping.html',</pre>		
8	neighborhood-handler	<pre>12 directives: [NgFor] 13 })</pre>		
	neighborhood.js	14 class TouristsTrippingApp {		
	neighborhood.ts	15 neighborhoods:Neighborhood[]		
	neighborhood-handler.js	<pre>16 17 constructor(neighborhoodHandler:NeighborhoodHandler) { </pre>		
	neighborhood-handler.ts	18 this.neighborhoods = neighborhoodHandler.neighborhoods;		
	▷ vendor	19 }		
	index.html	20 21 }		
	tourists-tripping.html	22		
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 tourists-tripping.html

tourists-tripping.js

tourists-tripping.ts

typings

tsconfig.json

tsd.json

• tou	urists-tripping.ts /src	1 🖸
6 7 8	<pre>@Component({ selector: 'tourists-tripping-app', appInjector: [NeighborhoodHandler]</pre>	
	}) })	
10	@View({	
11	<pre>templateUrl: 'tourists-tripping.html',</pre>	
12	directives: [NgFor]	
14	class TouristsTrippingApp [
15	neighborhoods:Neighborhood[]	
16	and we have the state of the st	
17	<pre>constructor(neighborhoodHandler:NeighborhoodHandler) {</pre>	
18	<pre>this.neighborhoods = neighborhoodHandler.neighborhoods;</pre>	
19		
20	neighborhoodHandler.pushNeighborhood(
21	····	
22	,)	
23	}	
24		
25	3	
26	he at a transfer of Tax and a star to a transfer of the transf	
27	<pre>bootstrap(TouristsTrippingApp);</pre>	

D (EXPLORE	tourists-tripping.ts /src		ý ,	×
·ں	WORKING FILES	6 @Component({			
ρ	▲ TOURISTS-ON-A-TRIP	<pre>7 selector: 'tourists-tripping-app',</pre>			
	▶ node_modules	<pre>8 appInjector: [NeighborhoodHandler] 9 })</pre>			
	⊿ src	10 @View({			
•>	✓ service	<pre>11 templateUrl: 'tourists-tripping.html',</pre>			
8	neighborhood-handler	<pre>12 directives: [NgFor] 13 })</pre>			
S	neighborhood.js	14 class TouristsTrippingApp {			
	neighborhood.ts	15 neighborhoods:Neighborhood[]			
	neighborhood-handler.js	<pre>16 17 constructor(neighborhoodHandler:NeighborhoodHandler) {</pre>			
	neighborhood-handler.ts	18 this.neighborhoods = neighborhoodHandler.neighborhoods	;;		
	▷ vendor	19			
	index.html	20 neighborhoodHandler.pushNeighborhood(21 'Central Amsterdam',			
	tourists-tripping.html	22 'Red Light District',			
	tourists-tripping.js	<pre>23 'Leidseplein',</pre>			
	tourists-tripping.ts	24 'Oud Zuid',			
	▹ typings	<pre>25 'Rembrandtplein', 26 'Jordaan',</pre>			
		27 'The Plantagebuurt',			
	tsconfig.json	28 'De Pijp'			
	tsd.json	29)			
		30 }			



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- WORKING FILES 1 UNSAVED
- TOURISTS-ON-A-TRIP
 - node_modules
 - ⊿ src
 - - neighborhood-handler
 - neighborhood.js
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 - neighborhood-handler.js
 - neighborhood-handler.ts

14 }

- ▷ vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - tourists-tripping.ts
- typings
 - tsconfig.json tsd.json

```
• neighborhood-handler.ts /src/service/neighborhood-handler
  1 /// <reference path="../../typings/tsd.d.ts" />
    import {Neighborhood} from './neighborhood';
  2
    export class NeighborhoodHandler {
        neighborhoods: Neighborhood[];
  6
        constructor() {
            this.neighborhoods = [];
        }
10
        pushNeighborhood(...names:String[]) {
11
12
        }
13
```

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- WORKING FILES 1 UNSAVED
- TOURISTS-ON-A-TRIP
 - node_modules
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 - index.html
- tourists-tripping.html
- tourists-tripping.js
- tourists-tripping.ts
- typings
 - tsconfig.json tsd.json

```
• neighborhood-handler.ts /src/service/neighborhood-handler
  1 /// <reference path="../../typings/tsd.d.ts" />
    import {Neighborhood} from './neighborhood';
  2
    export class NeighborhoodHandler {
        neighborhoods: Neighborhood[];
        constructor() {
            this.neighborhoods = [];
        }
10
        pushNeighborhood(...names:String[]) {
11
12
            names.map(
                 (name) => new Neighborhood(name)
13
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            )
15
        }
```

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- WORKING FILES 1 UNSAVED
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 - node_modules
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typings

tsconfig.json tsd.json

```
• neighborhood-handler.ts /src/service/neighborhood-handler
  1 /// <reference path="../../typings/tsd.d.ts" />
    import {Neighborhood} from './neighborhood';
    export class NeighborhoodHandler {
        neighborhoods: Neighborhood[];
        constructor() {
            this.neighborhoods = \square;
        }
10
11
        pushNeighborhood(...names:String[]) {
12
            this.neighborhoods.push(
13
                 ...names.map(
                     (name) => new Neighborhood(name)
14
15
                 )
16
            );
17
        }
18 }
```

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Tourists on a Trip

Central Amsterdam 0 Red Light District 0

Leidseplein 0

Oud Zuid 0

Rembrandtplein 0

Jordaan 0

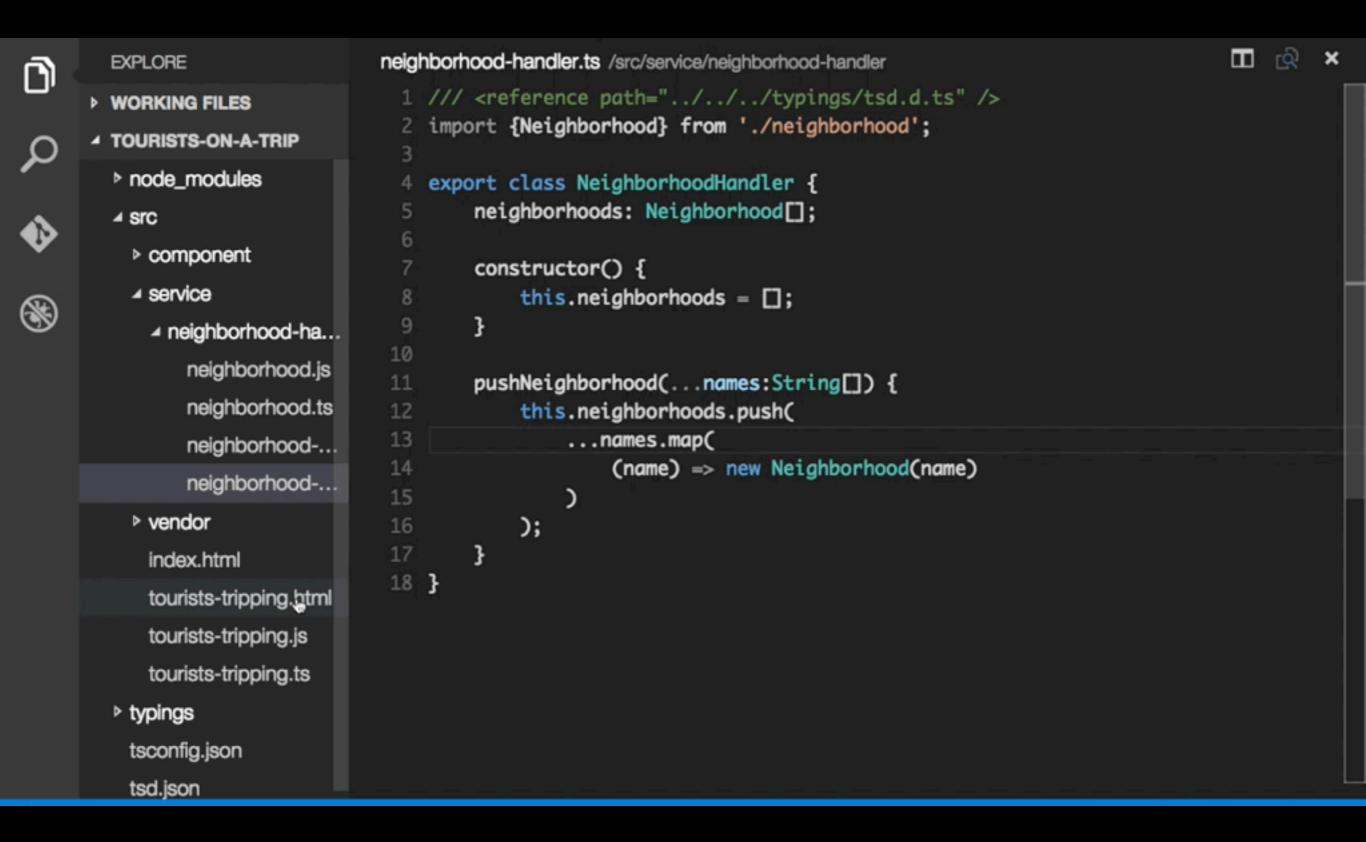
The Plantagebuurt 0

De Pijp 0

Component: PeopleCount

Central Amsterdam
How many Tourists on a trip do you see?
Value: 0
REPORT

```
<people-count
    title="..."
    amount="..."
></people-count>
```



EXPLORE VORKING FILES 1 UNSA TOURISTS-ON-A-TRIP node_modules Src Component Service neighborhood-ha neighborhood.js neighborhood.js neighborhood.ts neighborhood.ts neighborhood Neighborhood Neighborhood tourists-tripping.html tourists-tripping.js tourists-tripping.ts	<pre>• tourists-tripping.html /src 1</pre>	Ŕ	
 typings tsconfig.json tsd.json 			

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neighborhood-ha... neighborhood.js neighborhood.ts neighborhood-... neighborhood-...

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index.html

tourists-tripping.html

tourists-tripping.js

tourists-tripping.ts

typings

tsconfig.json

tsd.json

```
I 🔬
• tourists-tripping.html /src
                                                                                     ×
 1 <h1>
        Tourists on a Trip
 3 </h1>
    <div class="row" *ng-for="#neighborhood of neighborhoods;">
        <div class="col-md-12">
            <people-count
                [title]="neighborhood.name"
                [amount]="neighborhood.TTAmount"
10
            ></people-count>
11
        </div>
12 </div>
```



8

I 🔍 × people-count.ts /src/component/people-count EXPLORE 1 /// <reference path="../../typings/tsd.d.ts" /> WORKING FILES ▲ TOURISTS-ON-A-TRIP export class PeopleCount { node_modules title: String; amount: Number; ▲ src 6 } ▲ component ▲ people-count people-count.h... people-count.ts ▲ service ▲ neighborhood-ha... neighborhood.js neighborhood.ts neighborhood-... neighborhood-... ▷ vendor index.html tourists-tripping.html tourists-tripping.js tourists-tripping.ts





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node_modules

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▲ TOURISTS-ON-A-TRIP

▲ people-count

people-count.h...

people-count.js

people-count.ts

▲ service

▲ neighborhood-ha...

neighborhood.js

neighborhood.ts

neighborhood-...

neighborhood-...

vendor

index.html

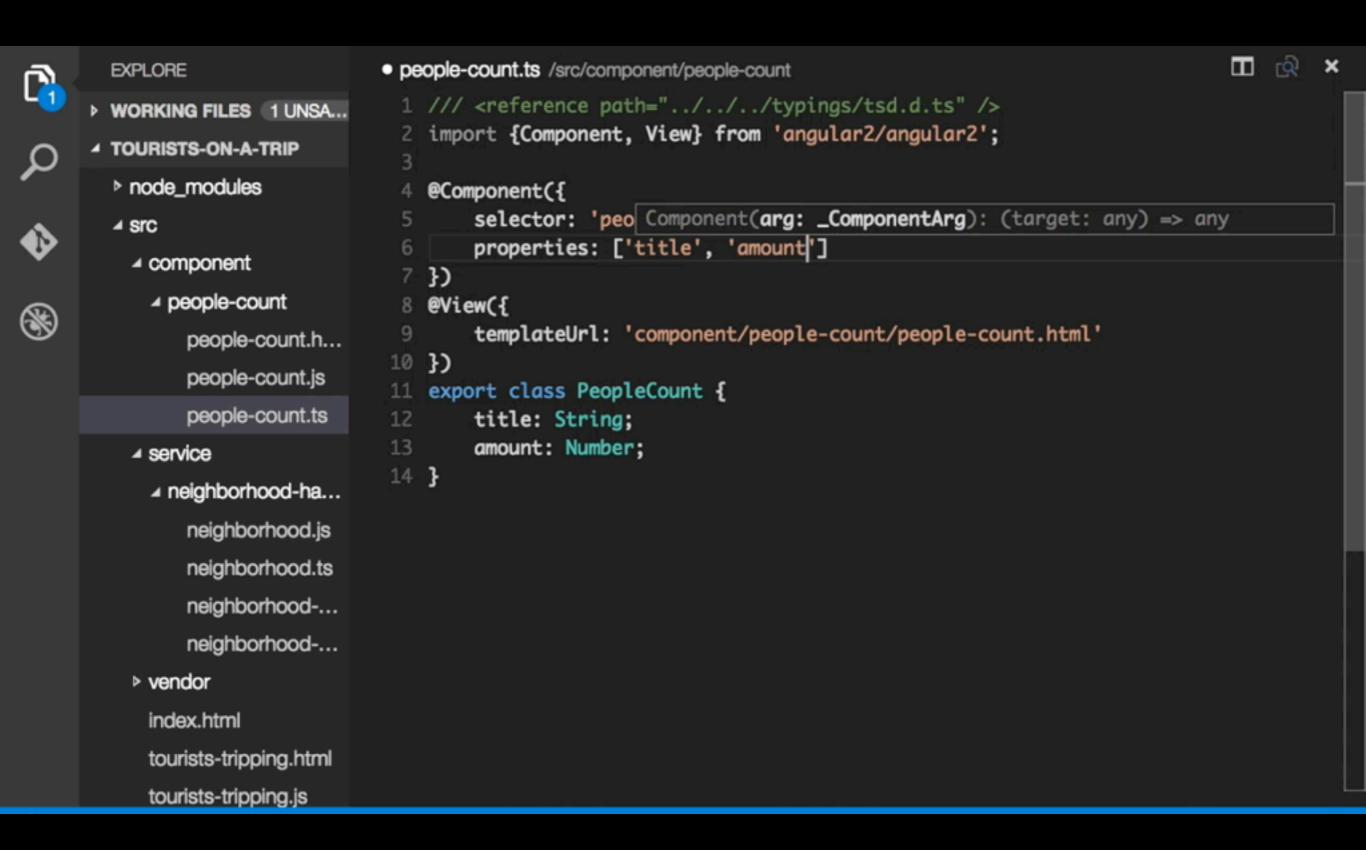
tourists-tripping.html

tourists-tripping.js

```
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                                                                                                               ×

    people-count.ts /src/component/people-count

                            1 /// <reference path="../../typings/tsd.d.ts" />
WORKING FILES 1 UNSA...
                            2 import {Component, View} from 'angular2/angular2';
                              @Component({
                                  selector: 'people-count'
                            6 })
                              @View({
                                  templateUrl: 'component/people-count/people-count.html'
                            9 })
                              export class PeopleCount {
                           10
                                  title: String;
                          11
                           12
                                  amount: Number;
                          13 }
```



ו	EXPLORE	people-count.ts /src/component/people-count	E 🗟	×
	WORKING FILES	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference></pre>		
ρ	▲ TOURISTS-ON-A-TRIP	<pre>2 import {Component, View} from 'angular2/angular2'; 3</pre>		
	▹ node_modules	4 @Component({		-
~	⊿ src	5 selector: 'peo Component(arg: _ComponentArg): (target: any) => an	у	
Ø		<pre>6 properties: ['title: tt-title', 'amount: tt-amount'] 7 })</pre>		
<u>ھ</u>	⊿ people-count	8 @View({		
8	people-count.h	<pre>9 templateUrl: 'component/people-count/people-count.html'</pre>		
	people-count.js	10 })		
	people-count.ts	<pre>11 export class PeopleCount { 12 title: String;</pre>		
	⊿ service	13 amount: Number;		
	⊿ neighborhood-ha…	14 }		
	neighborhood.js			
	neighborhood.ts			
	neighborhood			
	neighborhood			
	⊳ vendor			
	index.html			
	tourists-tripping.html			
	tourists-tripping.js			L

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node_modules

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WORKING FILES 1 UNSA...

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people-count.ts

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neighborhood-...

vendor

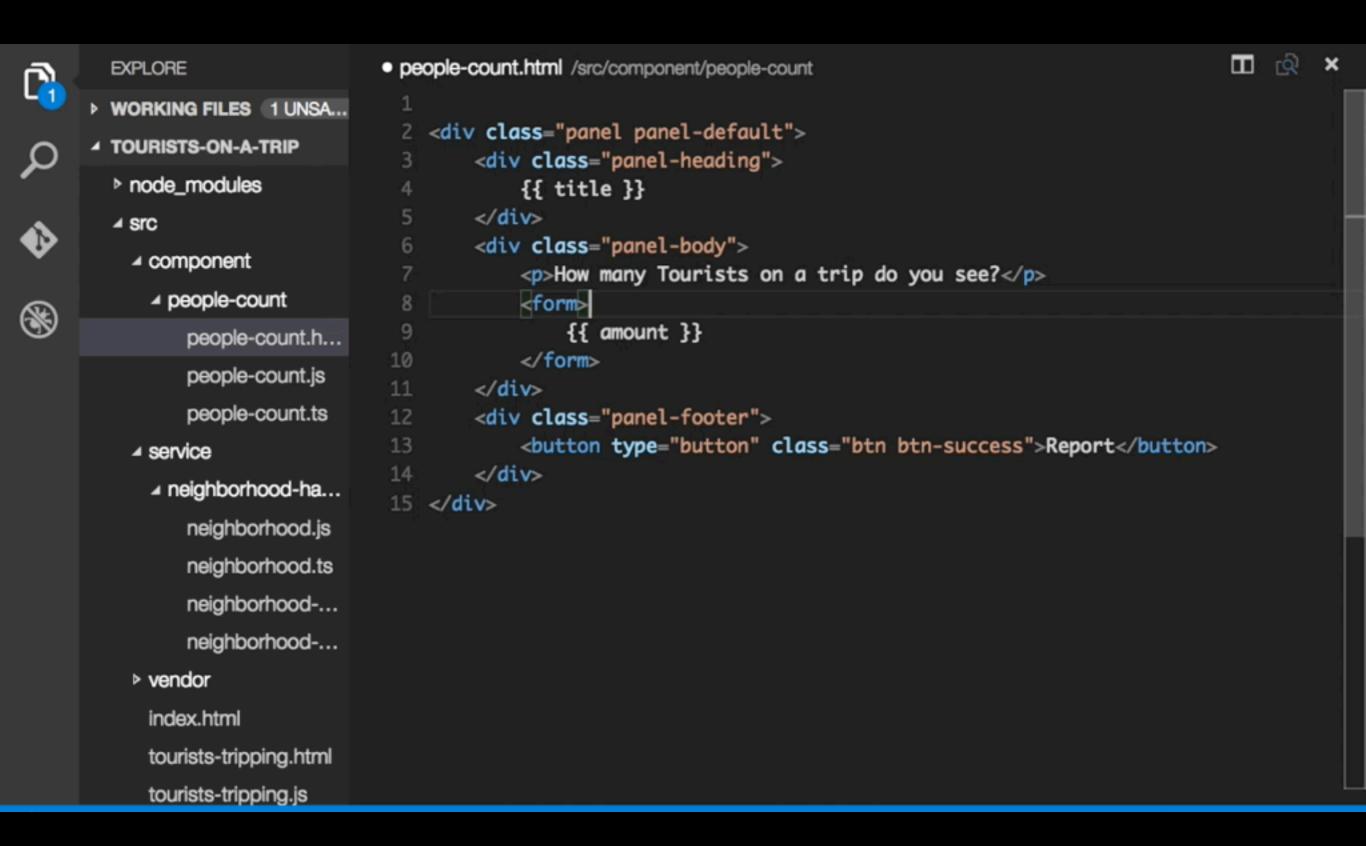
index.html

tourists-tripping.html

tourists-tripping.js

```
🗖 🖸
• tourists-tripping.html /src
 1 <h1>
        Tourists on a Trip
 3 </h1>
    <div class="row" *ng-for="#neighborhood of neighborhoods;">
        <div class="col-md-12">
            <people-count
                [tt-title]="neighborhood.name"
                [tt-amount]="neighborhood.TTAmount"
            ></people-count>
        </div>
12 </div>
```

C)	EXPLORE	• people-count.html /src/component/people-count	Π	ୟ	×
د <u>ا</u> م	 WORKING FILES 1 UNSA TOURISTS-ON-A-TRIP node_modules src 	1 2 <div class="panel panel-default"> 3 <div class="panel-heading"> 4 {{ tiel }} 5 </div></div>			
♥		<pre>6 <div class="panel-body"> 7 How many Tourists on a trip do you see?</div></pre>			
8	✓ people-count	8 <form></form>			
9	people-count.h	9 10			
	people-count.js	11			
	people-count.ts	12 <div class="panel-footer"></div>			
	✓ service	13 13 14			
	⊿ neighborhood-ha	14			
	neighborhood.js				
	neighborhood.ts				
	neighborhood				
	neighborhood				
	▷ vendor				
	index.html				
	tourists-tripping.html				
	tourists-tripping.js				L



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Tourists on a Trip

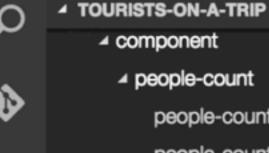
k

	EXPLORE	• tourists-tripping.ts /src	ශි	×				
-1	WORKING FILES 1 UNSA	<pre>1 /// <reference path="/typings/tsd.d.ts"></reference></pre>						
ρ	▲ TOURISTS-ON-A-TRIP	<pre>2 import {Component, View, bootstrap, NgFor} from 'angular2/angular2';</pre>						
	people-count.h	3 import {NeighborhoodHandler} from 'service/neighborhood-handler/neighborhood 4 import {Neighborhood} from 'service/neighborhood-handler/neighborhood';	1000-	nana				
•	people-count.js	<pre>5 import {PeopleCount} from 'component/people-count/people-count';</pre>						
0	people-count.ts	6 7 @Component({						
8	✓ service	<pre>8 selector: 'tourists-tripping-app',</pre>						
	⊿ neighborhood-ha…	9 appInjector: [NeighborhoodHandler]						
	neighborhood.js	10 })						
	neighborhood.ts	<pre>11 @View({ 12 templateUrl: ' View(arg: _ViewArg): (target: any) => any</pre>						
	neighborhood	13 directives: [NgFor, PeopleCount]						
	neighborhood	14 })						
	⊳ vendor	<pre>15 class TouristsTrippingApp { 16 neighborhoods:Neighborhood[]</pre>						
	index.html	17						
	tourists-tripping.html	<pre>18 constructor(neighborhoodHandler:NeighborhoodHandler) {</pre>						
	tourists-tripping.js	19 this.neighborhoods = neighborhoodHandler.neighborhoods; 20						
	tourists-tripping.ts	21 neighborhoodHandler.pushNeighborhood(
	▶ typings	<pre>22 'Central Amsterdam',</pre>						
		23 'Red Light District',						
	tsconfig.json	24 'Leidseplein',						
	tsd.json	25 'Oud Zuid',						

Forms

D	EXPLORE	tourists-tripping.html /src	E R	×
<u> </u>	WORKING FILES	1 <h1></h1>		
Ω	▲ TOURISTS-ON-A-TRIP	2 Tourists on a Trip 3		
\sim		4		
•	✓ people-count	5 <div *ng-for="#neighborhood of neighborhoods;" class="row"></div>		
♦	people-count.h	6 <div class="col-md-12"></div>		
-	people-count.js	<pre>7 <people-count 8="" <="" [tt-title]="neighborhood.name" pre=""></people-count></pre>		
8	people-count.ts	8 [tt-title]="neighborhood.name" 9 [tt-amount]="neighborhood.TTAmount"		
	✓ service	10 <pre>people-count></pre>		
	Ineighborhood-ha	11		
	neighborhood.js	12		
	neighborhood.ts			
	neighborhood			
	neighborhood			
	▷ vendor			
	index.html			
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	tourists-tripping.js			
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▲ neighborhood-ha...

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▲ people-count

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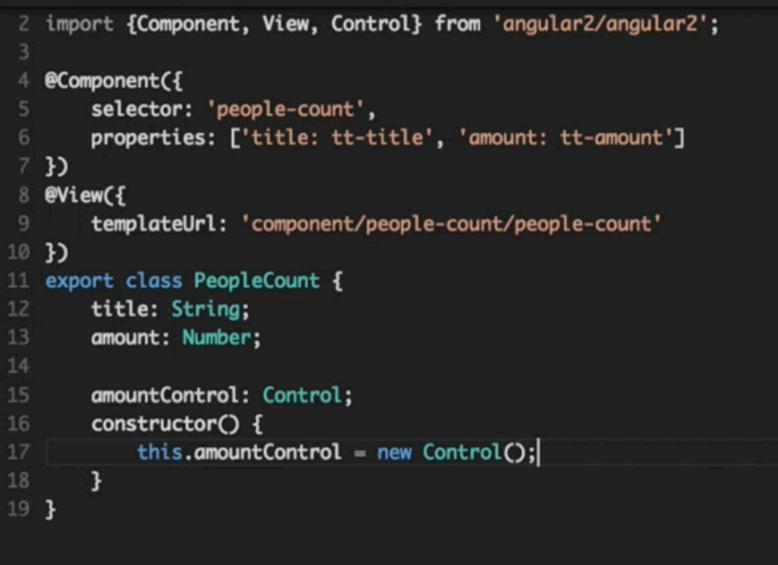
people-count.js

people-count.ts

▲ component

- neighborhood.js
- neighborhood.ts
- neighborhood-...
- neighborhood-...
- ▷ vendor
- index.html tourists-tripping.html
- tourists-tripping.js
- tourists-tripping.ts
- typings

```
    people-count.ts /src/component/people-count
```



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C_	EXPLORE	 people-count.ts /src/component/people-count 	
L 1	WORKING FILES 1 UNSA	2 import {Component, View, Control, ControlGroup} from 'angular2/angula	ar2';
Ω	▲ TOURISTS-ON-A-TRIP	3 4 @Component({	
~		<pre>5 selector: 'people-count',</pre>	
•	⊿ people-count	<pre>6 properties: ['title: tt-title', 'amount: tt-amount']</pre>	
•	people-count.h	7 })	
	people-count.js	<pre>8 @View({ 9 templateUrl: 'component/people-count/people-count'</pre>	
8	people-count.ts	10 })	
	∡ service	11 export class PeopleCount {	
	⊿ neighborhood-ha	12 title: String; 13 amount: Number;	
	neighborhood.js	14	
	neighborhood.ts	15 amountControl: Control;	
	neighborhood	<pre>16 peopleCountForm: ControlGroup; 17 constructor() {</pre>	
	neighborhood	18 this.amountControl = new Control();	
	▷ vendor	19	
	index.html	20	
	tourists-tripping.html	21 } 22 }	
	tourists-tripping.js		
	tourists-tripping.ts		
	▶ typings		

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	EXPLORE	people-count.ts /src/component/people-count	□ 🖄 ×
-1	• WORKING FILES 1 UNSA	<pre>2 import {Component, View, Control, ControlGroup, FormBuilder} from</pre>	'angular2/angula
Q	TOURISTS-ON-A-TRIP	3 4 @Component({	
~	∠ component	<pre>5 selector: 'people-count',</pre>	
•	⊿ people-count	<pre>6 properties: ['title: tt-title', 'amount: tt-amount']</pre>	
•	people-count.h	7 })	
	people-count.js	<pre>8 @View({ 9 templateUrl: 'component/people-count/people-count'</pre>	
8	people-count.ts	10 })	
		11 export class PeopleCount {	
	⊿ neighborhood-ha…	12 title: String; 13 amount: Number:	
	neighborhood.js	13 amount: Number; 14	
	neighborhood.ts	15 amountControl: Control;	
	neighborhood	16 peopleCountForm: ControlGroup;	
	neighborhood	<pre>17 constructor(builder: FormBuilder) { 18 this.amountControl = new Control();</pre>	
	⊳ vendor	19	
	index.html	<pre>20 this.peopleCountForm = builder.group({</pre>	
	tourists-tripping.html	21 amount: this.amountControl 22 };	
	tourists-tripping.js	23 }	
	tourists-tripping.ts	24 }	
	▷ typings		

ገ	EXPLORE	people-count.ts /src/component/people-count	🞞 🗟 🗙
	WORKING FILES	2 import {Component, View, Control, ControlGroup, FormBuilder} from 'and 'and 'and 'and 'and 'and 'and 'and	ngular2/angula
ρ	▲ TOURISTS-ON-A-TRIP	3	
	∡ component	<pre>4 @Component({ 5 selector: 'people-count',</pre>	
•	✓ people-count	6 properties: [' Component(arg: _ComponentArg): (target: any) => ar	ny
Ø	people-count.h	7 appInjector: [FormBuilder]	
-	people-count.js	8 }) 2 000	
8	people-count.ts	<pre>9 @View({ templateUrl: 'component/people-count/people-count' </pre>	
	✓ service	11 })	
	neighborhood-ha	12 export class PeopleCount {	
	neighborhood.js	13 title: String;	
		14 amount: Number;	
	neighborhood.ts	15 16 amountControl: Control;	
	neighborhood	17 peopleCountForm: ControlGroup;	
	neighborhood	<pre>18 constructor(builder: FormBuilder) {</pre>	
	▷ vendor	<pre>19 this.amountControl = new Control();</pre>	
	index.html	20	
	tourists-tripping.html	<pre>21 this.peopleCountForm = builder.group({</pre>	
		22 amount: this.amountControl	
	tourists-tripping.js	23 }); 24 }	
	tourists-tripping.ts	24 } 25 }	
	▷ typings		



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typings

```
🔳 🖻
• people-count.html /src/component/people-count
   <div class="panel panel-default">
        <div class="panel-heading">
            {{ title }}
       </div>
        <div class="panel-body">
            How many Tourists on a trip do you see?
            <form>
                <input type="range" />
                Value: {{ amountControl.value }}
            </form>
       </div>
        <div class="panel-footer">
            <button type="button" class="btn btn-success">Report</button>
       </div>
16 </div>
```

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EXPLORE WORKING FILES 1 UNSA... TOURISTS-ON-A-TRIP ▲ component ▲ people-count people-count.h... people-count.js people-count.ts ▲ service ▲ neighborhood-ha… neighborhood.js neighborhood.ts neighborhood-... neighborhood-... ▷ vendor

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index.html tourists-tripping.html

tourists-tripping.js

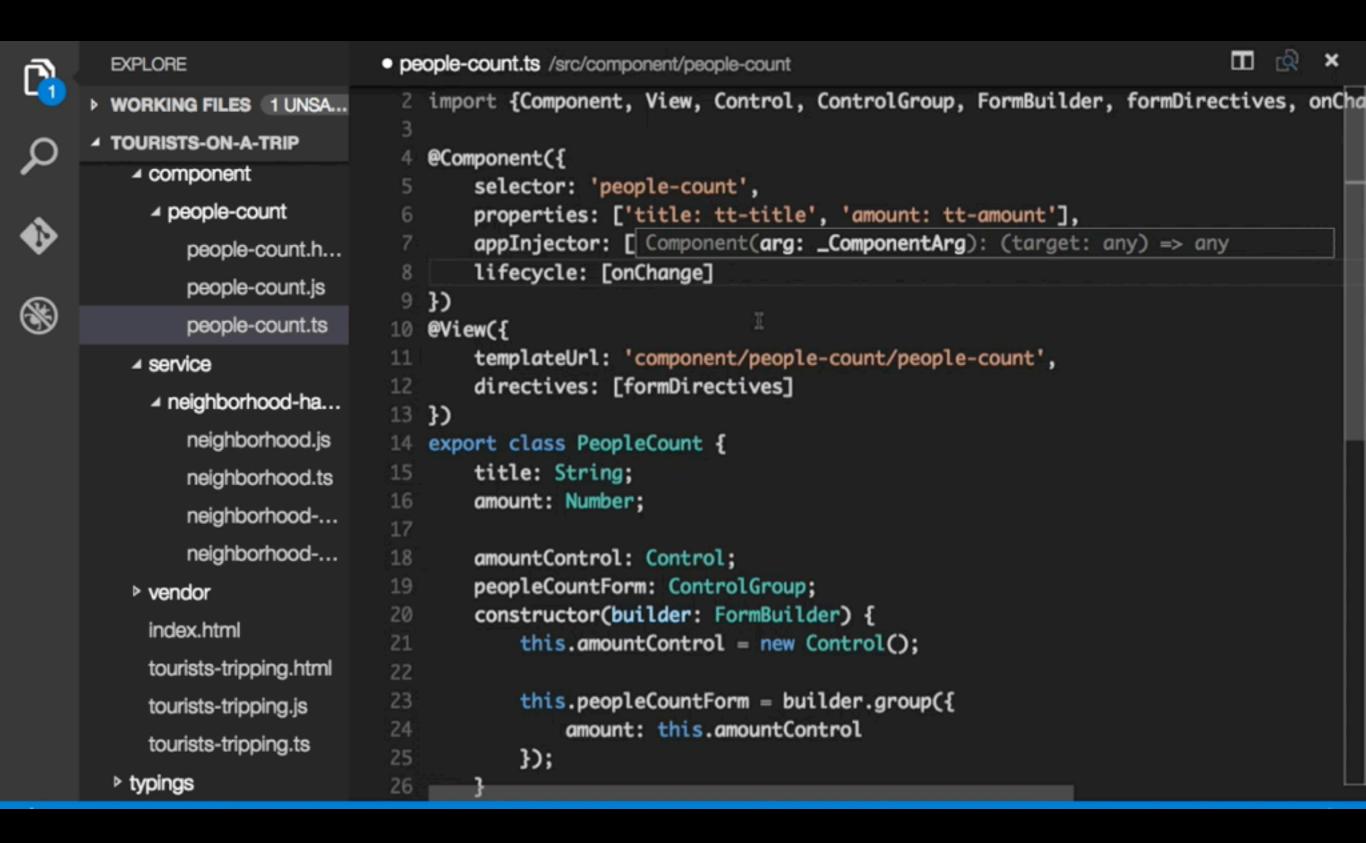
tourists-tripping.ts

typings

```
🔲 🖻
• people-count.html /src/component/people-count
   <div class="panel panel-default">
        <div class="panel-heading">
            {{ title }}
       </div>
        <div class="panel-body">
            How many Tourists on a trip do you see?
            <form [ng-form-model]="peopleCountForm">
                <input type="range" ng-control="amount" />
                Value: {{ amountControl.value }}
            </form>
        </div>
        <div class="panel-footer">
            <button type="button" class="btn btn-success">Report</button>
       </div>
16 </div>
```

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D <	EXPLORE	people-count.ts /src/component/people-count	□ 🕰	×
۰ ت	WORKING FILES	2 import {Component, View, Control, ControlGroup, FormBuilder,	formDirectives f	rom
0	▲ TOURISTS-ON-A-TRIP	3 4 @Component([
\sim		<pre>4 @Component({ 5 selector: 'people-count',</pre>		
•	⊿ people-count	<pre>6 properties: ['title: tt-title', 'amount: tt-amount'],</pre>		
�	people-count.h	7 appInjector: [FormBuilder]		- 11
\sim	people-count.js	8 }) 9 @View({		
8	people-count.ts	<pre>10 templateUrl: 'component/people-count/people-count',</pre>		
		11 directives: [formDirectives]		
	⊿ neighborhood-ha…	12 })		
	neighborhood.js	<pre>13 export class PeopleCount { 14 title: String;</pre>		
	neighborhood.ts	15 amount: Number;		
	neighborhood	16		
	neighborhood	<pre>17 amountControl: Control; 18 peopleCountForm: ControlGroup;</pre>		
	▷ vendor	<pre>19 constructor(builder: FormBuilder) {</pre>		
	index.html	<pre>20 this.amountControl = new Control();</pre>		
	tourists-tripping.html	21		
	tourists-tripping.js	<pre>22 this.peopleCountForm = builder.group({ 23 amount: this.amountControl</pre>		
		24 });		
	tourists-tripping.ts	25 }		
	▷ typings	26]		



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·⊔	WORKING FILES	22		
0	▲ TOURISTS-ON-A-TRIP	<pre>23 this.peopleCountForm = builder.group({</pre>		
~		24 amount: this.amountControl		
•	⊿ people-count	25 }); 26 }		
♥	people-count.h	27		
~	people-count.js	28 onChange() {		
8	people-count.ts	<pre>29 this.amountControl.updateValue(this.amount); 30 }</pre>		+
	✓ service	30 } 31 }		
	⊿ neighborhood-ha…			
	neighborhood.js	I		
	neighborhood.ts			
	neighborhood			
	neighborhood			
	▷ vendor			
	index.html			
	tourists-tripping.html			
	tourists-tripping.js			
	tourists-tripping.ts			
	⊳ typings			

One Way Data-binding

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Tourists on a Trip

Central Amsterdam

How many Tourists on a trip do you see?

Value: 0			
REPORT			
Red Light District How many Tourists on a trip do you Value: 0	QuickTime Player	\$	
REPORT			
Leidseplein			
How many Tourists on a trip do you see?			
REPORT			

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▲ service

EXPLORE

▲ neighborhood-ha...

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▲ people-count

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▲ TOURISTS-ON-A-TRIP

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index.html

tourists-tripping.html

tourists-tripping.js

tourists-tripping.ts

typings

```
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• tourists-tripping.html /src
                                                                                     ×
 1 <h1>
        Tourists on a Trip
   </h1>
    <div class="row" *ng-for="#neighborhood of neighborhoods;">
        <div class="col-md-12">
            ModelValue: {{ neighborhood.TTAmount }}
            <people-count
                [tt-title]="neighborhood.name"
10
                [tt-amount]="neighborhood.TTAmount"
            ></people-count>
11
12
        </div>
13 </div>
```

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Tourists on a Trip

ModelValue: 0	
Central Amsterdam	
How many Tourists on a trip do you see?	
Value: 0	
REPORT	
ModelValue: 0	
Red Light District	
How many Tourists on a trip do you see?	
Value: 0	
REPORT	
ModelValue: 0	
Leidseplein	
How many Tourists on a trip do you see?	
Value: 0	

REPORT

D	EXPLORE	tourists-tripping.html /src		ශි	×	
ים.	WORKING FILES	1 <h1></h1>				
0	▲ TOURISTS-ON-A-TRIP	2 Tourists on a Trip 3				
~		3 				
•	⊿ people-count	<pre><div *ng-for="#neighborhood of neighborhoods;" class="row"></div></pre>				
♥	people-count.h	6 <div class="col-md-12"></div>				
A	people-count.js	<pre>7 ModelValue: {{ neighborhood.TTAmount }} 8 <people-count< pre=""></people-count<></pre>				
8	people-count.ts	9 [tt-title]="neighborhood.name"				
	✓ service	10 [tt-amount]="neighborhood.TTAmount"				
	✓ neighborhood-ha	<pre>11 (tt-amount-change)="neighborhood.setTTAmount(\$event.amount 12 ></pre>	:)"			
	neighborhood.js	13				
	neighborhood.ts	14				
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	tourists-tripping.js					
	tourists-tripping.ts					
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typings

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people-count.ts /src/component/people-count EXPLORE 1 /// <reference path="../../typings/tsd.d.ts" /> WORKING FILES 1 UNSA... import {Component, View, Control, ControlGroup, FormBuilder, formDirectives, onCha TOURISTS-ON-A-TRIP ▲ component @Component({ ▲ people-count selector: 'people-count', properties: ['title: tt-title', 'amount: tt-amount'], people-count.h... appInjector: [FormBuilder], people-count.js lifecycle: [onChange], * people-count.ts events: ['ttAmountChange'] 10 }) ▲ service 11 @View({ ▲ neighborhood-ha… 12 templateUrl: 'component/people-count/people-count', neighborhood.js 13 directives: [formDirectives] 14 }) neighborhood.ts export class PeopleCount { 15 neighborhood-... 16 title: String; neighborhood-... 17 amount: Number; 18 ▷ vendor 19 amountControl: Control; index.html 20 peopleCountForm: ControlGroup; tourists-tripping.html 21 constructor(builder: FormBuilder) { this.amountControl = new Control(); 22 tourists-tripping.js 23 tourists-tripping.ts this.peopleCountForm = builder.group({ 24

amount: this.amountControl

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D <	EXPLORE	people-count.ts /src/component/people-count	Ξ	ୟ	×
ں م	 WORKING FILES TOURISTS-ON-A-TRIP 	15 export class PeopleCount { 16 title: String;			
•	 component people-count people-count.h people-count.js 	<pre>17 amount: Number; 18 19 ttAmountChange: EventEmitter; 20 21 amountControl: Control; 22 peopleCountForm: ControlGroup;</pre>			
8	people-count.ts	<pre>23 constructor(builder: FormBuilder) { 24 this.ttAmountChange = new EventEmitter();</pre>			
	neighborhood-ha neighborhood.js neighborhood.ts neighborhood	<pre>25 26 this.amountControl = new Control(); 27 28 this.peopleCountForm = builder.group({ 29 amount: this.amountControl</pre>			
	neighborhood • vendor	30 }); 31 } 32 33 or Change () {			
	index.html tourists-tripping.html tourists-tripping.js	<pre>33 onChange() { 34 this.amountControl.updateValue(this.amount); 35 } 36 }</pre>			
	tourists-tripping.ts typings				



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• people-count.html /src/component/people-count

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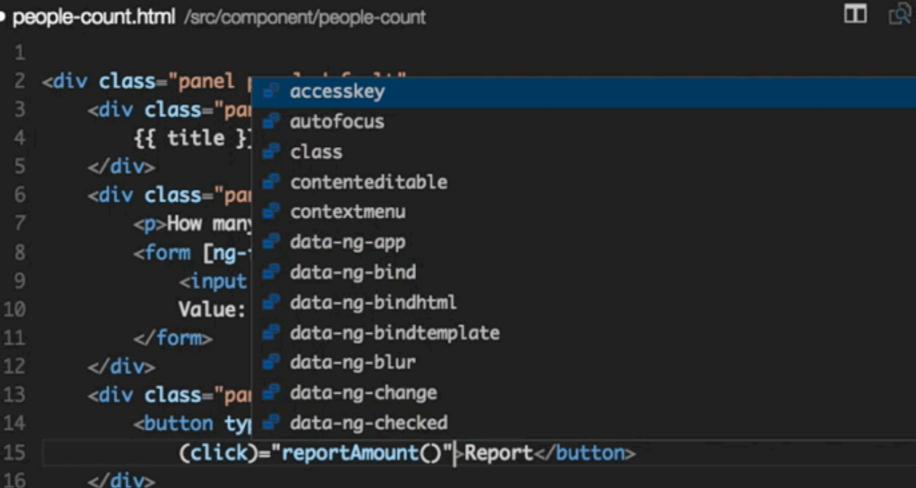
index.html

tourists-tripping.html

tourists-tripping.js

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typings



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16 17 </div>

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۰ ت	WORKING FILES	18			
0	▲ TOURISTS-ON-A-TRIP	<pre>19 ttAmountChange: EventEmitter; 20</pre>			
\sim		21 amountControl: Control;			
•	✓ people-count	<pre>22 peopleCountForm: ControlGroup;</pre>			
�	people-count.h	<pre>23 constructor(builder: FormBuilder) {</pre>			
	people-count.js	<pre>24 this.ttAmountChange = new EventEmitter(); 25</pre>			
8	people-count.ts	<pre>26 this.amountControl = new Control();</pre>			
	✓ service	27			
	▲ neighborhood-ha…	<pre>28 this.peopleCountForm = builder.group({ 29 amount: this.amountControl</pre>			
	neighborhood.js	30 });			
	neighborhood.ts	31 }			
	neighborhood	32 33 onChange() {			
	neighborhood	34 this.amountControl.updateValue(this.amount);			
	▷ vendor	35 }			
	index.html	36			
	tourists-tripping.html	<pre>37 reportAmount() { 38 var event = {</pre>			
		<pre>38 var event = { 39 amount: this.amountControl.value</pre>			
	tourists-tripping.js	40 };			
	tourists-tripping.ts	<pre>41 this.ttAmountChange.next(event);</pre>			
	▷ typings	42 }			

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Tourists on a Trip

ModelValue: 0				
Central Amsterdam				
How many Tourists on a trip do you see? Value: 0				
REPORT				
ModelValue: 0				
Red Light District				
How many Tourists on a trip do you see?				
REPORT				
ModelValue: 0				
Leidseplein				
How many Tourists on a trip do you see? Value: 0				

REPORT

Service: SocketHandler

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Tourists on a Trip

IodelValue: 0			
Central Amsterdam			
How many Tourists on a trip do you see? Value: 0			
REPORT AcdelValue: 0 Red Light District How many Tourists on a trip do you Value: 0	QuickTime Player		
REPORT			
fodelValue: 0			
Leidseplein			
How many Tourists on a trip do you see? Value: 0			

REPORT



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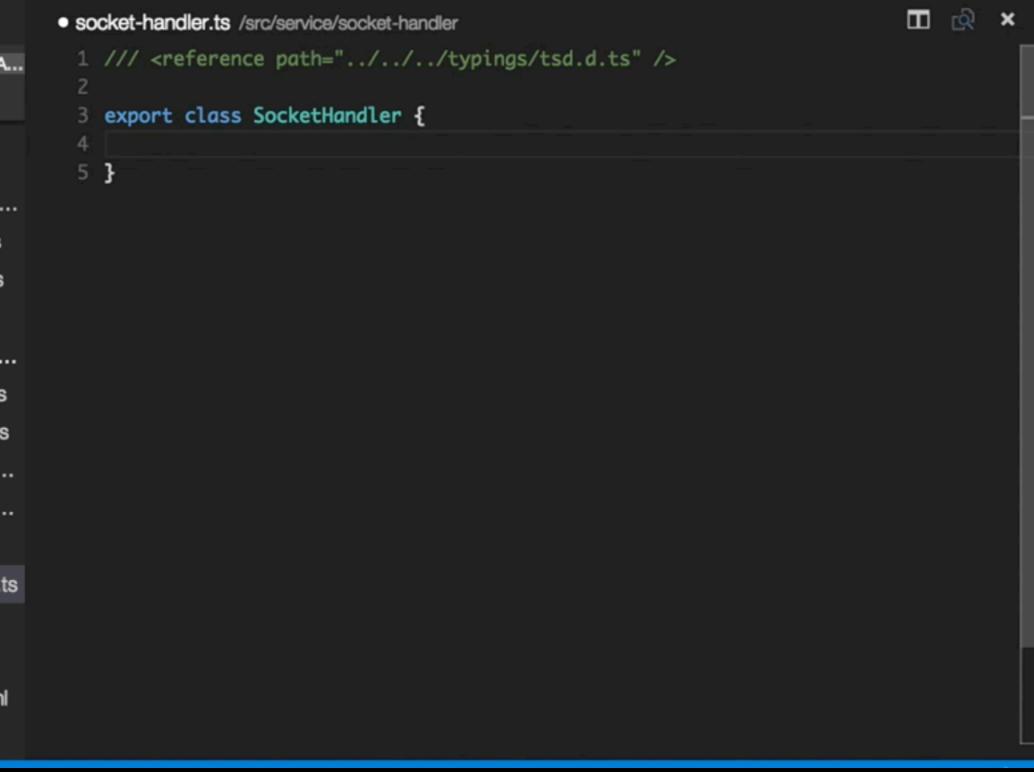
socket-handler.ts

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• socket-handler.ts /src/service/socket-handler 1 /// <reference path="../../typings/tsd.d.ts" /> 2 3 export class SocketHandler { 4 socket: SocketIOClient.Socket; 5 }

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index.html

tourists-tripping.html

tourists-tripping.js

socket-handler.ts /src/service/socket-handler

1 /// <reference path="../../typings/tsd.d.ts" />

export class SocketHandler { socket: SocketIOClient.Socket;

constructor() { this.socket = io.connect("http://localhost:98

this.socket = io.connect("<u>http://localhost:</u>9898");

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```
    socket-handler.ts /src/service/socket-handler
```

1 /// <reference path="../../typings/tsd.d.ts" />

```
export class SocketHandler {
    socket: SocketIOClient.Socket;
```

```
constructor() {
    this.socket = io.connect("<u>http://localhost:9898</u>");
}
```

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updateNeighborhood(name: string, TTAmount: number) {



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```

1 /// <reference path="../../typings/tsd.d.ts" />

```
export class SocketHandler {
    socket: SocketIOClient.Socket;
```

```
constructor() {
    this.socket = io.connect("<u>http://localhost:9898</u>");
}
```

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```
updateNeighborhood(name: string, TTAmount: number) {
    this.socket.emit('updateNeighborhoods', {
        [name]: TTAmount
    });
```





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```
    socket-handler.ts /src/service/socket-handler

 1 /// <reference path="../../typings/tsd.d.ts" />
    export class SocketHandler {
        socket: SocketIOClient.Socket;
        constructor() {
            this.socket = io.connect("<u>http://localhost:9898</u>");
        }
        updateNeighborhood(name: string, TTAmount: number) {
            this.socket.emit('updateNeighborhoods', {
                 [name]: TTAmount
            });
        }
        onUpdateNeighborhood(listener: Function) {
        }
```

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ā	EXPLORE	socket-handler.ts /src/service/socket-handler	Π	ଜ	×
D	WORKING FILES	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference></pre>			
Q		2 3 export class SocketHandler {			
	✓ component ✓ people-count	<pre>4 socket: SocketIOClient.Socket; 5</pre>			
Ø	people-count.h	<pre>6 constructor() { 7 this.socket = io.connect("<u>http://localhost:9898</u>");</pre>			
8	people-count.js people-count.ts	8 } 9			
0	⊿ service	<pre>10 updateNeighborhood(name: string, TTAmount: number) {</pre>			
	▲ neighborhood-ha	<pre>11 this.socket.emit('updateNeighborhoods', { 12 [name]: TTAmount</pre>			
	neighborhood.js neighborhood.ts	13 }); 14 }			
	neighborhood	15			
	neighborho@d	<pre>16 onUpdateNeighborhood(listener: Function) { 17 this.socket.on('updateNeighborhoods', (data) => { </pre>			
	✓ socket-handler	<pre>18 Object.keys(data).forEach(19 (name) => listener(name, data[name])</pre>			
	socket-handler.ts vendor	20);			
	index.html	22 }			
	tourists-tripping.html	23 }			
	tourists-tripping.js				

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    neighborhood-handler.ts /src/service/neighborhood-handler

                                                                                      ×
 1 /// <reference path="../../typings/tsd.d.ts" />
    import {Neighborhood} from './neighborhood';
    import {SocketHandler} from '../../service/socket-handler/socket-handler';
    export class NeighborhoodHandler {
        neighborhoods: Neighborhood[];
        constructor(socketHandler: SocketHandler) {
            this.neighborhoods = [];
10
        }
11
12
        pushNeighborhood(...names:String[]) {
            this.neighborhoods.push(
13
14
                 ...names.map(
15
                    (name) => new Neighborhood(name)
16
                )
17
            );
18
        }
19 }
```

(EXPLORE	• neighborhood-handler.ts /src/service/neighborhood-handler
L_1	WORKING FILES 1 UNSA	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference></pre>
ρ	▲ TOURISTS-ON-A-TRIP	<pre>2 import {Inject} from 'angular2/angular2'; 3 import {Neighborhood} from './neighborhood';</pre>
~	 ✓ component ✓ people-count 	<pre>4 import {SocketHandler} from '//service/socket-handler/socket-handler'; 5</pre>
••	people-count.h people-count.js	<pre>6 export class NeighborhoodHandler { 7 neighborhoods: Neighborhood[]; 8</pre>
8	people-count.ts	<pre>9 constructor(@Inject(SocketHandler) socketHandler: SocketHandler) {</pre>
	✓ service	10 this.neighborhoods = [];
	⊿ neighborhood-ha	11 } 12
	neighborhood.js	<pre>13 pushNeighborhood(names:String[]) {</pre>
	neighborhood.ts	14 this.neighborhoods.push(
	neighborhood	<pre>15names.map(16 (name) => new Neighborhood(name)</pre>
	neighborhood	17)
	socket-handler	18);
	socket-handler.js	19 } 20 }
	socket-handler.ts	20 J
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	index.html	
	tourists-tripping.html	

(]	EXPLORE	• neighborhood-handler.ts /src/service/neighborhood-handler
L1	WORKING FILES 1 UNSA	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference></pre>
ρ	▲ TOURISTS-ON-A-TRIP	<pre>2 import {Inject} from 'angular2/angular2'; 3 import {Neighborhood} from './neighborhood';</pre>
•	 ✓ component ✓ people-count 	<pre>4 import {SocketHandler} from '//service/socket-handler/socket-handler'; 5</pre>
▼ ⊛	people-count.h people-count.js people-count.ts	<pre>6 export class NeighborhoodHandler { 7 neighborhoods: Neighborhood[]; 8 socketHandler: SocketHandler; 9</pre>
Ū	✓ service ✓ neighborhood-ha neighborhood.js	<pre>10 constructor(@Inject(SocketHandler) socketHandler: SocketHandler) { 11 this.neighborhoods = []; 12 this.socketHandler = socketHandler; 13</pre>
	neighborhood.ts neighborhood	<pre>14 this.socketHandler.onUpdateNeighborhood((name, amount) => { 15</pre>
	neighborhood	16 }); 17 }
	socket-handler socket-handler.js socket-handler.ts	<pre>18 19 pushNeighborhood(names:String[]) { 20 this.neighborhoods.push(21names.map() </pre>
	▶ vendor	<pre>22 (name) => new Neighborhood(name)</pre>
	index.html tourists-tripping.html	23) 24); 25 }

ā.	EXPLORE	• neighborhood-handler.ts /src/service/neighborhood-handler
C)	• WORKING FILES 1 UNSA	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference> 2 immont {Inject} from 'encular2'encular2':</pre>
0	TOURISTS-ON-A-TRIP	<pre>2 import {Inject} from 'angular2/angular2'; 3 import {Neighborhood} from './neighborhood';</pre>
~	✓ component	<pre>4 import {SocketHandler} from '//service/socket-handler/socket-handler';</pre>
•	✓ people-count	5
•	people-count.h	6 export class NeighborhoodHandler {
	people-count.js	<pre>7 neighborhoods: Neighborhood[];</pre>
8	people-count.ts	8 socketHandler: SocketHandler; 9
	✓ service	<pre>10 constructor(@Inject(SocketHandler) socketHandler: SocketHandler) {</pre>
	▲ neighborhood-ha	<pre>11 this.neighborhoods = []; 12 this.socketHandler = socketHandler;</pre>
	neighborhood.js	13
	neighborhood.ts	<pre>14 this.socketHandler.onUpdateNeighborhood((name, amount) => {</pre>
	neighborhood	<pre>15 var neighborhood: Neighborhood = this.neighborhoods.filter(16 (n) => n.name === name</pre>
	neighborhood	17);
		18 });
	socket-handler.js	19 } 20
	socket-handler.ts	<pre>21 pushNeighborhood(names:String[]) {</pre>
	▷ vendor	22 this.neighborhoods.push(
	index.html	23names.map(
	tourists-tripping.html	24 (name) => new Neighborhood(name) 25)

C)	EXPLORE	• neighborhood-handler.ts /src/service/neighborhood-handler 🖬 🔬 🗙
L_1	WORKING FILES 1 UNSA	1 /// <reference path="//typings/tsd.d.ts"></reference>
Ω	▲ TOURISTS-ON-A-TRIP	<pre>2 import {Inject} from 'angular2/angular2'; 3 import {Neighborhood} from './neighborhood';</pre>
~	✓ component	<pre>4 import {SocketHandler} from '//service/socket-handler/socket-handler';</pre>
•		5
♥	people-count.h	6 export class NeighborhoodHandler {
~	people-count.js	<pre>7 neighborhoods: Neighborhood[]; 8 socketHandler: SocketHandler;</pre>
8	people-count.ts	9
	✓ service	<pre>10 constructor(@Inject(SocketHandler) socketHandler: SocketHandler) {</pre>
	Ineighborhood-ha	<pre>11 this.neighborhoods = []; Type 'Neighborhood[]' is not assignable to type 'Neighborhood'. Property 'name'</pre>
	neighborhood.js	is missing in type 'Neighborhood[]'.
	neighborhood.ts	(local var) neighborhood: Neighborhood
	neighborhood	<pre>15 var neighborhood: Neighborhood = this.neighborhoods.filter(16 (n) => n.name === name</pre>
	neighborhood	17);
	socket-handler	18 });
	socket-handler.js	19 } 20
	socket-handler.ts	<pre>21 pushNeighborhood(names:String[]) {</pre>
	▷ vendor	22 this.neighborhoods.push(
	index.html	23names.map(
	tourists-tripping.html	24 (name) => new Neighborhood(name) 25)

a	EXPLORE	neighborhood-handler.ts /src/service/neighborhood-handler
C ₁	▶ WORKING FILES 1 UNSA	1 /// <reference path="//typings/tsd.d.ts"></reference>
ρ	A TOURISTS-ON-A-TRIP	<pre>2 import {Inject} from 'angular2/angular2'; 3 import {Neighborhood} from './neighborhood';</pre>
	✓ component ✓ people-count	<pre>4 import {SocketHandler} from '//service/socket-handler/socket-handler'; 5</pre>
•	people-count.h	6 export class NeighborhoodHandler {
	people-count.js	<pre>7 neighborhoods: Neighborhood[]; 8 socketHandler: SocketHandler;</pre>
8	people-count.ts	9
	✓ service	<pre>10 constructor(@Inject(SocketHandler) socketHandler: SocketHandler) {</pre>
	⊿ neighborhood-ha…	<pre>11 this.neighborhoods = []; 12 this.socketHandler = socketHandler;</pre>
	neighborhood.js	13
	neighborhood.ts	<pre>14 this.socketHandler.onUpdateNeighborhood((name, amount) => {</pre>
	neighborhood	<pre>15 var neighborhood: Neighborhood = this.neighborhoods.filter(16 (n) => n.name === name</pre>
	neighborhood	17)[0];
	socket-handler	18 });
	socket-handler.js	19 } 20
	socket-handler.ts	<pre>21 pushNeighborhood(names:String[]) {</pre>
	▷ vendor	22 this.neighborhoods.push(
	index.html	23names.map(
	tourists-tripping.html	24 (name) => new Neighborhood(name) 25)

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D -	EXPLORE	tourists-tripping.html /src	∎ ß	×
ы О	 WORKING FILES TOURISTS-ON-A-TRIP 	1 <h1> 2 Tourists on a Trip 3 </h1>		
✓ ♦ ♦ ♦	 neighborhood-ha neighborhood.js neighborhood.ts neighborhood neighborhood neighborhood neighborhood socket-handler socket-handler.js socket-handler.ts vendor index.html 	<pre>4 4 5 <div *ng-for="#neighborhood of neighborhoods;" class="row"> 6 <div class="col-md-12"> 7 ModelValue: {{ neighborhood.TTAmount }} 8 <people-count (tt-amount]="neighborhood.setTTAmount(\$event.amount) 12 ></people-count> 13 </div> 14 </div> </pre></th><th>" 10="" 11="" 9="" <="" [tt-amount]="neighborhood.TTAmount" [tt-title]="neighborhood.name" th=""><th></th></people-count></div></div></pre>		
	tourists-tripping.html tourists-tripping.js tourists-tripping.ts typings angular2 angular2.d.ts es6-promise			

D <	EXPLORE	neighborhood-handler.ts /src/service/neighborhood-handler
ں	WORKING FILES	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference></pre>
Ω	▲ TOURISTS-ON-A-TRIP	<pre>2 import {Inject} from 'angular2/angular2';</pre>
	✓ component	<pre>3 import {Neighborhood} from './neighborhood'; 4 import {SocketHandler} from '//service/socket-handler/socket-handler';</pre>
•		5
�	people-count.h	6 export class NeighborhoodHandler {
	people-count.js	<pre>7 neighborhoods: Neighborhood[];</pre>
8	people-count.ts	8 socketHandler: SocketHandler;
-	✓ service	<pre>10 constructor(@Inject(SocketHandler) socketHandler: SocketHandler) {</pre>
	✓ neighborhood-ha	<pre>11 this.neighborhoods = [];</pre>
	neighborhood.js	<pre>12 this.socketHandler = socketHandler; 13</pre>
	neighborhood.ts	14 this.socketHandler.onUpdateNeighborhood((name, amount) => {
	neighborhood	15 var neighborhood: Neighborhood = this.neighborhoods.filter(
	neighborhood	16 (n) \Rightarrow n.name $==$ name
		17)[0];
	socket-handler	18 19 if (neighborhood) {
	socket-handler.js	<pre>19 if (neighborhood) { 20 neighborhood.setTTAmount(amount);</pre>
	socket-handler.ts	21 }
	▷ vendor	22 });
		23 }
	index.html	24
	tourists-tripping.html	<pre>25 pushNeighborhood(names:String[]) {</pre>

 neighborhood.js neighborhood.js neighborhood.is ineighborhood.is index.html tourists-tripping.is tourists-tripping.is tourists-tripping.is itourists-tripping.is itourists-triping.is itourists-tripping.is itour	Г	EXPLORE WORKING FILES 1 UNSA TOURISTS-ON-A-TRIP	 tourists-tripping.html /src 1 <h1></h1> 2 Tourists on a Trip 3 		ß	×
▷ es6-promise		neighborhood.ts neighborhood neighborhood neighborhood socket-handler socket-handler.js socket-handler.ts socket-handler.ts socket-handler.ts socket-handler.ts tourists-tripping.html tourists-tripping.js tourists-tripping.ts tourists-tripping.ts angular2.d.ts	<pre>5 <div *ng-for="#neighborhood of neighborhoods;" class="row"> 6 <div class="col-md-12"> 7 ModelValue: {{ neighborhood.TTAmount }} 8 <people-count (tt-amount_change)="updateNeighborhood(neighborhood, 12 ></people-count> 13 </div></pre></th><th><pre>\$event.d</pre></th><th>mount</th><th>E)" 10="" 11="" 9="" <="" [tt-amount]="neighborhood.TTAmount" [tt-title]="neighborhood.name" th=""></people-count></div></div></pre>			

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	▶ WORKING FILES 1 UNSA	15 class TouristsTrippingApp {		
Ω	TOURISTS-ON-A-TRIP	<pre>16 neighborhoods:Neighborhood ¹⁷ 17</pre>		
~	✓ neighborhood-ha…	<pre>18 constructor(neighborhoodHandler:NeighborhoodHandler) {</pre>		
	neighborhood.js	<pre>19 this.neighborhoods = neighborhoodHandler.neighborhoods;</pre>		
v	neighborhood.ts	20 21 neighborhoodHandler.pushNeighborhood(
	neighborhood	21 neighborhoodHandler.pushNeighborhood(22 'Central Amsterdam',		
8	neighborhood	23 'Red Light District',		
	✓ socket-handler	<pre>24 'Leidseplein', 25 'Oud Zuid'.</pre>		
	socket-handler.js	25 'Oud Zuid', 26 'Rembrandtplein',		
	socket-handler.ts	27 'Jordaan',		
	▶ vendor	28 'The Plantagebuurt', 29 'De Pijp'		
	index.html	29 'De Pijp' 30)		
	tourists-tripping.html	31 }		
	tourists-tripping.js	32 33 updateNeighborhood(neighborhood: Neighborhood, amount: Number) {		
	tourists-tripping.ts	34 34		
	✓ typings	35 }		
	⊿ angular2	36 37 }		
	angular2.d.ts	38 -		
	▷ es6-promise	39 bootstrap(TouristsTrippingApp);		

N	EXPLORE	• tourists-tripping.ts /src	II 🖄	×
	WORKING FILES 1 UNSA TOUDISTS ON A TRUD	<pre>15 class TouristsTrippingApp { 16 neighborhoods:Neighborhood[];</pre>		
Q	 TOURISTS-ON-A-TRIP neighborhood-ha 	<pre>17 neighborhoodHandler: NeighborhoodHandler; 18</pre>		
♦	neighborhood.js neighborhood.ts	<pre>19 constructor(neighborhoodHandler:NeighborhoodHandler) { 20 this.neighborhoodHandler = neighborhoodHandler; 21</pre>		
8	neighborhood neighborhood	this.neighborhoods = neighborhoodHandler.neighborhoods;		
	 socket-handler socket-handler.js 	<pre>24 neighborhoodHandler.pushNeighborhood(25 'Central Amsterdam', 26 'Red Light District', 27 Ileideerleiel</pre>		
	socket-handler.ts ▶ vendor index.html	<pre>27 'Leidseplein', 28 'Oud Zuid', 29 'Rembrandtplein',</pre>		
	tourists-tripping.html tourists-tripping.js	<pre>30 'Jordaan', 31 'The Plantagebuurt', 32 'De Pijp' 33)</pre>		
	tourists-tripping.ts	34 } 35		
	▲ typings ▲ angular2 angular2.d.ts	36 updateNeighborhood(neighborhood: Neighborhood, amount: Number) { 37 this.neighborhoodHandler.updateNeighborhood(neighborhood, amount)	ount);	
	es6-promise	38 } 39		

Ē.	EXPLORE	 neighborhood-handler.ts /src/service/neighborhood-handler 	හි	×	
 ♪ ♪ ◆ ⊗ 	EXPLORE WORKING FILES 2 UNSA TOURISTS-ON-A-TRIP I neighborhood-ha neighborhood.js neighborhood.ts neighborhood.ts Neighborhood A socket-handler socket-handler.js	<pre>13 14 this.socketHandler.onUpdateNeighborhood((name, amount) => { 15 var neighborhood: Neighborhood = this.neighborhoods.filte 16 (n) => n.name === name 17)[0]; 18 19 if (neighborhood) { 20 neighborhood.setTTAmount(amount); 21 } 22 }); 23 } 24</pre>	R	×	
	socket-handler.ts vendor index.html tourists-tripping.html tourists-tripping.js tourists-tripping.ts 4 typings angular2 angular2.d.ts 	<pre>25 pushNeighborhood(names:String[]) { 26 this.neighborhoods.push(27names.map(28 (name) => new Neighborhood(name) 29) 30); 31 } 32 updateNeighborhood(neighborhood: Neighborhood, amount: Number) { 34 35 } 36 }</pre>			

(EXPLORE	neighborhood-handler.ts /src/service/neighborhood-handler	ශ්	×
0	 WORKING FILES 1 UNSA TOURISTS-ON-A-TRIP 	13 14 this.socketHandler.onUpdateNeighborhood((name, amount) => { 15 var neighborhood: Neighborhood = this.neighborhoods.filter(
,~ ♦ ⊛	neighborhood-ha neighborhood.js neighborhood.ts neighborhood	<pre>16 (n) => n.name === name 17)[0]; 18 19 if (neighborhood) { 20 neighborhood.setTTAmount(amount); 21 }</pre>		
	neighborhood socket-handler socket-handler.js socket-handler.ts vendor index.html	<pre>22 }); 23 } 24 25 pushNeighborhood(names:String[]) { 26 this.neighborhoods.push(27names.map(28 (name) => new Neighborhood(name) </pre>		
	tourists-tripping.html tourists-tripping.js tourists-tripping.ts typings angular2	<pre>29) 30); 31 } 32 33 updateNeighborhood(neighborhood: Neighborhood, amount: Number) { 34 neighborhood.setTTAmount(amount); 35 this.socketHandler.updateNeighborhood(neighborhood.name, amount) 36 } </pre>		
	angular2.d.ts ▶ es6-promise	36 } 37 }		

			_	
C	EXPLORE	• tourists-tripping.ts /src	I Q	×
-1	• WORKING FILES 1 UNSA	<pre>1 /// <reference path="/typings/tsd.d.ts"></reference></pre>		
0	▲ TOURISTS-ON-A-TRIP	2 import {Component, View, bootstrap, NgFor} from 'angular2/angular2'; 3 import {NeighborhoodHandler} from 'service/neighborhood-handler/neighborhood	rhood-l	handl
\sim	✓ service	<pre>4 import {Neighborhood} from 'service/neighborhood-handler/neighborhood';</pre>		
	⊿ neighborhood-ha…	<pre>5 import {PeopleCount} from 'component/people-count/people-count';</pre>		
•	neighborhood.js	<pre>6 import {SocketHandler} from 'service/socket-handler/socket-handler';</pre>		
~	neighborhood.ts	<pre>8 @Component({</pre>		
8	neighborhood	<pre>9 selector: 'tourists-tripping-app',</pre>		
	neighborhood	10 appInjector: [NeighborhoodHandler, Socket:Handler]		
	✓ socket-handler	11 }) 12 @View({		
	socket-handler.js	<pre>13 templateUrl: 'tourists-tripping.html',</pre>		
	socket-handler.ts	14 directives: [NgFor, PeopleCount]		
	▷ vendor	15 }) 16 class TouristsTrippingApp {		
	index.html	<pre>16 class TouristsTrippingApp { 17 neighborhoods:Neighborhood[];</pre>		
	tourists-tripping.html	18 neighborhoodHandler: NeighborhoodHandler;		
	tourists-tripping.js	19		
	tourists-tripping.ts	<pre>20 constructor(neighborhoodHandler:NeighborhoodHandler) { 21 this.neighborhoodHandler = neighborhoodHandler;</pre>		
		22		
	▶ typings	23 this.neighborhoods = neighborhoodHandler.neighborhoods;		
	tsconfig.json	24		
	tsd.json	25 neighborhoodHandler.pushNeighborhood(L

I 🖄 tourists-tripping.ts /src × EXPLORE D WORKING FILES 35 } ▲ TOURISTS-ON-A-TRIP C updateNeighborhood(neighborhood: Neighborhood, amount: Number) { 37 ▲ neighborhood-ha... this.neighborhoodHandler.updateNeighborhood(neighborhood, amount); 38 } 39 neighborhood.js 40 neighborhood.ts 41 } neighborhood-... 42 (bootstrap(TouristsTrippingApp, [SocketHandler]); 43 neighborhood-... ▲ socket-handler socket-handler.js socket-handler.ts vendor index.html tourists-tripping.html tourists-tripping.js tourists-tripping.ts ▲ typings ▲ angular2 angular2.d.ts b ac6_promieo

← → C' fř 🗋 localhost:8080	🍬 🏠 🕼 🔏 🌆 📼 🎈 🗏	← → C fi 🗋 localhost:8080	🍬 🛧 🗅 🦧 JB 📅 📼 🌻 ≡
Tourists on a Trip ModelValue: 8 Central Amsterdam		Tourists on a Trip ModelValue: 8 Central Amsterdam	
How many Tourists on a trip do you see?		How many Tourists on a trip do you see? Value: 8	
REPORT		REPORT	
NodelValue: 78 Red Light District		ModelValue: 78	
How many Tourists on a trip do you see? Value: 78		How many Tourists on a trip do you see? Value: 78	
REPORT		REPORT	
fodelValue: 0		ModelValue: 0	
Leidseplein		Leidseplein	
How many Tourists on a trip do you see? Value: 0		How many Tourists on a trip do you see?	
REPORT		REPORT	

Convert this to ES5

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EXPLORE

- **WORKING FILES**
- ▲ TOURISTS-ON-A-TRIP
 - component
 - ▲ people-count
 - people-count.html people-count.ts
 - ✓ service
 - ▲ neighborhood-ha... neighborhood.ts

 - neighborhood-h...
 - socket-handler
 - socket-handler.ts
 - vendor
 - index.html tourists-tripping.html tourists-tripping.ts
 - typings
 - tsconfig.json
 - tsd.json





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    WORKING FILES 1 UNSA...
    * TOURISTS-ON-A-TRIP
    node_modules
    * src
    * component
    * people-count.html
    people-count.html
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▲ service
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▲ neighborhood-ha...

neighborhood.js

neighborhood-h...

▲ socket-handler

socket-handler.ts

vendor

index.html

tourists-tripping.html

tourists-tripping.ts

typings

```
• neighborhood.js /src/service/neighborhood-handler
1 function Neighborhood(name: String, TTAmount: Number = 0) {
2 this.name = name;
3 this.TTAmount = TTAmount;
4 }
5
6 Neighborhood.prototype.setTTAmount = function (value) {
7 this.TTAmount = parseFloat(value);
8 return this;
9 }
10
```

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EXPLORE

WORKING FILES 1 UNSA ...

▲ TOURISTS-ON-A-TRIP

node_modules

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▲ neighborhood-ha...

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▲ socket-handler

socket-handler.ts

▷ vendor

index.html

tourists-tripping.html

tourists-tripping.ts

typings

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                  • neighborhood.js /src/service/neighborhood-handler
                                                                                                        ×
                    1 function Neighborhood(name, TTAmount) {
                          this.name = name;
                          this.TTAmount = TTAmount || 0;
                    4 }
                      Neighborhood.prototype.setTTAmount = function (value) {
                          this.TTAmount = parseFloat(value);
                          return this:
                    9 }
                   10
people-count.ts
```



WORKING FILES 1 UNSA...

TOURISTS-ON-A-TRIP

✓ component

✓ people-count

people-count.html

people-count.ts

▲ service

neighborhood-ha...

neighborhood.js

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vendor

index.html

tourists-tripping.html

tourists-tripping.ts

typings

tsconfig.json

tsd.json

```
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    socket-handler.js /src/service/socket-handler

 1 function SocketHandler() {
        this.socket = io.connect("http://localhost:9898");
 3 }
  4
    SocketHandler.prototype.updateNeighborhood = function(name, TTAmount) {
        this.socket.emit('updateNeighborhoods', {
            [name]: TTAmount
        Ð;
   }
10
    SocketHandler.prototype.onUpdateNeighborhood = function(listener) {
        this.socket.on('updateNeighborhoods', (data) => {
11
12
            Object.keys(data).forEach((name) => listener(name, data[name]) );
        });
13
14 }
15
```



WORKING FILES 1 UNSA...

- ▲ TOURISTS-ON-A-TRIP
 - component
 - ▲ people-count
 - people-count.html

people-count.ts

▲ service

▲ neighborhood-ha…

neighborhood.js

neighborhood-h...

▲ socket-handler

socket-handler.js

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index.html

tourists-tripping.html tourists-tripping.ts

typings

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tsd.json

```
🗖 🔬
• socket-handler.js /src/service/socket-handler
 1 function SocketHandler() {
        this.socket = io.connect("http://localhost:9898");
 3 }
 4
    SocketHandler.prototype.updateNeighborhood = function(name, TTAmount) {
        var event = \{\};
        event[name] = TTAmount;
        this.socket.emit('updateNeighborhoods', {
            [name]: TTAmount
        });
10
11 }
    SocketHandler.prototype.onUpdateNeighborhood = function(listener) {
12
13
        this.socket.on('updateNeighborhoods', (data) => {
            Object.keys(data).forEach((name) => listener(name, data[name]) );
14
15
        3);
16 }
17
```



WORKING FILES 1 UNSA...

TOURISTS-ON-A-TRIP

▲ component

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tsd.json

```
🗖 🔬
• socket-handler.js /src/service/socket-handler
 1 function SocketHandler() {
        this.socket = io.connect("http://localhost:9898");
 3 }
    SocketHandler.prototype.updateNeighborhood = function(name, TTAmount) {
        var event = \{\};
        event[name] = TTAmount;
        this.socket.emit('updateNeighborhoods', event);
 9 }
    SocketHandler.prototype.onUpdateNeighborhood = function(listener) {
        this.socket.on('updateNeighborhoods', (data) => {
            Object.keys(data).forEach((name) => listener(name, data[name]) );
        });
14 }
```

```
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                                  socket-handler.js /src/service/socket-handler
                                                                                                                            ×
        EXPLORE
D
                                    1 function SocketHandler() {
      WORKING FILES
                                           this.socket = io.connect("http://localhost:9898");
      TOURISTS-ON-A-TRIP
                                    3 }
          component
                                    4
            ▲ people-count
                                      SocketHandler.prototype.updateNeighborhood = function(name, TTAmount) {
                                           var event = \{\};
               people-count.html
                                           event[name] = TTAmount;
               people-count.ts
                                           this.socket.emit('updateNeighborhoods', event);
                                    9 }
          ▲ service
                                   10
                                      SocketHandler.prototype.onUpdateNeighborhood = function(listener) {
            ▲ neighborhood-ha...
                                           this.socket.on('updateNeighborhoods', function(data) {
                                   11
               neighborhood.js
                                   12
                                               Object.keys(data).forEach(function(name) {
               neighborhood-h...
                                   13
                                                   listener(name, data[name]);
                                               };
                                   14
            ▲ socket-handler
                                   15
                                           3);
               socket-handler.js
                                   16 }
          vendor
                                   17
           index.html
           tourists-tripping.html
           tourists-tripping.ts
        typings
         tsconfig.json
         tsd.json
```

B	EXPLORE	neighborhood-handler.js /src/service/neighborhood-handler	E G	×
	 WORKING FILES 1 UNSA TOURISTS-ON-A-TRIP 	<pre>1 function NeighborhoodHandler(PInject(SocketHandler) socketHandler: S 2 this.neighborhoods = []; 3 this.socketHandler = socketHandler;</pre>	SocketHar	ndler)
~	⊿ src	4		
� ⊗	 component people-count people-count.html people-count.ts service neighborhood-ha 	<pre>5 this.socketHandler.onUpdateNeighborhood((name, amount) => { 6 var neighborhood: Neighborhood = this.neighborhoods.filter(7 (n) => n.name === name 8)[0]; 9 10 if (neighborhood) { 11 neighborhood.setTTAmount(amount); 12 } 13</pre>		
	neighborhood.js neighborhood-h	13 }); 14 } 15		
	▲ socket-handler	<pre>16 pushNeighborhood(names:String[]) {</pre>		
	socket-handler.js	17 this.neighborhoods.push(
	▶ vendor	<pre>18names.map(19 (name) => new Neighborhood(name)</pre>		
	index.html	20)		
	tourists-tripping.html	21);		
	tourists-tripping.ts	22 }		
	▶ typings	23 24 updateNeighborhood(neighborhood: Neighborhood, amount: Number) {		
	tsconfig.json	<pre>25 neighborhood.setTTAmount(amount);</pre>		











▲ service

✓ neighborhood-ha…
neighborhood.js

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WORKING FILES 1 UNSA...

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people-count.ts

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✓ component

neighborhood-h... ▲ socket-handler socket-handler.js

▷ vendor

index.html

tourists-tripping.html

tourists-tripping.ts

typings

tsconfig.json

```
• neighborhood-handler.js /src/service/neighborhood-handler
    NeighborhoodHandler.parameters = [
        [SocketHandler]
   ];[
 4 function NeighborhoodHandler(socketHandler) {
        this.neighborhoods = [];
        this.socketHandler = socketHandler;
        this.socketHandler.onUpdateNeighborhood((name, amount) => {
            var neighborhood: Neighborhood = this.neighborhoods.filter(
10
                 (n) \Rightarrow n.name === name
            )[0];
11
12
13
            if (neighborhood) {
14
                neighborhood.setTTAmount(amount);
15
            3
16
        };
17 }
18
19
    pushNeighborhood(...names:String[]) {
20
        this.neighborhoods.push(
21
            ...names.map(
22
                 (name) => new Neighborhood(name)
23
            )
24
        );
25
```

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✓ component

TOURISTS-ON-A-TRIP



people-count.ts

▲ people-count

WORKING FILES 1 UNSA...

- ▲ service
 - ▲ neighborhood-ha...

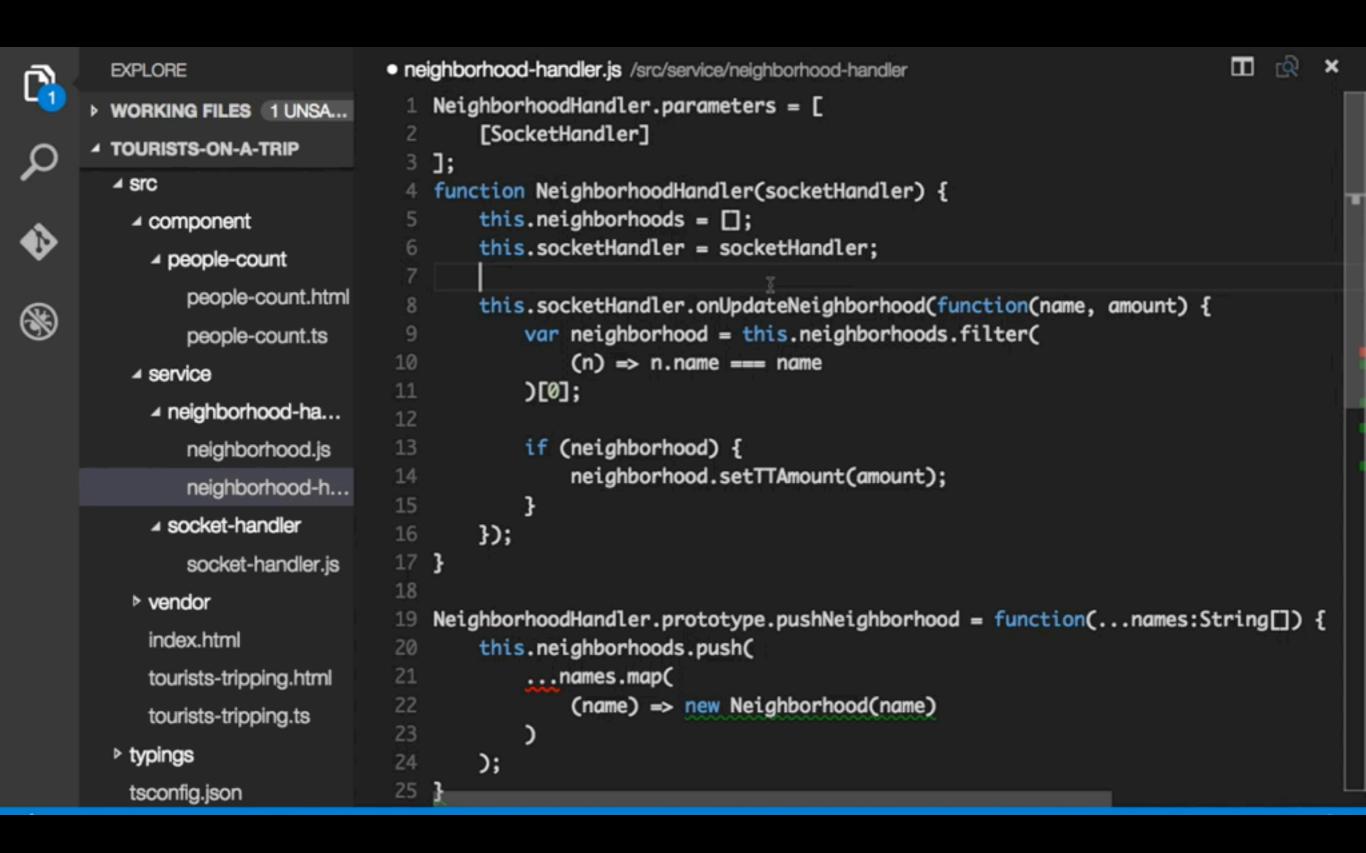
people-count.html

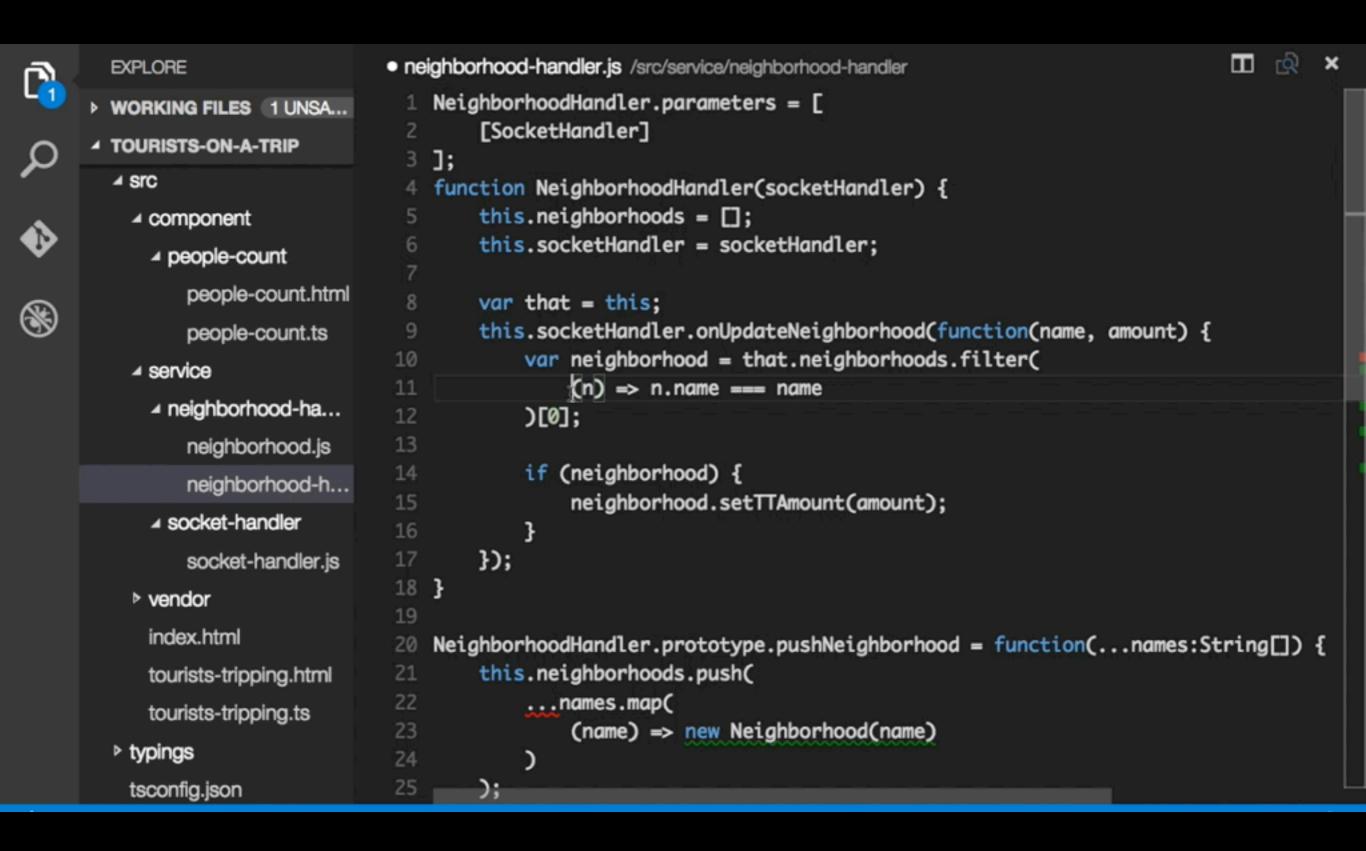
neighborhood.js neighborhood-h... 13

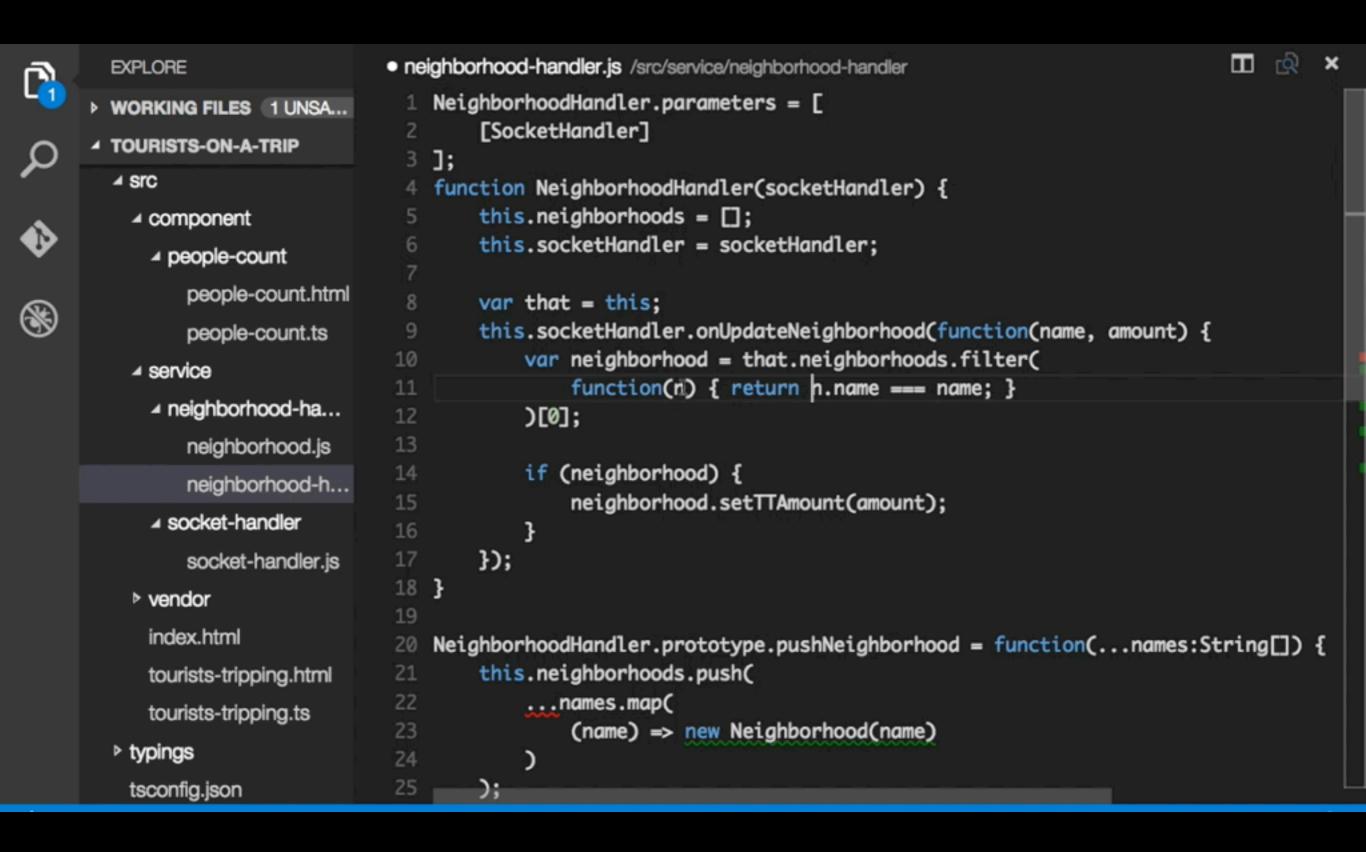
- ▲ socket-handler
- socket-handler.js
- ▷ vendor
- index.html
- tourists-tripping.html
- tourists-tripping.ts
- typings

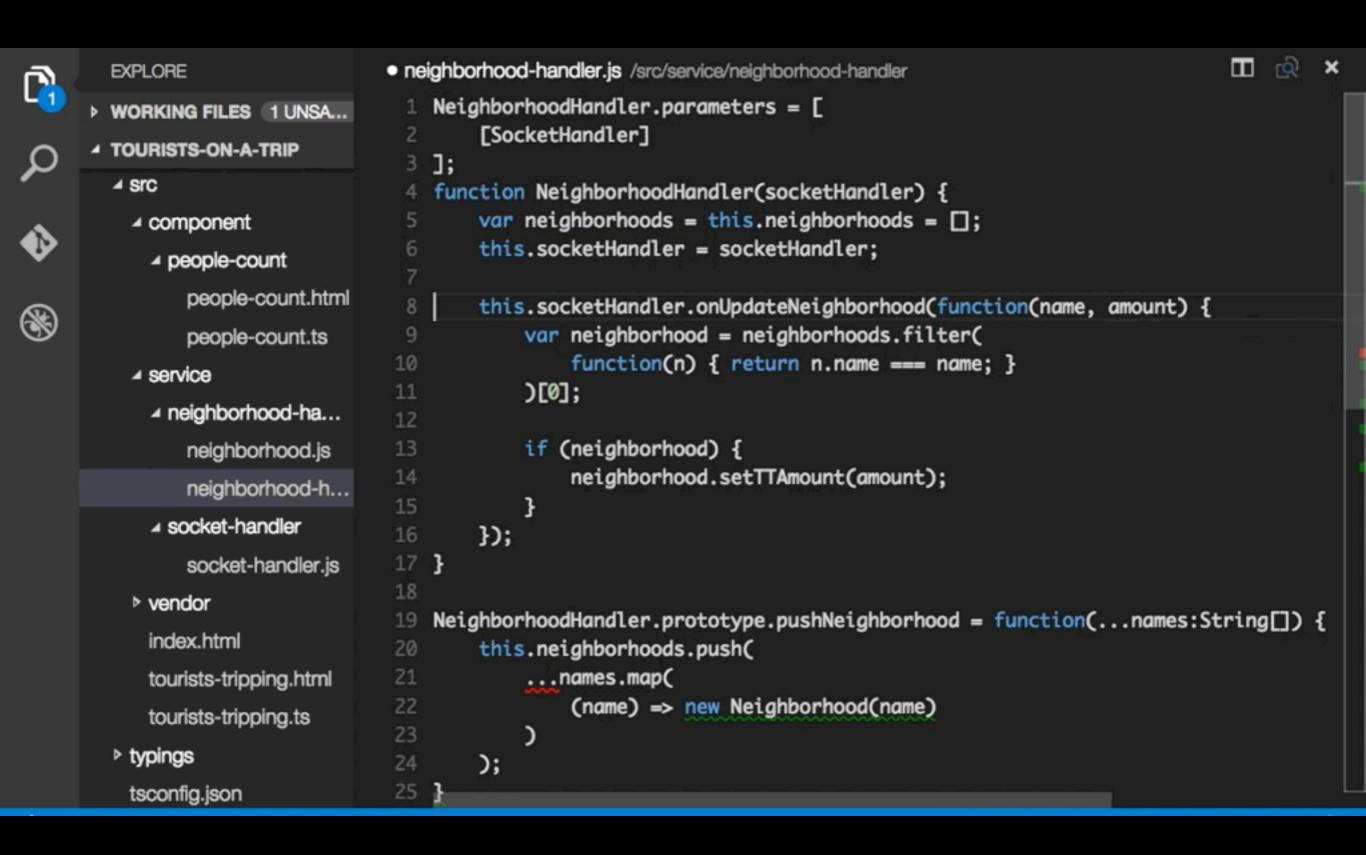
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                                                                              • neighborhood-handler.js /src/service/neighborhood-handler
                                                                                      ×
    NeighborhoodHandler.parameters = [
        [SocketHandler]
 3 ];
 4 function NeighborhoodHandler(socketHandler) {
        this.neighborhoods = [];
        this.socketHandler = socketHandler;
        this.socketHandler.onUpdateNeighborhood((name, amount) => {
            var neighborhood: Neighborhood = this.neighborhoods.filter(
10
                 (n) \Rightarrow n.name === name
            )[0];
11
12
            if (neighborhood) {
                neighborhood.setTTAmount(amount);
14
15
            }
16
        3);
17 }
18
19
    NeighborhoodHandler.prototype.pushNeighborhood = function(...names:String[]) {
20
        this.neighborhoods.push(
21
            ...names.map(
22
                 (name) => new Neighborhood(name)
23
            )
24
        );
25
```

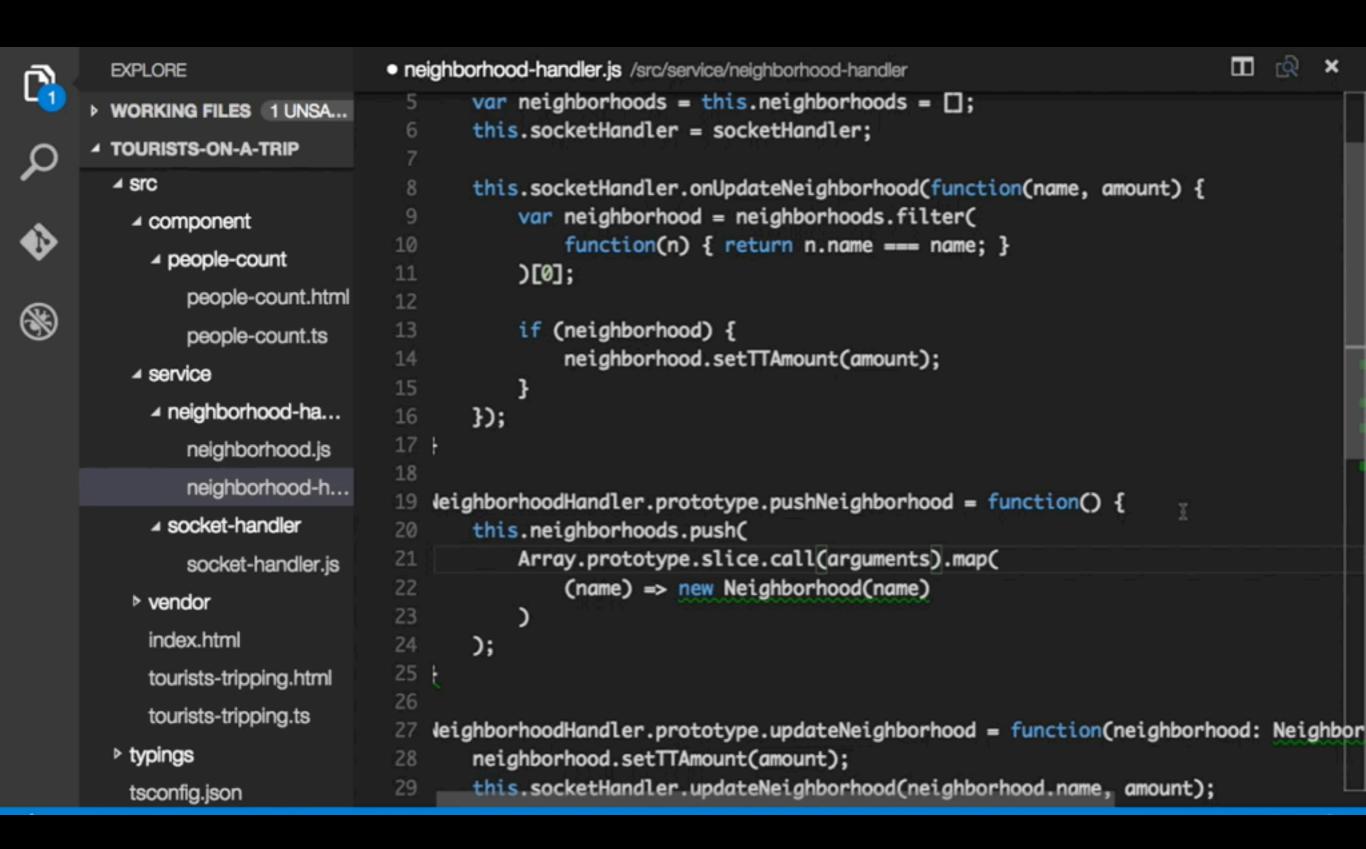
tsconfig.json



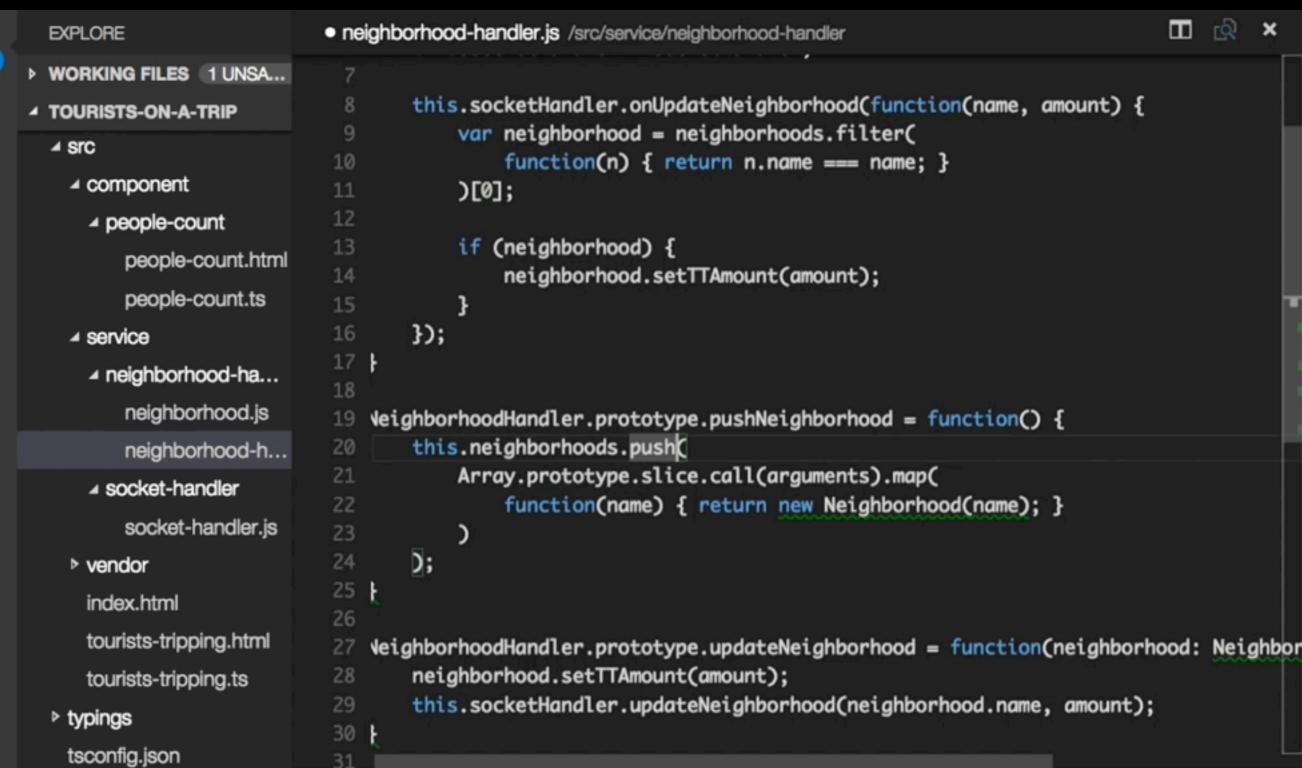


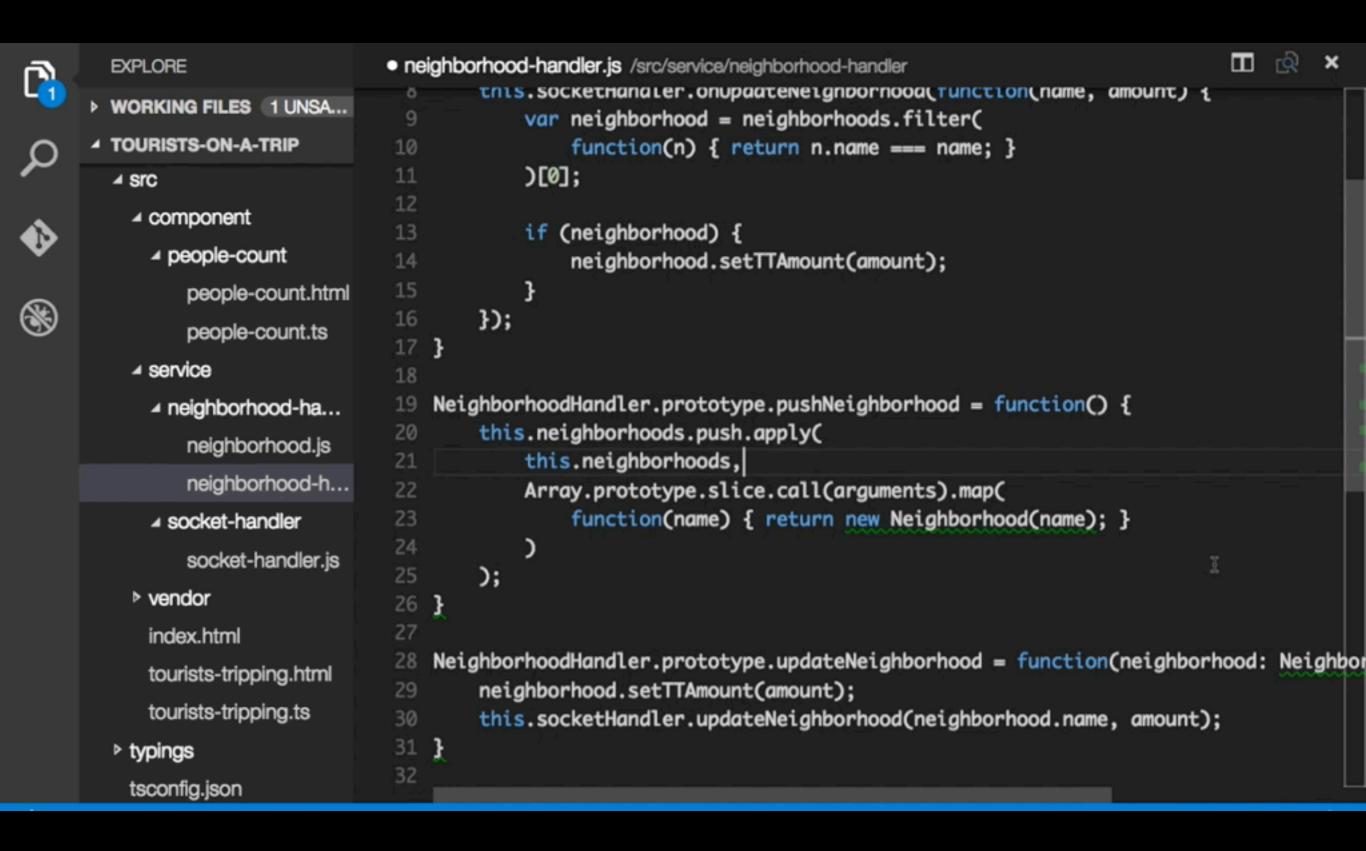






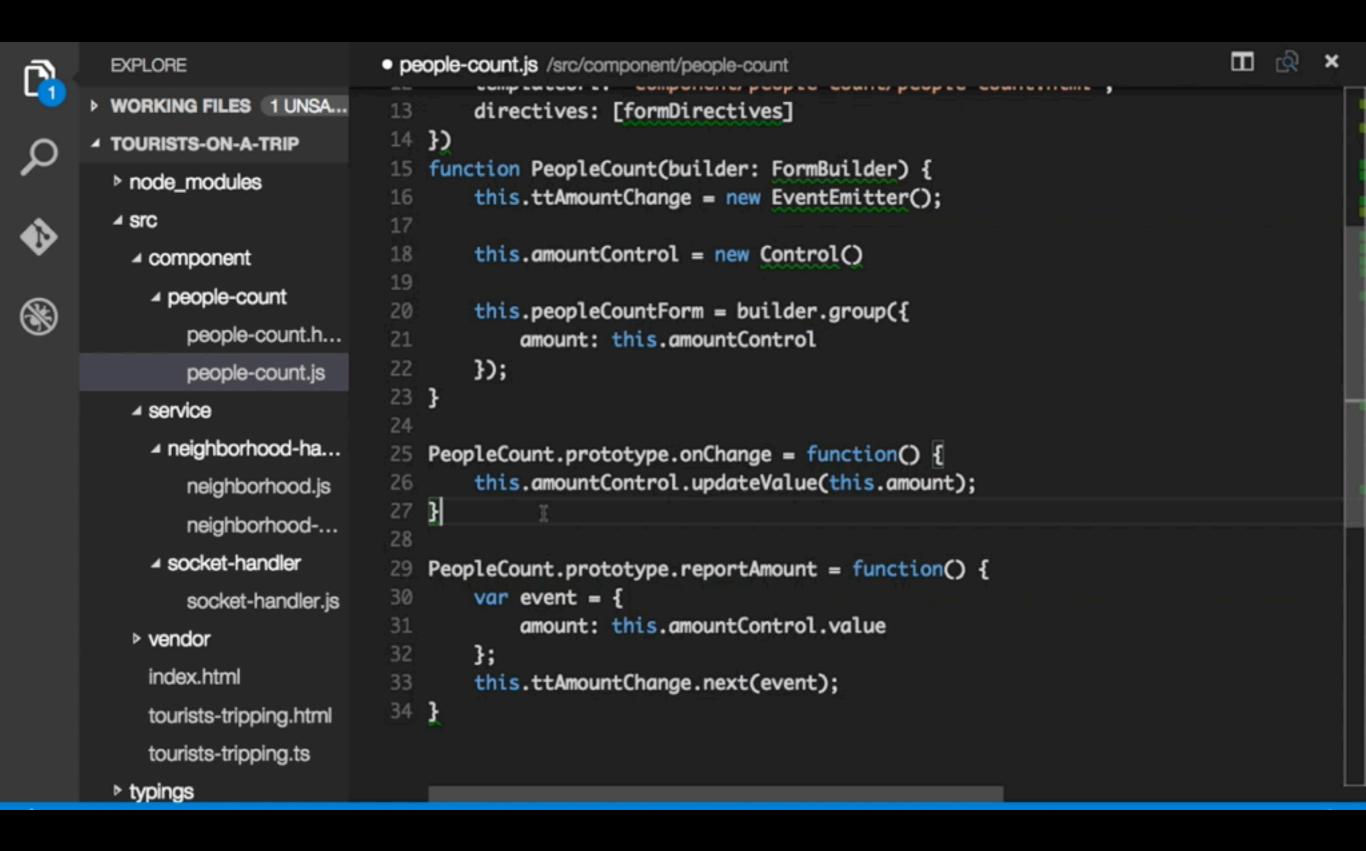






D ·	EXPLORE	neighborhood-handler.js /src/service/neighborhood-handler	ଜ	×
ہ م	 WORKING FILES TOURISTS-ON-A-TRIP 	<pre>10 function(n) { return n.name === name; } 11)[0]; 12</pre>		
¢	 ✓ src ✓ component ✓ people-count 	<pre>if (neighborhood) { neighborhood.setTTAmount(amount); } }</pre>		
8	people-count.html people-count.ts service neighborhood-ha neighborhood.js	<pre>17 } 18 19 NeighborhoodHandler.prototype.pushNeighborhood = function() { 20 this.neighborhoods.push.apply(21 this.neighborhoods, 22 Array.prototype.slice.call(arguments).map(23 function(name) { return new Neighborhood(name); }</pre>		
	neighborhood-h socket-handler socket-handler.js vendor index.html tourists-tripping.html tourists-tripping.ts	<pre>24) 25); 26 } 27 28 NeighborhoodHandler.prototype.updateNeighborhood = function(neighborhood, 29 neighborhood.setTTAmount(amount); 30 this.socketHandler.updateNeighborhood(neighborhood.name, amount); 31 } 32</pre>	amou	int)
	typings tsconfig.json			

D <	EXPLORE	people-count.ts /src/component/people-count	∎ & ×
س	WORKING FILES	<pre>1 /// <reference path="//typings/tsd.d.ts"></reference></pre>	F
Q	▲ TOURISTS-ON-A-TRIP	2 import {Component, View, Control, ControlGroup, FormBuilder, 3	formDirectives, onCha
~	⊿ src	4 @Component({	
•	⊿ component	<pre>5 selector: 'people-count',</pre>	
•>	✓ people-count	<pre>6 properties: ['title: tt-title', 'amount: tt-amount'], 7 appInjector: [FormBuilder],</pre>	
	people-count.h	8 lifecycle: [onChange],	
8	people-count.ts	9 events: ['ttAmountChange']	
	✓ service	10 })	
	✓ neighborhood-ha	<pre>11 @View({ 12 templateUrl: 'component/people-count/people-count.html',</pre>	
	neighborhood.js	13 directives: [formDirectives]	
	neighborhood	<pre>14 }) 15 export class PeopleCount{</pre>	
	✓ socket-handler	16 title: String;	
	socket-handler.js	17 amount: Number;	
	▷ vendor	<pre>18 19 ttAmountChange: EventEmitter;</pre>	
	index.html	20	
	tourists-tripping.html	21 amountControl: Control;	
	tourists-tripping.ts	<pre>22 peopleCountForm: ControlGroup; 23 constructor(builder: FormBuilder) {</pre>	
	▷ typings	<pre>24 this.ttAmountChange = new EventEmitter();</pre>	
	tsconfig.json	25	



C	EXPLORE	people-count.js /src/component/people-count	Η	ୟ	3
L ₁	• WORKING FILES 1 UNSA	<pre>1 PeopleCount.annotations = [</pre>			
0	▲ TOURISTS-ON-A-TRIP	<pre>2 new angular.ComponentAnnotation({ 2</pre>			
Q	▹ node_modules	3 selector: 'people-count', 4 properties: ['title: tt-title', 'amount: tt-amount'],			
•	⊿ src	5 appInjector: [FörmBuilder],			
€	✓ component	<pre>6 lifecycle: [onChange], 7 events: ['ttAmountChange']</pre>			
	⊿ people-count	8 }),			
8	people-count.h	<pre>9 new angular.ViewAnnotation({</pre>			
	people-count.js	<pre>10 templateUrl: 'component/people-count/people-count.html',</pre>			
		<pre>11 directives: [formDirectives] 12 })</pre>			
	✓ neighborhood-ha	13];			
	neighborhood.js	<pre>14 function PeopleCount(builder: FormBuilder) { 15 this.ttAmountChange = new EventEmitter();</pre>			
	neighborhood	16			
	socket-handler	17 this.amountControl = new Control()			
	socket-handler.js	18			
	▷ vendor	<pre>19 this.peopleCountForm = builder.group({ 20 amount: this.amountControl</pre>			
	index.html	21 });			
	tourists-tripping.html	22 } 23			
	tourists-tripping.ts	<pre>24 PeopleCount.prototype.onChange = function() {</pre>			
	▶ typings	<pre>25 this.amountControl.updateValue(this.amount);</pre>			

C <mark>1</mark>	EXPLORE	people-count.js /src/component/people-count	II 🙆
L1	WORKING FILES 1 UNSA	<pre>1 PeopleCount.annotations = [</pre>	
\sim	▲ TOURISTS-ON-A-TRIP	<pre>2 new angular.ComponentAnnotation({</pre>	
م ا	hode_modules	3 selector: 'people-count', 4 properties: ['title: tt-title', 'amount: tt-amount'], 5 appInjector: [angular.FormBuilder],	
�	 ✓ src ✓ component 	 6 lifecycle: [angular.onChange], 7 events: ['ttAmountChange'] 	
	⊿ people-count	8 }),	
8	people-count.h	<pre>9 new angular.ViewAnnotation({</pre>	
	people-count.js	<pre>10 templateUrl: 'component/people-count/people-count.html', 11 dimonstrivers. Ferrylan formDimonstrivers]</pre>	
	✓ service	<pre>11 directives: [angular.formDirectives] 12 })</pre>	
	neighborhood-ha neighborhood.js neighborhood	<pre>13]; 14 function PeopleCount(builder: angular.FormBuilder) { 15 this.ttAmountChange = new angular.EventEmitter(); 16</pre>	
	✓ socket-handler	17 this.amountControl = new angular.Control()	
	socket-handler.js ▶ vendor	<pre>18 19 this.peopleCountForm = builder.group({ 20 amount: this.amountControl</pre>	
	index.html	21 });	
	tourists-tripping.html	22 } 23	
	tourists-tripping.ts	<pre>24 PeopleCount.prototype.onChange = function() {</pre>	
	▶ typings	<pre>25 this.amountControl.updateValue(this.amount);</pre>	

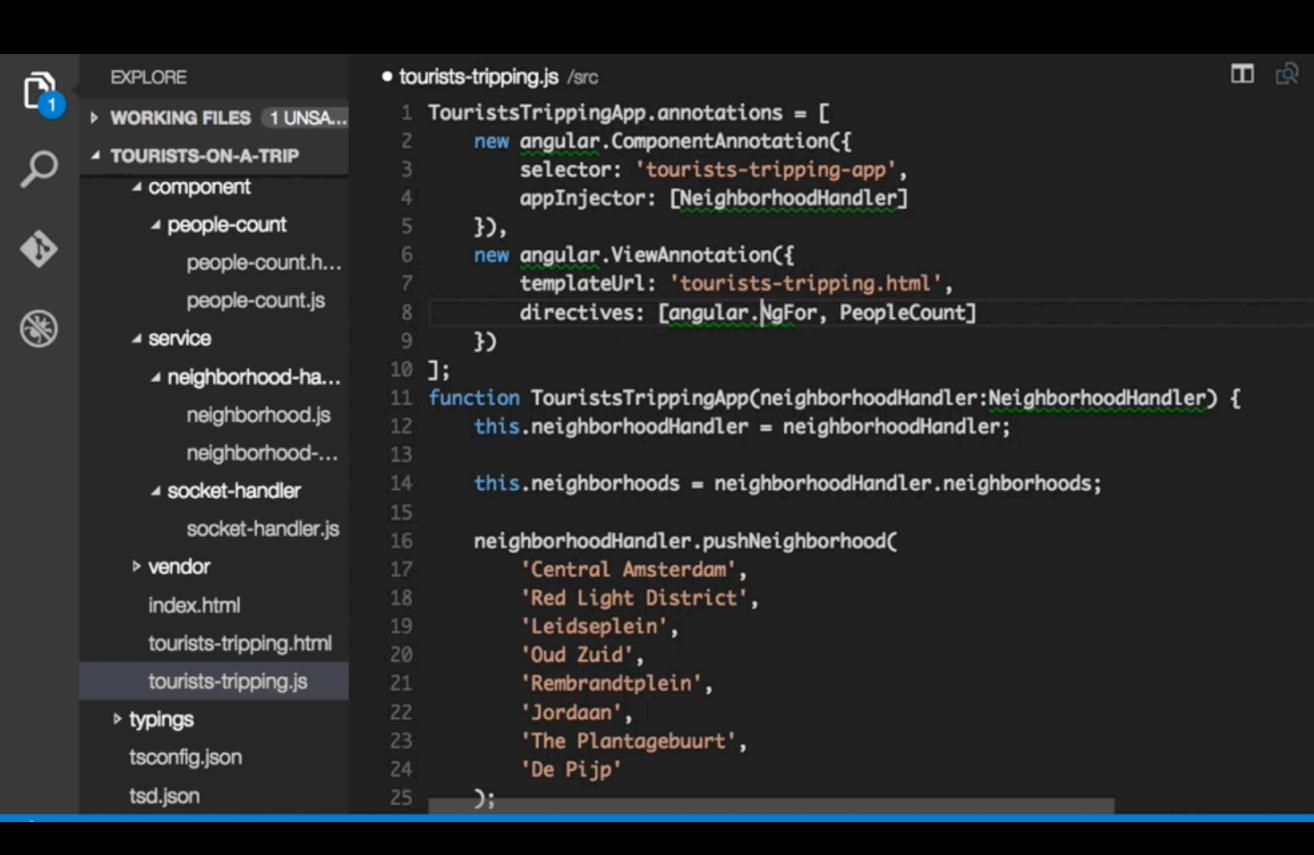
3	EXPLORE	people-count.js /src/component/people-count	ඟි	×
ונ ר	 WORKING FILES TOURISTS-ON-A-TRIP 	<pre>1 PeopleCount.annotations = [2 new angular.ComponentAnnotation({</pre>		
>	 ▶ node_modules ▲ src ▲ component 	<pre>3 selector: 'people-count', 4 properties: ['title: tt-title', 'amount: tt-amount'], 5 appInjector: [angular.FormBuilder], 6 lifecycle: [angular.onChange], 7 events: ['ttAmountChange']</pre>		
•	people-count people-count.h people-count.js	<pre>8 }), 9 new angular.ViewAnnotation({ 10 templateUrl: 'component/people-count/people-count.html',</pre>		
	 ✓ service ✓ neighborhood-ha neighborhood.js 	<pre>11 directives: [angular.formDirectives] 12 }) 13]; 14 PeopleCount.parameters = [15 [angular.FormBuilder]</pre>		
	neighborhood 4 socket-handler socket-handler.js	<pre>16]; 17 function PeopleCount(builder) { 18 this.ttAmountChange = new angular.EventEmitter(); 19</pre>		
	vendor index.html	<pre>20 this.amountControl = new angular.Control() 21</pre>		
	tourists-tripping.html tourists-tripping.ts	<pre>22 this.peopleCountForm = builder.group({ 23 amount: this.amountControl 24 }); 25 </pre>		
	b typings	25 }		

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C	EXPLORE	• tourists-tripping.js /src	
L1	WORKING FILES 1 UNSA	1 @Component({	
Q	▲ TOURISTS-ON-A-TRIP	<pre>2 selector: 'tourists-tripping-app', 3 appInjector: [NeighborhoodHandler]</pre>	
~		4 })	
	⊿ people-count	5 @View({	
�	people-count.h	<pre>6 templateUrl: 'tourists-tripping.html', 7 directives: [NgFor, PeopleCount]</pre>	
\sim	people-count.js	8 })	
8	✓ service	9 function TouristsTrippingApp(neighborhoodHandler:NeighborhoodHandler)) {
	✓ neighborhood-ha…	<pre>10 this.neighborhoodHandler = neighborhoodHandler;</pre>	
	neighborhood.js	11 12 this.neighborhoods = neighborhoodHandler.neighborhoods;	
	neighborhood	13	
	✓ socket-handler	14 neighborhoodHandler.pushNeighborhood(
	socket-handler.js	<pre>15 'Central Amsterdam', 16 'Red Light District',</pre>	
	▷ vendor	17 'Leidseplein',	
	index.html	18 'Oud Zuid',	
	tourists-tripping.html	19 'Rembrandtplein',	
		20 'Jordaan',	
	tourists-tripping.js	21 'The Plantagebuurt',	
	▷ typings	22 'De Pijp'	
	tsconfig.json	23); 24 }	
	tsd.json	25	

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ā	EXPLORE	tourists-tripping.js /src	표 없	×	
D p	 WORKING FILES TOURISTS-ON-A-TRIP component people-count 	<pre>1 TouristsTrippingApp.annotations = [2 new angular.ComponentAnnotation({ 3 selector: 'tourists-tripping-app', 4 appInjector: [NeighborhoodHandler] 5 }),</pre>			
♦⊗	people-count.h people-count.js service neighborhood-ha	<pre>6 new angular.ViewAnnotation({ 7 templateUrl: 'tourists-tripping.html', 8 directives: [angular.NgFor, PeopleCount] 9 }) 10]; 11 TouristsTrippingApp.parameters = [</pre>			
	neighborhood.js neighborhood 4 socket-handler socket-handler.js	<pre>12 [NeighborhoodHandler] 13]; 14 function TouristsTrippingApp(neighborhoodHandler) { 15 this.neighborhoodHandler = neighborhoodHandler; </pre>			
	 vendor index.html tourists-tripping.html 	<pre>16 17 this.neighborhoods = neighborhoodHandler.neighborhoods; 18 19 neighborhoodHandler.pushNeighborhood(20 'Central Amsterdam',</pre>			
	tourists-tripping.js typings tsconfig.json tsd.json	<pre>21 'Red Light District', 22 'Leidseplein', 23 'Oud Zuid', 24 'Rembrandtplein', 25 'Jordaan',</pre>			

C)	EXPLORE	tourists-tripping.js /src	0 0	××
بن م	 WORKING FILES TOURISTS-ON-A-TRIP 	<pre>20 'Central Amsterdam', 21 'Red Light District', 22 'Leidseplein',</pre>		
≁ ♦ ⊛	 component people-count people-count.h people-count.js service 	<pre>23 'Oud Zuid', 24 'Rembrandtplein', 25 'Jordaan', 26 'The Plantagebuurt', 27 'De Pijp' 28);</pre>		
	 ▲ neighborhood-ha neighborhood.js neighborhood ▲ socket-handler socket-handler.js ▶ vendor index.html 	<pre>29 } 30 31 TouristsTrippingApp.prototype.updateNeighborhood = function(neighborhoo 32 this.neighborhoodHandler.updateNeighborhood(neighborhood, amount); 33 } 34 35 [36 bootstrap(TouristsTrippingApp, [SocketHandler]);</pre>	d, a	mount)
	tourists-tripping.html tourists-tripping.js typings tsconfig.json tsd.json			

0	EXPLORE	tourists-tripping.js /src] ල්	×
ہت م	 WORKING FILES TOURISTS-ON-A-TRIP 	20 'Central Amsterdam', 21 'Red Light District', 22 'Leideerleir'		
, , ⊗	 component people-count people-count.h people-count.js service 	<pre>22 'Leidseplein', 23 'Oud Zuid', 24 'Rembrandtplein', 25 'Jordaan', 26 'The Plantagebuurt', 27 'De Pijp' 28);</pre>		
	 ▲ neighborhood-ha neighborhood.js neighborhood ▲ socket-handler socket-handler.js ▶ vendor 	<pre>29 } 30 31 TouristsTrippingApp.prototype.updateNeighborhood = function(neighborhood 32 this.neighborhoodHandler.updateNeighborhood(neighborhood, amount); 33 } 34 35 document.addEventListener('DOMContentLoaded', function() { 36 angular.bootstrap(TouristsTrippingApp, [SocketHandler]); 37 38 39 39 30 30 30 30 30 30 30 30 30 30 30 30 30</pre>	l, am	ount)
	index.html tourists-tripping.html tourists-tripping.js ▶ typings tsconfig.json tsd.json	<pre>36 angular.bootstrap(TouristsTrippingApp, [SocketHandler]); 37 });</pre>		

		entrational data to the second s
b	EXPLORE	• index.html /src
	WORKING FILES 1 UNSA	1 html
ρ	▲ TOURISTS-ON-A-TRIP	2 <html> 3 <head></head></html>
		4 <title>Tourists on a Trip</title>
•		5 link href="/vendor/bootstrap.min.css" rel="stylesheet">
•	people-count.h	<pre>6 <link href="/vendor/material-fullpalette.css" rel="stylesheet"/></pre>
.	people-count.js	<pre>7 <script src="/vendor/traceur-runtime.js"></script> 8 <script src="/vendor/system@0.16.11.js"></script></pre>
8	✓ service	<pre>9 <script src="/vendor/angular2.sfx.dev.js"></script></pre>
	✓ neighborhood-ha	<pre>10 <script src="http://localhost:9898/socket.io/socket.io.js"></script></pre>
	neighborhood.js	11
		12 <body></body>
	neighborhood	<pre>13 <tourists-tripping-app></tourists-tripping-app></pre>
	socket-handler	14
	socket-handler.js	15 <script></th></tr><tr><th></th><th></th><th><pre>16 System.import('tourists-tripping');</pre></th></tr><tr><th></th><th>▷ vendor</th><th>17 </script>
	index.html	18
	tourists-tripping.html	19
	tourists-tripping.js	
	▹ typings	
	tsconfig.json	
	tsd.json	

C	EXPLORE	• index.html /src	
-1	WORKING FILES 1 UNSA	1 html	
ρ	▲ TOURISTS-ON-A-TRIP	2 <html> 3 <head></head></html>	
\sim		4 <title>Tourists on a Trip</title>	
•	✓ people-count	5 k href="/vendor/bootstrap.min.css" rel="stylesheet">	
₽	people-count.h	<pre>6 <link href="/vendor/material-fullpalette.css" rel="stylesheet"/></pre>	
		<pre>7 <script src="/vendor/traceur-runtime.js"></script></pre>	
Ð	people-count.js	<pre>8 <script src="/vendor/system@0.16.11.js"></script></pre>	
8	✓ service	<pre>9 <script src="/vendor/angular2.sfx.dev.js"></script><th></th></pre>	
	▲ neighborhood-ha	<pre>10 <script src="http://localhost:9898/socket.io/socket.io.js"></script><th></th></pre>	
	neighborhood.js		
		<pre>12 <script src="/component/people-count/people-count.js"></script></pre>	
	neighborhood	<pre>13 <script src="/service/socket-handler/socket-handler.js"></script><!--</th--><th></th></pre>	
	socket-handler	14 <script src="/service/neighborhood-handler/neighborhood.js"></script>	
	socket-handler.js	15 <script src="/service/neighborhood-handler/neighborhood-handler.js"></sc</th><th>r</th></tr><tr><th></th><th></th><th>16 <script src="/tourists-tripping.js"></script>	
	▷ vendor	17	
	index.html	18 <body></body>	
	tourists-tripping.html	19 <tourists-tripping-app></tourists-tripping-app>	
		20	
	tourists-tripping.js	21 <script></th><th></th></tr><tr><th></th><th>▷ typings</th><th><pre>22 System.import('tourists-tripping');</pre></th><th></th></tr><tr><th></th><th>tsconfig.json</th><th>23 </script>	
		24	
	tsd.json	25	

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ינ	WORKING FILES	1 html		
0	▲ TOURISTS-ON-A-TRIP	2 <html> 3 <head></head></html>		
		4 <title>Tourists on a Trip</title>		
	⊿ people-count	5 link href="/vendor/bootstrap.min.css" rel="stylesheet">		
	people-count.h	<pre>6 <link href="/vendor/material-fullpalette.css" rel="stylesheet"/> </pre>	ink>	
_	people-count.js	<pre>7 <script src="/vendor/traceur-runtime.js"></script> 8 <script src="/vendor/system@0.16.11.js"></script></pre>		
8	✓ service	<pre>9 <script src="/vendor/angular2.sfx.dev.js"></script><th></th><th></th></pre>		
	⊿ neighborhood-ha…	<pre>10 <script src="http://localhost:9898/socket.io/socket.io.js"></script</pre></th><th>t></th><th></th></tr><tr><th></th><th>neighborhood.js</th><th><pre>11 12 <script src="/component/people-count/people-count.js"></script><</pre>		
	neighborhood	<pre>13 <script src="/service/socket-handler/socket-handler.js"></script><!--</th--><th></th><th></th></pre>		
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	▷ vendor	17		
	index.html	18 <body></body>		
	tourists-tripping.html	<pre>19 <tourists-tripping-app></tourists-tripping-app> 20 </pre>		
	tourists-tripping.js	20 //bdg > 21 //html >		
	▶ typings			
	tsconfig.json			
	tsd.json			

Convert to NG1

- WORKING FILES
- TOURISTS-ON-A-TRIP
 - ✓ SIC
 - component
 - ▲ people-count
 - people-count.html
 - people-count.js
 - ▲ service
 - neighborhood-handler
 neighborhood.js
 -
 - neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
 - vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - typings
 - tsconfig.json

```
tourists-tripping.js /src
  1 TouristsTrippingApp.annotations = [
        new angular.ComponentAnnotation({
            selector: 'tourists-tripping-app',
            appInjector: [NeighborhoodHandler]
        3),
        new angular.ViewAnnotation({
            templateUrl: 'tourists-tripping.html',
            directives: [angular.NgFor, PeopleCount]
        Ð
10 ];
    TouristsTrippingApp.parameters = [
 11
12
        [NeighborhoodHandler]
13 ];
14 function TouristsTrippingApp(neighborhoodHandler) {
        this.neighborhoodHandler = neighborhoodHandler;
15
16
17
        this.neighborhoods = neighborhoodHandler.neighborhoods;
18
19
        neighborhoodHandler.pushNeighborhood(
            'Central Amsterdam',
20
            'Red Light District',
21
22
            'Leidseplein',
23
            'Oud Zuid',
            'Rembrandtplein',
24
25
            'Jordaan'.
```

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EXPLORE

- WORKING FILES
- ▲ TOURISTS-ON-A-TRIP
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 - ∡ component
 - ▲ people-count
 - people-count.html

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- people-count.js
- ▲ service
 - neighborhood-handler
 - neighborhood.js
 - neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
- vendor
 - index.html
- tourists-tripping.html tourists-tripping.js
- ▹ typings
 - tsconfig.json

de	x.html /src	Π	ୟ	×
	html <html></html>			
3	<head></head>			
4	<title>Tourists on a Trip</title>			
5	<pre><link <="" href="/vendor/bootstrap.min.css" pre="" rel="styles"/></pre>	heet"	'> 1</td <td>.ink</td>	.ink
6	<pre><link href="/vendor/material-fullpalette.css" rel="</pre"/></pre>	"styl	eshe	et">
7	<pre><script src="/vendor/traceur-runtime.js"></script></pre>			
8	<pre><script src="/vendor/system@0.16.11.js"></script></pre>			
9	<script src="/vendor/angular-1.4.0.js"></script>			
10	<pre><script src="http://localhost:9898/socket.io/socket</pre></th><td><u>t.io.</u></td><td><u>js</u>"></td><td>-</sc</td></tr><tr><th>11</th><th></th><td></td><td></td><td></td></tr><tr><th>12</th><th><pre><script src="/component/people-count/people-count.</pre></th><td><u>js</u>"><</td><td></scr</td><td>'ipt></td></tr><tr><th>13</th><th><pre><script src="/service/socket-handler/socket-handle</pre></th><td><u>r.js</u>"</td><td>'></s</td><td>crip</td></tr><tr><th>14</th><th><pre><script src="/service/neighborhood-handler/neighbo</pre></th><td>rhood</td><td><u>1. js</u>"</td><td>'></s</td></tr><tr><th>15</th><th><pre><script src="/service/neighborhood-handler/neighbo</pre></th><td>rhood</td><td>l-har</td><td>ndler</td></tr><tr><th>16</th><th><script src="/tourists-tripping.js"></script></pre>			
17				
18	<body></body>			
19	<tourists-tripping-app></tourists-tripping-app>			
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- WORKING FILES
- ▲ TOURISTS-ON-A-TRIP
 - ▲ src
 - component
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 - people-count.js
 - ▲ service
 - neighborhood-handler
 - neighborhood.js
 - neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
 - vendor
 - index.html tourists-tripping.html tourists-tripping.js
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 - typings tsconfig.json

inde	k.html /src 🗖 🗟 🗙
1	html
2	<html></html>
3	<head></head>
4	<title>Tourists on a Trip</title>
5	<link href="/vendor/bootstrap.min.css" rel="stylesheet"/>
6	<link href="/vendor/material-fullpalette.css" rel="stylesheet"/>
7	<script src="/vendor/traceur-runtime.js"></script>
8	<pre><script src="/vendor/system@0.16.11.js"></script></pre>
9	<script src="/vendor/angular-1.4.0.js"></script>
10	<script src="<u>http://localhost:9898/socket.io/socket.io.js</u>"></s</td></tr><tr><td>11</td><td></td></tr><tr><td>12</td><td><script src="/tourists-tripping.js"></script>
13	<pre><script src="/component/people-count/people-count.js"></script</pre></td></tr><tr><td>14</td><td><script src="/service/socket-handler/socket-handler.js"></script</td></tr><tr><td>15</td><td><pre><script src="/service/neighborhood-handler/neighborhood.js"></service/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js"></service/neighborhood-handler/neighborhood.js</service/neighborhood-handler/neighborhood.js</pre></td></tr><tr><td>16</td><td><script src="/service/neighborhood-handler/neighborhood-handle</td></tr><tr><td>17</td><td></head></td></tr><tr><td>18</td><td><body></td></tr><tr><td>19</td><td><tourists-tripping-app></tourists-tripping-app></td></tr><tr><td>20</td><td></body></td></tr><tr><td>21</td><td></html></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table></script></pre>



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▲ SIC

∡ component

▲ people-count

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people-count.js

▲ service

neighborhood-handler neighborhood.js

neighborhood-handler.js

▲ socket-handler

socket-handler.js

▷ vendor

index.html

tourists-tripping.html

tourists-tripping.js

typings

tsconfig.json

• to	urists-tripping.js /src	Η	ୟ
1	<pre>angular.module('tourists-tripping', [])</pre>		
2	.directive('', function () {		
3			
4	})		
5			
6	TouristsTrippingApp.annotations = [
7	<pre>new angular.ComponentAnnotation({</pre>		
8	selector: 'tourists-tripping-app',		
9	appInjector: [NeighborhoodHandler]		
10	}),		
11	<pre>new angular.ViewAnnotation({</pre>		
12	<pre>templateUrl: 'tourists-tripping.html',</pre>		
13	directives: [angular.NgFor, PeopleCount]		
14	})		
15];		
16	TouristsTrippingApp.parameters = [
17	[NeighborhoodHandler]		
18];		
19	<pre>function TouristsTrippingApp(neighborhoodHandler) {</pre>		
20	<pre>this.neighborhoodHandler = neighborhoodHandler;</pre>		
21			
22	<pre>this.neighborhoods = neighborhoodHandler.neighborhoods;</pre>		
23			
24	neighborhoodHandler.pushNeighborhood(
25	'Central Amsterdam',		



- WORKING FILES 1 UNSAVED
- TOURISTS-ON-A-TRIP
 - ▲ src
 - component
 - ▲ people-count
 - people-count.html
 - people-count.js
 - ✓ service
 - neighborhood-handler
 neighborhood.js
 neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
 - vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - ▷ typings
 - tsconfig.json

```
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                                                                 ×
• tourists-tripping.js /src
    angular.module('tourists-tripping', [])
        .directive('touristsTrippingApp', function () {
 3
            return {
                restrict: 'E',
            }
 5
        3)
    TouristsTrippingApp.annotations = [
        new angular.ComponentAnnotation({
            selector: 'tourists-tripping-app',
10
11
            appInjector: [NeighborhoodHandler]
12
        3),
        new angular.ViewAnnotation({
13
14
            templateUrl: 'tourists-tripping.html',
            directives: [angular.NgFor, PeopleCount]
15
16
        Ð
17 ];
    TouristsTrippingApp.parameters = [
18
19
        [NeighborhoodHandler]
20 ];
21 function TouristsTrippingApp(neighborhoodHandler) {
22
        this.neighborhoodHandler = neighborhoodHandler;
23
24
        this.neighborhoods = neighborhoodHandler.neighborhoods;
25
```



- WORKING FILES 1 UNSAVED
- TOURISTS-ON-A-TRIP
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 - component
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 - people-count.js
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 - neighborhood-handler
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 - neighborhood-handler.js
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 - socket-handler.js
 - vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - typings
 - tsconfig.json

```
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                                                                 • tourists-tripping.js /src
                                                                          ×
    angular.module('tourists-tripping', [])
        .directive('touristsTrippingApp', function () {
            return {
 3
                restrict: 'E',
                templateUrl: 'tourists-tripping.html'
            }
        3)
    TouristsTrippingApp.annotations = [
        new angular.ComponentAnnotation({
10
            selector: 'tourists-tripping-app',
11
12
            appInjector: [NeighborhoodHandler]
13
        3),
        new angular.ViewAnnotation({
14
            templateUrl: 'tourists-tripping.html',
15
            directives: [angular.NgFor, PeopleCount]
16
17
        Ð
18 ];
    TouristsTrippingApp.parameters = [
19
20
        [NeighborhoodHandler]
21 ];
22 function TouristsTrippingApp(neighborhoodHandler) {
23
        this.neighborhoodHandler = neighborhoodHandler;
24
25
        this.neighborhoods = neighborhoodHandler.neighborhoods;
```



WORKING FILES 1 UNSAVED

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people-count.html

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 - neighborhood-handler

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```
୍ରାର୍
• tourists-tripping.js /src
    angular.module('tourists-tripping', [])
        .directive('touristsTrippingApp', function () {
            return {
  3
                restrict: 'E',
                templateUrl: 'tourists-tripping.html',
  5
                link: function (scope) {
                }
        3)
10
11
    TouristsTrippingApp.annotations = [
12
        new angular.ComponentAnnotation({
13
            selector: 'tourists-tripping-app',
14
            appInjector: [NeighborhoodHandler]
15
16
        £),
17
        new angular.ViewAnnotation({
18
            templateUrl: 'tourists-tripping.html',
            directives: [angular.NgFor, PeopleCount]
19
20
        Ð
21 ];
    TouristsTrippingApp.parameters = [
22
23
        [NeighborhoodHandler]
24 ];
25 function TouristsTrippingApp(neighborhoodHandler) {
```



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WORKING FILES 1 UNSAVED

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- neighborhood-handler
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• tou	irists-trip	ping.js /src	Π	Ŕ	×	
11						
12	})					
13						
14	Tourist	tsTrippingApp.annotations = [
15	nev	<pre>angular.ComponentAnnotation({</pre>				
16		<pre>selector: 'tourists-tripping-app',</pre>				
17		appInjector: [NeighborhoodHandler]				
18	3) }					
19	nev					
20		<pre>templateUrl: 'tourists-tripping.html',</pre>				
21		directives: [angular.NgFor, PeopleCount]				
22	3)					
];					
24		tsTrippingApp.parameters = [
25		eighborhoodHandler]				
26]					
27		on TouristsTrippingApp(neighborhoodHandler) {				
28	th	is.neighborhoodHandler = neighborhoodHandler;				
29		a watabbaabaa da				
30	th	<pre>is.neighborhoods = neighborhoodHandler.neighborhoods;</pre>				
31		abbarbaadlandlan nuchblai abbarbaadC				
32	ne	ighborhoodHandler.pushNeighborhood(
33		'Central Amsterdam',				
34		'Red Light District',				
35		'Leidseplein',				



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▲ TOURISTS-ON-A-TRIP

- ▲ SIC
 - component
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- ▲ service
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• to	urists-tripping.js /src		ൾ	×
3	:turn {			
4	restrict: 'E',			
5	<pre>templateUrl: 'tourists-tripping.html',</pre>			
6	link: function (scope) {			
7	<pre>scope.neighborhoods = neighborhoodHandler.neighborho</pre>	ods;		
8				
9	<pre>scope.updateNeighborhood = function(neighborhood, am</pre>	ount)	ł	
10	heighborhoodHandler.updateNeighborhood(neighborh	ood,	amou	unt)
11	};			
12	}			
13				
14				
15				
16	<pre>ouristsTrippingApp(neighborhoodHandler) {</pre>			
17	<pre>ieighborhoodHandler = neighborhoodHandler;</pre>			
18				
19	<pre>ieighborhoods = neighborhoodHandler.neighborhoods;</pre>			
20				
21	orhoodHandler.pushNeighborhood(
	:entral Amsterdam',			
	<pre>led Light District',</pre>			
	.eidseplein',			
	lud Zuid',			
	<pre>!embrandtplein',</pre>			
27	lordaan',			

EXPLORE	tourists-tripping.js /src
 WORKING FILES TOURISTS-ON-A-TRIP 	<pre>1 angular.module('tourists-tripping', []) [2 .directive('touristsTrippingApp', function (neighborhoodHandler) { 3 return {</pre>
 src component people-count people-count.html people-count.js service neighborhood-handler neighborhood.js 	<pre> 4 restrict: 'E', 5 templateUrl: 'tourists-tripping.html', 6 link: function (scope) { 7 scope.neighborhoods = neighborhoodHandler.neighborhoods 8 9 scope.updateNeighborhood = function(neighborhood, amoun 10 neighborhoodHandler.updateNeighborhood(neighborhood 11 }; 12 } 13 } 14 }) </pre>
 socket-handler socket-handler.js vendor index.html tourists-tripping.html tourists-tripping.js typings 	<pre>15 16 function TouristsTrippingApp(neighborhoodHandler) { 17 18 neighborhoodHandler.pushNeighborhood(19 'Central Amsterdam', 20 'Red Light District', 21 'Leidseplein', 22 'Oud Zuid', 23 'Rembrandtplein', 24 'Jordaan', 25 'The Plantagebuurt',</pre>
	 WORKING FILES TOURISTS-ON-A-TRIP src component people-count people-count.html people-count.js service neighborhood-handler neighborhood-handler.js socket-handler socket-handler.js vendor index.html tourists-tripping.html

O <	EXPLORE	tourists-tripping.js /src	II 🖄	×
۰	WORKING FILES	<pre>1 angular.module('tourists-tripping', [])</pre>		
ρ	▲ TOURISTS-ON-A-TRIP	2 .run(function (neighborhoodHandler) { 3 neighborhoodHandler.pushNeighborhood(
~	⊿ src	4 'Central Amsterdam',		
~	∡ component	5 'Red Light District',		
�		6 'Leidseplein',		
<u>_</u>	people-count.html	7 'Oud Zuid', 8 'Rembrandtplein',		
8	people-count.js	9 'Jordaan',		
	✓ service	10 'The Plantagebuurt',		
	neighborhood-handler	11 'De Pijp' 12);		
	neighborhood.js	13 J)		
	neighborhood-handler.js	<pre>14 .directive('touristsTrippingApp', function (neighborhood 15 return {</pre>	dHandler	י) {
	✓ socket-handler	16 restrict: 'E',		
	socket-handler.js	<pre>17 templateUrl: 'tourists-tripping.html',</pre>		
	▷ vendor	18link: function (scope) {19scope.neighborhoods = neighborhoodHandler.neighborhoods = neighborhoodHandler.neighbor	aiabharb	200ds
	index.html	20	- Lighton II	
	tourists-tripping.html	21 scope.updateNeighborhood = function(neighborhood	rhood, a	amour
	tourists-tripping.js	22 neighborhoodHandler.updateNeighborhood(neighbor	hood
	▶ typings	23 }; 24 }		
	tsconfig.json	25		L



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2);			
3 })				
4 .di	<pre>rective('touristsTrippingApp', function (neighbork</pre>	noodHar	ndler	י) {
5	return {			
6	restrict: 'E',			
7	<pre>templateUrl: 'tourists-tripping.html',</pre>			
8	link: function (scope) {			
9	<pre>scope.neighborhoods = neighborhoodHandler</pre>	.neigh	iborh	noods
0				
1	<pre>scope.updateNeighborhood = function(neighborhood = function(neighborhood</pre>	borhoo	od, a	moun
2	neighborhoodHandler.updateNeighborhoo	od(neig	jhbor	•hood
3	};			
4	}			
5	}			
6 });				
7				
8 documen	<pre>it.addEventListener('DOMContentLoaded', function ()</pre>) {		
9 ang	ular.bootstrap(document, ['tourists-tripping']);			
0 });				
1				



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 - ▹ typings
 - tsconfig.json

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- Q
                                                                 • neighborhood-handler.js /src/service/neighborhood-handler
                                                                          ×
    angular.module('tourists-tripping')
        .service('neighborhoodHandler', NeighborhoodHandler);
    function NeighborhoodHandler(socketHandler) {
        var neighborhoods = this.neighborhoods = [];
 5
        this.socketHandler = socketHandler;
        this.socketHandler.onUpdateNeighborhood(function(name, amount) {
            var neighborhood = neighborhoods.filter(
10
                function(n) { return n.name === name; }
            )[0];
11
12
13
            if (neighborhood) {
                neighborhood.setTTAmount(amount);
14
15
            }
16
        3);
17 }
18
19
    NeighborhoodHandler.prototype.pushNeighborhood = function() {
20
        this.neighborhoods.push.apply(
            this.neighborhoods,
21
22
            Array.prototype.slice.call(arguments).map(
23
                function(name) { return new Neighborhood(name); }
24
            )
25
        );
```

D ·	EXPLORE	neighborhood-handler.js /src/service/neighborhood-handler	□ &	×
	WORKING FILES	<pre>10 var neighborhood = neighborhoods.filter(</pre>		
0	▲ TOURISTS-ON-A-TRIP	<pre>11 function(n) { return n.name === name; } 12 > \Gamma_1</pre>		
~	⊿ src	12)[0]; 13		
•	∡ component	14 if (neighborhood) {		
♥	⊿ people-count	<pre>15 neighborhood.setTTAmount(amount);</pre>		
~	people-count.html	16 } 17 });		
8	people-count.js	18 }		
	✓ service	19		
	neighborhood-handler	20 NeighborhoodHandler.prototype.pushNeighborhood = function() 21 var Neighborhood = this.Neighborhood;	{	
	neighborhood.js	<pre>22 this.neighborhoods.push.apply(</pre>		
	neighborhood-handler.js	23 this.neighborhoods,		
	∡ socket-handler	24 Array.prototype.slice.call(arguments).map(25 function(name) { return new Neighborhood(name);	1	
	socket-handler.js	<pre>25 function(name) { return new Neighborhood(name); 26)</pre>	\$	
	▶ vendor	27);		
	index.html	28 }; I		
	tourists-tripping.html	29 30 NeighborhoodHandler.prototype.updateNeighborhood = function	neiahb	orhoo
	tourists-tripping.js	31 neighborhood.setTTAmount(amount);		
	▷ typings	32 this.socketHandler.updateNeighborhood(neighborhood.name	, amount	t);
	tsconfig.json	33 }; 34		L

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- typings tsconfig.json

୍ରାର୍ neighborhood-handler.js /src/service/neighborhood-handler × 1 (function () { angular.module('tourists-tripping') .service('neighborhoodHandler', NeighborhoodHandler); function NeighborhoodHandler(socketHandler, Neighborhood) { var neighborhoods = this.neighborhoods = \Box ; this.socketHandler = socketHandler; this.Neighborhood = Neighborhood; 10 this.socketHandler.onUpdateNeighborhood(function(name, amount) var neighborhood = neighborhoods.filter(function(n) { return n.name === name; })[0]; 15 if (neighborhood) { 16 neighborhood.setTTAmount(amount); 3 3); } 20 21 NeighborhoodHandler.prototype.pushNeighborhood = function() { var Neighborhood = this.Neighborhood; 22 this.neighborhoods.push.apply(this.neighborhoods, Array.prototype.slice.call(arguments).map(



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 - tourists-tripping.js
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• socket-handler.js /src/service/socket-handler
                                                                           ×
  1 (function () {
        angular.module('tourists-tripping')
            .service('socketHandler', SocketHandler);
        function SocketHandler() {
  5
            this.socket = io.connect("http://localhost:9898");
        }
        SocketHandler.prototype.updateNeighborhood = function(name, TTAmoun
            var event = \{\};
 10
            event[name] = TTAmount;
11
            this.socket.emit('updateNeighborhoods', event);
12
        };
13
14
15
        SocketHandler.prototype.onUpdateNeighborhood = function(listener) {
            this.socket.on('updateNeighborhoods', function(data) {
16
17
                Object.keys(data).forEach(function(name) {
18
                 listener(name, data[name]);
19
                });
20
            3);
21
        };
22 }());
```



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                                                                          ×
• neighborhood.js /src/service/neighborhood-handler
    angular.module('tourists-tripping')
        .factory('Neighborhood', function () {
            return Neighborhood;
        });
  5
 6 function Neighborhood(name, TTAmount) {
        this.name = name;
        this.TTAmount = TTAmount || 0;
 9 }
10
    Neighborhood.prototype.setTTAmount = function (value) {
 11
12
        this.TTAmount = parseFloat(value);
        return this;
13
14 };
15
```



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• neighborhood.js /src/service/neighborhood-handler
  1 (function () {
        angular.module('tourists-tripping')
            .factory('Neighborhood', function () {
                return Neighborhood;
            3);
        function Neighborhood(name, TTAmount) {
            this.name = name;
            this.TTAmount = TTAmount || 0;
        }
        Neighborhood.prototype.setTTAmount = function (value) {
            this.TTAmount = parseFloat(value);
            return this;
        };
16 }());
```

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                                                                  ×
neighborhood.js /src/service/neighborhood-handler
  1 (function () {
        angular.module('tourists-tripping')
             .value('Neighborhood', Neighborhood);
        function Neighborhood(name, TTAmount) {
            this.name = name;
            this.TTAmount = TTAmount || 0;
        }
        Neighborhood.prototype.setTTAmount = function (value) {
 10
            this.TTAmount = parseFloat(value);
 11
12
            return this;
13
        };
 14 }());
```

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                                                                         ×
people-count.js /src/component/people-count
    PeopleCount.annotations = [
        new angular.ComponentAnnotation({
            selector: 'people-count',
            properties: ['title: tt-title', 'amount: tt-amount'],
            appInjector: [angular.FormBuilder],
  5
            lifecycle: [angular.onChange],
            events: ['ttAmountChange']
        £),
        new angular.ViewAnnotation({
            templateUrl: 'component/people-count/people-count',
10
            directives: [angular.formDirectives]
11
12
        3)
13 ]:
    PeopleCount.parameters = [
 14
15
        [angular.FormBuilder]
16 ];
17 function PeopleCount(builder) {
        this.ttAmountChange = new angular.EventEmitter();
18
19
20
        this.amountControl = new angular.Control();
21
22
        this.peopleCountForm = builder.group({
23
            amount: this.amountControl
24
        };
25 }
```

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    people-count.js /src/component/people-count

    angular.module('tourists-tripping')
        .directive('peopleCount', function () {
            return {
                restrict: 'E'
            }
 5
        3)
    PeopleCount.annotations = [
        new angular.ComponentAnnotation({
            selector: 'people-count',
10
            properties: ['title: tt-title', 'amount: tt-amount'],
11
            appInjector: [angular.FormBuilder],
12
            lifecycle: [angular.onChange],
13
            events: ['ttAmountChange']
14
15
        3),
16
        new angular.ViewAnnotation({
            templateUrl: 'component/people-count/people-count',
17
            directives: [angular.formDirectives]
18
19
        Ð
20 ];
    PeopleCount.parameters = [
21
        [angular.FormBuilder]
22
23 ];
24 function PeopleCount(builder) {
25
        this.ttAmountChange = new angular.EventEmitter();
```

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    people-count.js /src/component/people-count

                                                                          ×
    angular.module('tourists-tripping')
        .directive('peopleCount', function () {
            return {
                restrict: 'E'.
                templateUrl: "component/people-count/people-count"
  5
            }
        3)
    PeopleCount.annotations = [
        new angular.ComponentAnnotation({
10
            selector: 'people-count',
11
            properties: ['title: tt-title', 'amount: tt-amount'],
12
            appInjector: [angular.FormBuilder],
13
            lifecycle: [angular.onChange],
14
15
            events: ['ttAmountChange']
16
        £),
17
        new angular.ViewAnnotation({
            templateUrl: 'component/people-count/people-count',
18
            directives: [angular.formDirectives]
19
20
        Ð
21 ];
   PeopleCount.parameters = [
22
        [angular.FormBuilder]
23
24 ];
25 function PeopleCount(builder) {
```



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    people-count.js /src/component/people-count

    angular.module('tourists-tripping')
        .directive('peopleCount', function () {
            return {
                restrict: 'E',
                templateUrl: 'component/people-count/people-count',
                scope: {
                    title: '=ttTitle',
                    amount: '=ttAmount'
                }
 10
            }
 11
        3)
12
13
    PeopleCount.annotations = [
        new angular.ComponentAnnotation({
14
            selector: 'people-count',
15
            properties: ['title: tt-title', 'amount: tt-amount'],
16
            appInjector: [angular.FormBuilder],
17
            lifecycle: [angular.onChange],
18
19
            events: ['ttAmountChange']
20
        Ð.
        new angular.ViewAnnotation({
21
            templateUrl: 'component/people-count/people-count',
22
23
            directives: [angular.formDirectives]
        3)
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25 ];
```



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    people-count.js /src/component/people-count

    angular.module('tourists-tripping')
        .directive('peopleCount', function () {
            return {
                restrict: 'E'.
                templateUrl: 'component/people-count/people-count',
  5
                scope: {
                     title: '=ttTitle',
                     amount: '=ttAmount',
                     ttAmountChange: '&'
 10
                 }
 11
            }
12
        3)
13
    PeopleCount.annotations = [
14
        new angular.ComponentAnnotation({
15
            selector: 'people-count',
16
17
            properties: ['title: tt-title', 'amount: tt-amount'],
            appInjector: [angular.FormBuilder],
18
            lifecycle: [angular.onChange],
19
20
            events: ['ttAmountChange']
21
        £),
22
        new angular.ViewAnnotation({
            templateUrl: 'component/people-count/people-count',
23
            directives: [angular.formDirectives]
24
        3)
25
```



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    people-count.js /src/component/people-count

    angular.module('tourists-tripping')
        .directive('peopleCount', function () {
            return {
                restrict: 'E'.
                templateUrl: 'component/people-count/people-count',
  5
                scope: {
                     title: '=ttTitle',
                     amount: '=ttAmount',
                     ttAmountChange: '&'
                },
 10
                link: function (scope) {
11
12
                }
13
14
            }
        3)
15
16
17
    PeopleCount.annotations = [
        new angular.ComponentAnnotation({
18
            selector: 'people-count',
19
20
            properties: ['title: tt-title', 'amount: tt-amount'],
            appInjector: [angular.FormBuilder],
21
            lifecycle: [angular.onChange],
22
23
            events: ['ttAmountChange']
        }),
24
25
        new angular.ViewAnnotation({
```

	EXPLORE	people-count.js /src/component/people-count		Ŕ	×	
1	WORKING FILES 1 UNSAVED	<pre>7 title: '=ttTitle',</pre>				
>	▲ TOURISTS-ON-A-TRIP	8 amount: '=ttAmount',				
·	⊿ SIC	9 ttAmountChange: '&'				
	∡ component	<pre>10 }, 11 link: function (scope) {</pre>				
^		12				
	people-count.html	13 }				
)	people-count.js	14 } 15 })				
	✓ service	16				
	neighborhood-handler	<pre>17 PeopleCount.annotations = [</pre>				
	neighborhood.js	18 new angular.ComponentAnnotation({ 19 selector: 'people-count',				
	neighborhood-handler.js	<pre>properties: ['title: tt-title', 'amount: tt-amount'</pre>],			
	∡ socket-handler	appInjector: [angular.FormBuilder],				
	socket-handler.js	22 lifecycle: [angular.onChange], 23 events: ['ttAmountChange']				
	▶ vendor	24 }),				
	index.html	<pre>25 new angular.ViewAnnotation({</pre>				
	tourists-tripping.html	26 templateUrl: 'component/people-count/people-count', 27 directives: [angular.formDirectives]				
	tourists-tripping.js	28 })				
	▶ typings	29];				
	tsconfig.json	30 PeopleCount.parameters = [31				

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    people-count.js /src/component/people-count

        .directive('peopleCount', function () {
            return {
                restrict: 'E',
                templateUrl: 'component/people-count/people-count',
                scope: {
                    title: '=ttTitle'.
                    amount: '=ttAmount',
                    ttAmountChange: '&'
                },
                link: function (scope) {
                }
            }
        3)
    function PeopleCount(builder) {
17
        this.ttAmountChange = new angular.EventEmitter();
        this.amountControl = new angular.Control();
        this.peopleCountForm = builder.group({
            amount: this.amountControl
        3);
25 }
```

2	EXPLORE	 people-count.js /src/component/people-count 	II 🖄	×
-1	WORKING FILES 1 UNSAVED	4 restrict: 'E',		
Ω	▲ TOURISTS-ON-A-TRIP	<pre>5 templateUrl: 'component/people-count/people-co 6 scope: {</pre>	ount',	
	⊿ SrC	7 title: '=ttTitle',		
	∡ component	8 amount: '=ttAmount',		
6	⊿ people-count	9 ttAmountChange: '&'		- H
	people-count.html	10 },		
8		11 link: function (scope) {		
9	people-count.js	<pre>12 scope.amountControl = 0; 13</pre>		
	✓ service	14 scope.\$watch('amount', function (value) {		
	neighborhood-handler	15 scope.amountControl = value;		
	neighborhood.js	16 });		
	neighborhood-handler.js	17 }		
	A socket-handler	18 } 19 })		
	socket-handler.js	20		
	▶ vendor	<pre>21 function PeopleCount(builder) {</pre>		
		<pre>22 this.ttAmountChange = new angular.EventEmitter();</pre>		
	index.html	23		
	tourists-tripping.html	<pre>24 this.amountControl = new angular.Control();</pre>		
	tourists-tripping.js	25		
	▶ typings	<pre>26 this.peopleCountForm = builder.group({ 27 amount: this.amountControl</pre>		
	tsconfig.json	28 });		L

EXPLORE	people-count.js /src/component/people-count
WORKING FILES	<pre>1 angular.module('tourists-tripping')</pre>
TOURISTS-ON-A-TRIP	<pre>2 .directive('peopleCount', function () {</pre>
	3 return {
⊿ SIC	4 restrict: 'E',
✓ component	5 templateUrl: 'component/people-count/people-count',
⊿ people-count	6 scope: {
	7 title: '=ttTitle',
people-count.html	8 amount: '=ttAmount',
people-count.js	9 ttAmountChange: '&'
✓ service	10 },
	<pre>11 link: function (scope) {</pre>
neighborhood-handler	12 scope.amountControl = 0;
neighborhood.js	13
neighborhood-handler.js	<pre>14 scope.\$watch('amount', function (value) {</pre>
	<pre>15 scope.amountControl = value;</pre>
▲ socket-handler	16 };
socket-handler.js	17
▶ vendor	<pre>18 scope.reportAmount = function() {</pre>
	19 var event = {
index.html	20 amount: this.amountControl
tourists-tripping.html	21 };
tourists-tripping.js	<pre>22 this.ttAmountChange({\$event: event});</pre>
	23 };
▹ typings	24 }
tsconfig.json	25

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EXPLORE

- WORKING FILES 1 UNSAVED
- ▲ TOURISTS-ON-A-TRIP
 - ▲ SIC
 - ∡ component
 - ▲ people-count

people-count.html

people-count.js

- ▲ service
 - ▲ neighborhood-handler

neighborhood.js

neighborhood-handler.js

▲ socket-handler

socket-handler.js

▶ vendor

index.html tourists-tripping.html tourists-tripping.js

typings

tsconfig.json

• pe	ople-count.html /src/component/people-count	Η	ß	3
1				
2	<div class="panel panel-default"></div>			
3	<pre><div class="panel-heading"></div></pre>			
4	<pre>{{ title }}</pre>			
5				
6	<div class="panel-body"></div>			
7	How many Tourists on a trip do you see?			
8	<form></form>			
9	<input <="" ng-model="amountControl" th="" type="range"/> <th>/></th> <th></th> <th></th>	/>		
10	Value: {{ amountControl }}			
11				
12				
13	<div class="panel-footer"></div>			
14	<pre><button <="" class="btn btn-success" pre="" type="button"></button></pre>			
15	<pre>(click)="reportAmount()">Report</pre>			
16				
17				

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EXPLORE

- WORKING FILES
- TOURISTS-ON-A-TRIP
 - ▲ SIC
 - component
 - ▲ people-count

people-count.html

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people-count.js

- ▲ service
 - neighborhood-handler

neighborhood.js

neighborhood-handler.js

▲ socket-handler

socket-handler.js

▷ vendor

index.html tourists-tripping.html tourists-tripping.js

typings

tsconfig.json

```
🔳 🔬
people-count.html /src/component/people-count
    <div class="panel panel-default">
        <div class="panel-heading">
            {{ title }}
        </div>
        <div class="panel-body">
            How many Tourists on a trip do you see?
            <form>
                <input type="range" ng-model="amountControl" />
                Value: {{ amountControl }}
            </form>
        </div>
        <div class="panel-footer">
            <button type="button" class="btn btn-success"</pre>
                ng-click="reportAmount()">Report</button>
        </div>
17 </div>
```



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EXPLORE

- WORKING FILES 1 UNSAVED
- TOURISTS-ON-A-TRIP
 - ▲ STC
 - component
 - ▲ people-count
 - people-count.html
 - people-count.js
 - ▲ service
 - neighborhood-handler
 - neighborhood.js
 - neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
 - ▷ vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - typings
 - tsconfig.json

• to	urists-tripping.html /src		ଔ	×
1	<h1></h1>			
2	Tourists on a Trip			
3				
4				
5	<pre><div class="row" ng-repeat="neighborhood in neighborhoods"></div></pre>			
6	<div class="col-md-12"></div>			
7	ModelValue: {{ neighborhood.TTAmount }}			
8	<pre><people-count;< pre=""></people-count;<></pre>			
9	<pre>[tt-title]="neighborhood.name"</pre>			
10	<pre>[tt-amount]="neighborhood.TTAmount"</pre>			
11	(tt-amount-change)="updateNeighborhood(neighborh	nood	, \$e	event
12	>			
13				
14				

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EXPLORE

- **WORKING FILES**
- ▲ TOURISTS-ON-A-TRIP
 - ▲ src
 - ∡ component
 - ▲ people-count
 - people-count.html
 - people-count.js
 - ▲ service
 - ▲ neighborhood-handler
 - neighborhood.js
 - neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
 - ▷ vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - typings
 - tsconfig.json

touri	sts-tripping.html /src		ශ්	×
1	<h1></h1>			
2	Tourists on a Trip			- 11
3				- 11
4				- 11
5	<pre><div class="row" ng-repeat="neighborhood in neighborhoods"></div></pre>			- 11
6	<pre><div class="col-md-12"></div></pre>			- 11
7	ModelValue: {{ neighborhood.TTAmount }}			- 8
8	<pre><people-count< pre=""></people-count<></pre>			- 11
9	<pre>tt-title="neighborhood.name"</pre>			
10	tt-amount="neighborhood.TTAmount"			
11	tt-amount-change="updateNeighborhood(neighborhood	od,	\$eve	nt a
12	>			
13				- 11
14				

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- WORKING FILES
- ▲ TOURISTS-ON-A-TRIP
 - - ▲ people-count
 - people-count.html
 - people-count.js
 - ▲ service
 - neighborhood-handler
 - neighborhood.js
 - neighborhood-handler.js
 - ▲ socket-handler

socket-handler.js

- vendor
 - index.html
 - tourists-tripping.html tourists-tripping.js
- typings
 - tsconfig.json
 - tsd.json

inde	x.html /src	Β	ß	×
1	html			
2	<html></html>			- 11
3	<head></head>			
4	<title>Tourists on a Trip</title>			
5	<pre><link href="/vendor/bootstrap.min.css" material-fullpalette.css"="" rel="</pre></th><th>styl</th><th>eshe</th><th>et" vendor=""/></pre>			
7	<pre><script src="/vendor/traceur-runtime.js"></script></pre>			- 88
8	<pre><script src="/vendor/system@0.16.11.js"></script></pre>			
9	<pre><script src="/vendor/angular-1.4.0.js"></script></pre>			
10	<pre><script src="http://localhost:9898/socket.io/socket</pre></td><td><u>.io</u></td><td><u>js</u>"></td><td></sc</td></tr><tr><td>11</td><td></td><td></td><td></td><td></td></tr><tr><th>12</th><th><pre><script src="/tourists-tripping.js"></script></pre> <th></th> <th></th> <th></th>			
13	<pre><script src="/component/people-count/people-count.j</pre></th><th><u>s</u>"></th><th></scr</th><th>'ipt></th></tr><tr><td>14</td><td><pre><script src="/service/socket-handler/socket-handler</pre></td><td><u>. js</u></td><td>'></s</td><td>crip</td></tr><tr><th>15</th><th><pre><script src="/service/neighborhood-handler/neighbor</pre></th><th>hood</th><th><u>1.js</u>"</th><th>'><∕ s</th></tr><tr><td>16</td><td><pre><script src="/service/neighborhood-handler/neighbor</pre></td><td>hood</td><td>l-har</td><td><u>idler</u></td></tr><tr><th>17</th><th></head></th><th></th><th></th><th></th></tr><tr><th>18</th><th><body></th><th></th><th></th><th></th></tr><tr><th>19</th><th><tourists-tripping-app></tourists-tripping-app></th><th></th><th></th><th></th></tr><tr><th>20</th><th></body></th><th></th><th></th><th></th></tr><tr><th>21</th><th></html></th><th></th><th></th><th></th></tr></tbody></table></script></pre>			

← → C fř 🗋 localhost:8080	Ø @ ☆ ☆ 🗅 🔏 JB 📅 🚥 🌻 ≡	← → C fř 🗋 localhost:8080	🥵 🄄 🗅 🔏 JB 📅 📼 🌻 😑
Tourists on a Trip		Tourists on a Trip	
Central Amsterdam		Central Amsterdam	
How many Tourists on a trip do you see?		How many Tourists on a trip do you see?	
Value: 3		Value: 67	
NEPORT		REPORT	
NodelValue: 0		ModelValue: 0	
Red Light District		Red Light District	
How many Tourists on a trip do you see? Value: 0		How many Tourists on a trip do you see?	
REPORT		REPORT	
IodelValue: 0		ModelValue: 0	
Leidseplein		Leidseplein	
How many Tourists on a trip do you see?		How many Tourists on a trip do you see?	
Value: 0		Value: 0	
REPORT		REPORT	

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EXPLORE

- WORKING FILES
- TOURISTS-ON-A-TRIP
 - ▲ component
 - ▲ people-count
 - people-count.html
 - people-count.js
 - ✓ service
 - neighborhood-handler neighborhood.js
 - neighborhood-handler.js
 - ▲ socket-handler
 - socket-handler.js
 - vendor
 - index.html
 - tourists-tripping.html
 - tourists-tripping.js
 - typings
 - tsconfig.json
 - tsd.json

```
্রি
socket-handler.js /src/service/socket-handler
                                                                           ×
  1 (function () {
        angular.module('tourists-tripping')
             .service('socketHandler', SocketHandler);
        function SocketHandler() {
            this.socket = io.connect("http://localhost:9898");
        }
        SocketHandler.prototype.updateNeighborhood = function(name, TTAmoun
10
            var event = \{\};
            event[name] = TTAmount;
11
12
            this.socket.emit('updateNeighborhoods', event);
        };
13
14
15
        SocketHandler.prototype.onUpdateNeighborhood = function(listener) {
16
            this.socket.on('updateNeighborhoods', function(data) {
17
                Object.keys(data).forEach(function(name) {
18
                     listener(name, data[name]);
19
                });
20
            });
21
        };
22 }());
```

EXPLORE	socket-handler.js /src/service/socket-handler	II 🖄	×		
▶ WORKING FILES	<pre>2 angular.module('tourists-tripping')</pre>				
▲ TOURISTS-ON-A-TRIP	3 .service('socketHandler', SocketHandler);				
✓ component	5 function SocketHandler(\$rootScope) {				
⊿ people-count	<pre>6 this.\$rootScope = \$rootScope;</pre>				
people-count.html	<pre>7 this.socket = io.connect("http://localhost:9898");</pre>				
people-count.js	8 } 9				
✓ service	SocketHandler.prototype.updateNeighborhood = function(r	ame, TTA	moun		
neighborhood-handler	11 var event = {};				
neighborhood.js	<pre>12 event[name] = TTAmount;</pre>				
neighborhood-handler.js	<pre>13 this.socket.emit('updateNeighborhoods', event); 14 };</pre>				
✓ socket-handler	15				
socket-handler.js	<pre>16 SocketHandler.prototype.onUpdateNeighborhood = function(listener) { 17 var \$rootScope = this.\$rootScope;</pre>				
▷ vendor	18 this.socket.on('updateNeighborhoods', function(data	0{			
index.html	<pre>19 \$rootScope.\$apply(function () {</pre>				
tourists-tripping.html	<pre>20 Object.keys(data).forEach(function(name) {</pre>				
tourists-tripping.js	<pre>21 listener(name, data[name]);</pre>				
	22 }); 23 });				
▷ typings	23 }); 24 });				
tsconfig.json	25 };				
tsd.json	26 }();		L		

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Done Coding!

What Did We Learn?

Modules

ES6 & Typescript

Components & Isolation

Declarative

Controller As

Resources

http://victorsavkin.com/

http://blog.ionic.io/angular-2-series-introduction/

http://blog.thoughtram.io/

http://angular-tips.com/blog/2015/06/why-will-angular-2-rock/

https://github.com/angular/angular

& Much More...

Demo & Presentation Repository

https://github.com/rodyhaddad/tourists-on-a-trip



Please evaluate this talk via the mobile app!





Questions?

@rodyhaddad