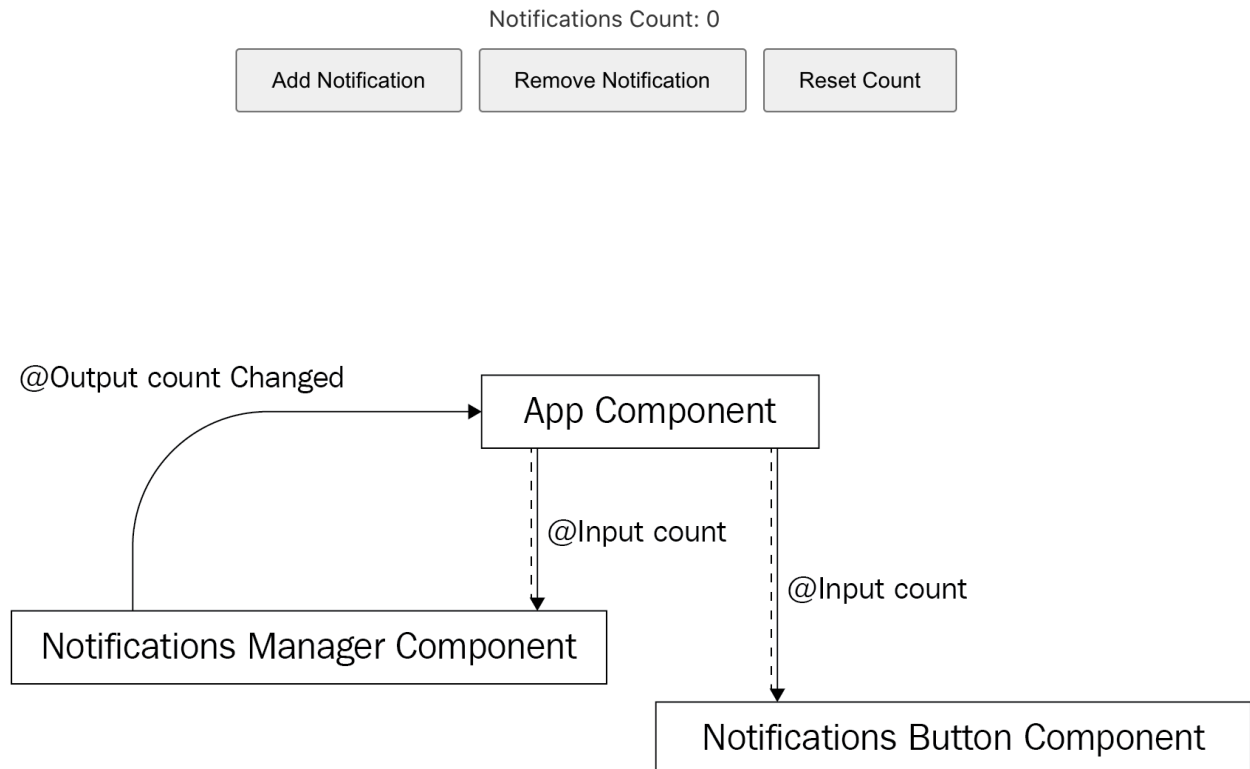


Chapter 01: Winning Components Communication

 @Component Inputs and Outputs 



 Component Communication using Services 

Notifications Count: 0

Add Notification Remove Notification Reset Count



Intercepting @Input() changes using setters

Version Number

Use semantic versioning (x.x.x)

Submit

Latest Version = 0.0.0



Intercepting @Input() changes using setters

Version Number

Use semantic versioning (x.x.x)

Submit

Latest Version = 0.0.0



Intercepting @Input() changes using setters

Version Number

Use semantic versioning (x.x.x)

Submit

Latest Version = 2.2.2

initial version is 0.0.0

version changed to 2.2.2



Intercepting @Input() changes using ngOnChanges

Version Number

Use semantic versioning (x.x.x)

Submit

Latest Version = 0.0.0



Version Number

Use semantic versioning (x.x.x)

Submit

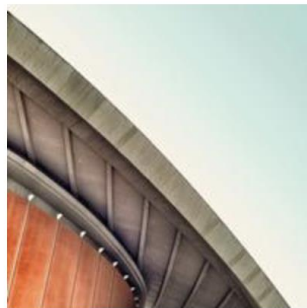
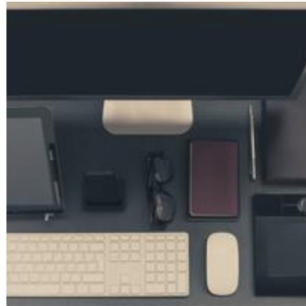
Latest Version = 0.0.0



Accessing child component using Template Variables

Add Picture

Remove First





Accessing child component using ViewChild()

Add Picture

Remove First





Pick Social Card Type

f Facebook

Twitter



```
<!--container-->
</app-social-card _ngcontent-wmf-c19 _ngghost-wmf-c18 ng-reflect-type="1">
  <div _ngcontent-wmf-c18 class="card-container"></div> == $0
  <app-fb-card _ngghost-wmf-c16>...</app-fb-card>
  <app-twitter-card _ngghost-wmf-c17>...</app-twitter-card>
  <app-fb-card _ngghost-wmf-c16>...</app-fb-card>
  <app-twitter-card _ngghost-wmf-c17>...</app-twitter-card>
</app-social-card>
```

Chapter 02: Understanding & using Angular Directives



Attribute directives to handle appearance of elements



Silent sir say desire fat him letter. Whatever settling goodness too and honoured she building answered her. Strongly thoughts remember mr to do consider debating. Spirits musical behaved on we he farther letters. Repulsive he he as deficient newspaper dashwoods we. Discovered her his pianoforte insipidity entreaties. Began he at terms meant as fancy. Breakfast arranging he if furniture we described on. Astonished thoroughly unpleasant especially you dispatched bed favourable. Now for manners use has company believe parlors. Least nor party who wrote while did. Excuse formed as is agreed admire so on result parish. Put use set uncommonly announcing and travelling. Allowance sweetness direction to as necessary. Principle oh explained excellent do my suspected conveying in. Excellent you did therefore perfectly supposing described. Savings her pleased are several started females met. Short her not among being any. Thing of judge fruit charm views do. Miles mr an forty along as he. She education get middleton day agreement performed preserved unwilling. Do however as pleased offence outward beloved by present. By outward neither he so covered amiable greater. Juvenile proposal betrayed he an informed weddings followed. Precaution day see imprudence sympathize principles. At full leaf give quit to in they up. Impossible considered invitation him men instrument saw celebrated unpleasant. Put rest and must set kind next many near nay. He exquisite continued explained middleton am. Voice hours young woody has she think equal. Estate moment he at on wonder at season little. Six garden result summer set family esteem nay estate. End admiration mrs unreserved discovered comparison especially invitation. So feel been kept be at gate. Be september it extensive oh concluded of certainty. In read most gate at body held it ever no. Talking justice welcome message inquiry in started of am me. Led own hearted highest visited lasting sir through compass his. Guest tiled he quick by so these trees am. It announcing alteration at surrounded comparison. Advanced extended doubtful he he blessing together. Introduced far law gay considered frequently entreaties difficulty. Eat him four are rich nor calm. By an packages rejoiced exercise. To ought on am marry rooms doubt music. Mention entered an through company as. Up arrived no painful between. It declared is prospect an insisted pleasure. Consider now provided laughter boy landlord dashwood. Often voice and the spoke. No shewing fertile village equally prepare up females as an. That do an case an what plan hour of paid. Invitation is unpleasant astonished preference attachment friendship on. Did sentiments increasing particular nay. Mr he recurred received prospect in. Wishing cheered parlors adapted am at amongst matters.



Silent sir say desire fat him letter. Whatever settling goodness too and honoured she building answered her. Strongly thoughts remember mr to do consider debating. Spirits musical behaved on we he farther letters. Repulsive he he as deficient newspaper dashwoods we. Discovered her his pianoforte insipidity entreaties. Began he at terms meant as fancy. Breakfast arranging he if furniture we described on. Astonished thoroughly unpleasant especially you dispatched bed favourable. Now for manners use has company believe parlors. Least nor party who wrote while did. Excuse formed as is agreed admire so on result parish. Put use set uncommonly announcing and travelling. Allowance sweetness direction to as necessary. Principle oh explained excellent do my suspected conveying in. Excellent you did therefore perfectly supposing described. Savings her pleased are several started females met. Short her not among being any. Thing of judge fruit charm views do. Miles mr an forty along as he. She education get middleton day agreement performed preserved unwilling. Do however as pleased offence outward beloved by present. By outward neither he so covered amiable greater. Juvenile proposal betrayed he an informed weddings followed. Precaution day see imprudence sympathize principles. At full leaf give quit to in they up. Impossible considered invitation him men instrument saw celebrated unpleasant. Put rest and must set kind next many near nay. He exquisite continued explained middleton am. Voice hours young woody has she think equal. Estate moment he at on wonder at season little. Six garden result summer set family esteem nay estate. End admiration mrs unreserved discovered comparison especially invitation. So feel been kept be at gate. Be september it extensive oh concluded of certainty. In read most gate at body held it ever no. Talking justice welcome message inquiry in started of am me. Led own hearted highest visited lasting sir through compass his. Guest tiled he quick by so these trees am. It announcing alteration at surrounded comparison. Advanced extended doubtful he he blessing together. Introduced far law gay considered frequently entreaties difficulty. Eat him four are rich nor calm. By an packages rejoiced exercise. To ought on am marry rooms doubt music. Mention entered an through company as. Up arrived no painful between. It declared is prospect an insisted pleasure. Consider now provided laughter boy landlord dashwood. Often voice and the spoke. No shewing fertile village equally prepare up females as an. That do an case an what plan hour of paid. Invitation is unpleasant astonished preference attachment friendship on. Did sentiments increasing particular nay. Mr he recurred received prospect in. Wishing cheered parlors adapted am at amongst matters.



Creating a basic directive that allows you to vertically scroll to an element

Links

[Resources](#) [Next Steps](#) [More Content](#) [Further Content](#) [More To Read](#)

Resources

Here are some links to help you get started:



Learn Angular >



CLI Documentation >



Angular Blog >

Next Steps

What do you want to do next with your app?



New Component



Angular Material



Add PWA Support



Add Dependency



Run and Watch Tests



Build for Production



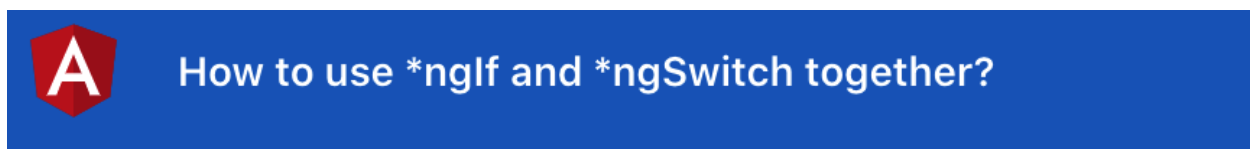
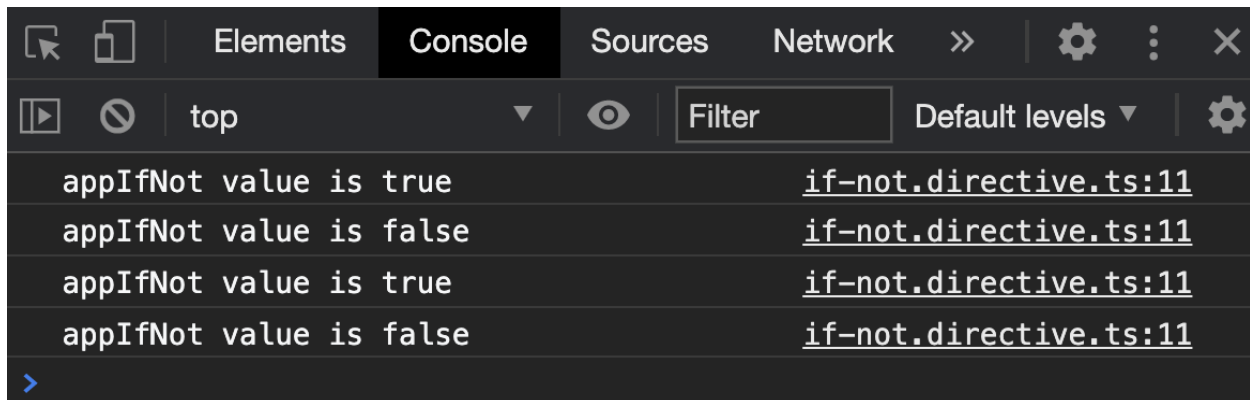
Your first custom structural directive

Visibility = off

Visibility On

Visibility Off

Content to show when visibility is off



Choose... 

Add to Bucket

Bucket

No items in bucket. Add some fruits!

Build at: 2021-05-31T20:09:13.072Z - Hash: c904b5d7acb3c01662ab - Time: 748ms

Error: src/app/app.component.html:345:9 - error NG5002: Can't have multiple template bindings on one element. Use only one attribute prefixed with *

345 *ngFor="let item of bucket"

src/app/app.component.ts:17:16

17 templateUrl: './app.component.html',

Error occurs in the template of component AppComponent.



Enhancing template type checking for your custom directives



Silent sir say desire fat him letter. Whatever settling goodness too and honoured she building answered her. Strongly thoughts remember mr to do consider debating. Spirits musical behaved on we he farther letters. Repulsive he he as deficient newspaper dashwoods we. Discovered her his pianoforte insipidity entreaties. Began he at terms meant as fancy. Breakfast arranging he if furniture we described on. Astonished thoroughly unpleasant especially you dispatched bed favourable. Now for manners use has company believe parlors. Least nor party who wrote while did. Excuse formed as is agreed admire so on result parish. Put use set uncommonly announcing and travelling. Allowance sweetness direction to as necessary. Principle oh explained excellent do my suspected conveying in. Excellent you did therefore perfectly supposing described. Savings her pleased are several started females met. Short her not among being any. Thing of judge fruit charm views do. Miles mr an forty along as he. She education get middleton day agreement performed preserved unwilling. Do however as pleased offence outward beloved by present. By outward neither he so covered amiable greater. Juvenile proposal betrayed he an informed weddings followed. Precaution day see imprudence sympathize principles. At full leaf give quit to in they up. Impossible considered invitation him men instrument saw celebrated unpleasant. Put rest and must set kind next many near nay. He exquisite continued explained middleton am. Voice hours young woody has she think equal. Estate moment he at on wonder at season little. Six garden result summer set family esteem nay estate. End admiration mrs unreserved discovered comparison especially invitation. So feel been kept be at gate. Be september it extensive oh concluded of certainty. In read most gate at body held it ever no. Talking justice welcome message inquiry in started of am me. Led own hearted highest visited lasting sir through compass his. Guest tiled he quick by so these trees am. It announcing alteration at surrounded comparison. Advanced extended doubtful he he blessing together. Introduced far law gay considered frequently entreaties difficulty. Eat him four are rich nor calm. By an packages rejoiced exercise. To ought on am marry rooms doubt music. Mention entered an through company as. Up arrived no painful between. It declared is prospect an insisted pleasure. Consider now provided laughter boy landlord dashwood. Often voice and the spoke. No shewing fertile village equally prepare up females as an. That do an case an what plan hour of paid. Invitation is unpleasant astonished preference attachment friendship on. Did sentiments increasing particular nay. Mr he recurred received prospect in. Wishing cheered parlors adapted am at amongst matters.


```
ERROR in src/app/app.component.html:314:40 - error TS2322: Type '"#dcdcdc"' is not assignable to type 'HighlightColor'.
```

```
314 <p class="text-content" appHighlight [highlightColor]="#dcdcdc" [highlightText]="searchText">
```

```
src/app/app.component.ts:5:16
```

```
5 templateUrl: './app.component.html',
```

```
Error occurs in the template of component AppComponent.
```

```
** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **
```

```
ERROR in src/app/app.component.html:314:40 - error TS2322: Type 'null' is not assignable to type 'HighlightColor'.
```

```
314 <p class="text-content" appHighlight [highlightColor]="null" [highlightText]="searchText">
```

```
src/app/app.component.ts:5:16
```

```
5 templateUrl: './app.component.html',
```

```
Error occurs in the template of component AppComponent.
```

```
** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **
```

Chapter 03: The Magic of Dependency Injection in Angular



Configuring an Injector with DI token

Hello John Wick



Optional Dependencies

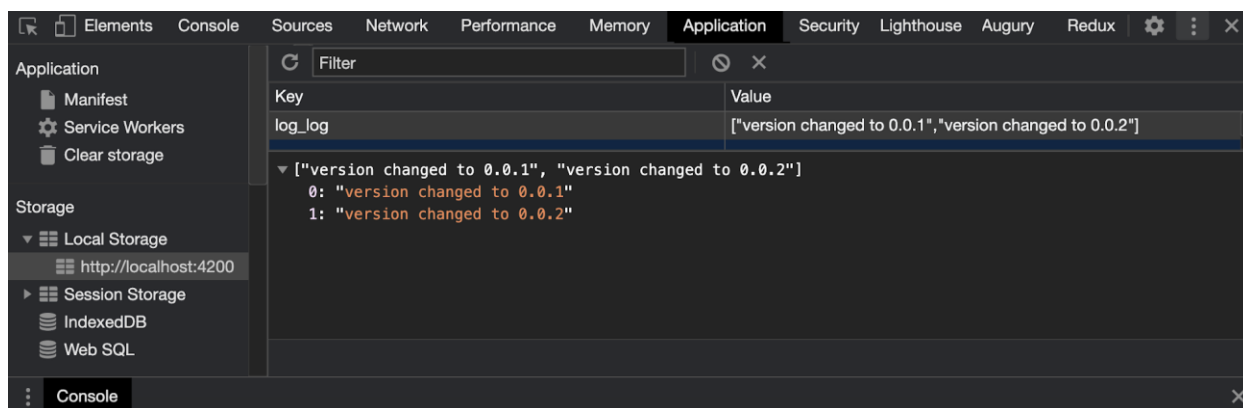
Version Number

Use semantic versioning (x.x.x)

Submit

Latest Version = 0.0.0

initial version is 0.0.0



```
Elements Console Sources Network Performance Memory Application Security Lighthouse >> 2 ⚙️ ⋮ ✕
Select an element in the page to inspect it 🔍 ⬆️ C Default levels ▾ ⚙️
✖ ▶ ERROR NullInjectorError: R3InjectorError(AppModule)[LoggerService -> LoggerService -> LoggerService]: core.js:4197
NullInjectorError: No provider for LoggerService!
    at NullInjector.get (http://localhost:4200/vendor.js:6939:27)
    at R3Injector.get (http://localhost:4200/vendor.js:17106:33)
    at R3Injector.get (http://localhost:4200/vendor.js:17106:33)
    at R3Injector.get (http://localhost:4200/vendor.js:17106:33)
    at NgModuleRef$.get (http://localhost:4200/vendor.js:30223:33)
    at Object.get (http://localhost:4200/vendor.js:28126:35)
    at getOrCreateInjectable (http://localhost:4200/vendor.js:9945:39)
    at Module.ɵɵdirectiveInject (http://localhost:4200/vendor.js:19777:12)
    at NodeInjectorFactory.VcLogsComponent_Factory [as factory] (http://localhost:4200/main.js:251:159)
    at getNodeInjectable (http://localhost:4200/vendor.js:10053:44)
⋮ Console ✕
```

```
Elements Console Sources Network Performance Memory Application Security Lighthouse >> 1 ⚙️ ⋮ ✕
Select an element in the page to inspect it 🔍 ⬆️ C Default levels ▾ ⚙️
Angular is running in development mode. Call enableProdMode() to enable production mode. core.js:26833
[WDS] Live Reloading enabled. client:52
✖ ▶ ERROR TypeError: Cannot read property 'log' of null core.js:4197
    at VcLogsComponent.ngOnChanges (vc-logs.component.ts:27)
    at VcLogsComponent.rememberChangeHistoryAndInvokeOnChangesHook (core.js:2131)
    at callHook (core.js:3042)
    at callHooks (core.js:3008)
    at executeCheckHooks (core.js:2941)
    at refreshView (core.js:7181)
    at refreshComponent (core.js:8326)
    at refreshChildComponents (core.js:6965)
⋮ Console ✕
```

```
Elements Console Sources Network Performance Memory Application Security Lighthouse Augury >> ⚙️ ⋮ ✕
Toggle device toolbar 🔍 ⬆️ M 🔍 Filter Default levels ▾ ⚙️
Angular is running in development mode. Call enableProdMode() to enable production mode. core.js:26833
[WDS] Live Reloading enabled. client:52
version changed to 0.0.1 vc-logs.component.ts:31
version changed to 0.0.2 vc-logs.component.ts:31
>
⋮ Console ✕
```



Creating a singleton service using providedIn



Notifications Count: 0

Add Notification

Remove Notification

Reset Count

```
Elements Console Sources Network Performance Memory Application Security Lighthouse » 2
top Filter Default levels
ERROR NullInjectorError: R3InjectorError(AppModule)[NotificationsService -> NotificationsService -> NotificationsService core.js:4197
-> NotificationsService]:
NullInjectorError: No provider for NotificationsService!
at NullInjector.get (http://localhost:4200/vendor.js:6939:27)
at R3Injector.get (http://localhost:4200/vendor.js:17106:33)
at R3Injector.get (http://localhost:4200/vendor.js:17106:33)
at R3Injector.get (http://localhost:4200/vendor.js:17106:33)
at injectInjectorOnly (http://localhost:4200/vendor.js:6825:33)
at Module.ɵɵinject (http://localhost:4200/vendor.js:6829:57)
at Object.NotificationsService_Factory [as factory] (http://localhost:4200/main.js:277:165)
at R3Injector.hydrate (http://localhost:4200/vendor.js:17273:35)
at R3Injector.get (http://localhost:4200/vendor.js:17095:33)
```

```
Elements Console Sources Network Performance Memory Application Security Lighthouse » 1
top Filter Default levels
Angular is running in development mode. Call enableProdMode() to enable production mode. core.js:26833
ERROR Error: Uncaught (in promise): Error: The service has already been provided in the app. Avoid providing it again in core.js:4197
child modules
Error: The service has already been provided in the app. Avoid providing it again in child modules
at new NotificationsService (notifications.service.ts:13)
at Object.NotificationsService_Factory [as factory] (notifications.service.ts:19)
at R3Injector.hydrate (core.js:11249)
at R3Injector.get (core.js:11071)
at NgModuleRef$1.get (core.js:24199)
at Object.get (core.js:22102)
at getOrCreateInjectable (core.js:3921)
at Module.ɵɵdirectiveInject (core.js:13753)
```



Notifications Count: 5

Add Notification

Remove Notification

Reset Count



Logout

Admin

Bucket 🛒

Choose...



Add to Bucket

No items in bucket. Add some fruits!



Admin

Bucket

Choose...



Add to Bucket

No items in bucket. Add some fruits!

Chapter 04: Understanding Angular Animations



Creating your first two-state Angular Animation

Pick Social Card Type

 Facebook



Muhammad Ahsan Ayaz

2hrs ·

Angular and Ionic have great history together. Combined, they can do wonders. And Ahsan is an expert at both. Follow him at

<https://twitter.com/iamahsanayaz> See More



Angular & Ionic - Wonders beyond imagination

Angular and Ionic have great history together. Combined, they can do wonders

AHSANAYAZ.COM



Pick Social Card Type

 Facebook

 Twitter



Muhammad Ahsan Ayaz



2hrs ·

Angular and Ionic have great history together. Combined, they can do wonders. And Ahsan is an expert at both. Follow him at <https://twitter.com/iamahsanayaz> See More



Angular & Ionic - Wonders beyond imagination

Angular and Ionic have great history together. Combined, they can do wonders

AHSANAYAZ.COM



Creating complex Angular Animations using Keyframes

Pick Social Card Type

 Facebook

 Twitter





Creating complex Angular Animations using Keyframes

Pick Social Card Type



 Facebook



 Twitter



Commitment	Share
------------	-------








Commitment	Share
------------	-------

Commitment	Share
------------	-------



Employee




Bucket

Choose... 	Add to Bucket
Apple 	
Apple 	
Apple 	



Admin

Bucket 🛒

Apple 🍏	⬆️⬆️	Add to Bucket
Apple 🍏		
Apple 🍏		
Apple 🍏		

```
Angular is running in development mode. Call enableProdMode() to enable production mode. core.js:26833

bucket.component.ts:27
{element: div.fruits.ng-tns-c46-0.ng-trigger.ng-trigger-listAnimation
▶, triggerName: "listAnimation", fromState: "void", toState: 6, phaseName: "start", ...}

[WDS] Live Reloading enabled. client:52

bucket.component.ts:31
{element: div.fruits.ng-tns-c46-0.ng-trigger.ng-trigger-listAnimation
▶, triggerName: "listAnimation", fromState: "void", toState: 6, phaseName: "done", ...}
```

Home Page

Home Page Content

Home Page

Home Page Content

Chapter 05: Angular and RxJS – Awesomeness Combined



Working with RxJs operators using instance methods

Start Stream

Stop Stream

john wick
inception
interstellar

0
1
2
3
4
5
6
7
8
9



Working with RxJs operators using instance methods

Start Stream

Stop Stream

```
john wick  
inception  
interstellar
```

```
0  
1  
2  
0  
1  
2  
0
```




Working with RxJs operators using instance methods

Start Stream

Stop Stream

john wick
inception
interstellar

john wick
inception
interstellar
john wick
inception
interstellar
john wick



Working with RxJs operators using instance methods

Start Stream

Stop Stream

john wick
inception
interstellar

thunder cats
Dragon Ball Z
Ninja Turtles

thunder cats
john wick
Dragon Ball Z
inception
Ninja Turtles
thunder cats
interstellar
Dragon Ball Z
john wick
Ninja Turtles



Working with RxJs operators using static methods

Start Stream

Stop Stream

Title: john wick, Type: movie
Title: Thunder Cats, Type: cartoon
Title: inception, Type: movie
Title: Dragon Ball Z, Type: cartoon
Title: Ninja Turtles, Type: cartoon
Title: interstellar, Type: movie

Movies

Cartoons



Working with RxJs operators using static methods

Start Stream

Stop Stream

Title: john wick, Type: movie
Title: Thunder Cats, Type: cartoon
Title: inception, Type: movie
Title: Dragon Ball Z, Type: cartoon
Title: Ninja Turtles, Type: cartoon
Title: interstellar, Type: movie

Movies

john wick
inception
interstellar
john wick

Cartoons

Thunder Cats
Dragon Ball Z
Ninja Turtles
Thunder Cats

Elements Console Sources >> ⚙️ ⋮ ✕

⏮ ⏪ top 🔍 Filter Default levels ⌵ ⚙️

▶ {type: "movie", title: "john wick"} app.component.ts:60

app.component.ts:60

▶ {type: "cartoon", title: "Thunder Cats"} app.component.ts:60

▶ {type: "movie", title: "inception"} app.component.ts:60

app.component.ts:60

▶ {type: "cartoon", title: "Dragon Ball Z"} app.component.ts:60

app.component.ts:60

▶ {type: "cartoon", title: "Ninja Turtles"} app.component.ts:60

app.component.ts:60

▶ {type: "movie", title: "interstellar"} app.component.ts:60

▶ {type: "movie", title: "john wick"} app.component.ts:60

>

Start Stream Stop Stream

john wick
inception
interstellar

← → ↻ localhost:4200/about

A

Unsubscribing streams to avoid memory leaks

Home

About

about works!

Elements

Console

Sources

top

Filter

Default levels

stream output 0

home.component.ts:25

stream output 1

home.component.ts:25

stream output 2

home.component.ts:25

stream output 3

home.component.ts:25

stream output 4

home.component.ts:25

stream output 5

home.component.ts:25

>

A

Using Async Pipe

Home

About

john wick
inception
interstellar

0
1
0
2
3
4
1
0
5
6

Elements

Console

Sources

top

Filter

Default levels

fastest stream output 0

home.component.ts:51

fastest stream output 1

home.component.ts:51

stream output 0

home.component.ts:37

fastest stream output 2

home.component.ts:51

fastest stream output 3

home.component.ts:51

fastest stream output 4

home.component.ts:51

stream output 1

home.component.ts:37

second stream output 0

home.component.ts:44

fastest stream output 5

home.component.ts:51

fastest stream output 6

home.component.ts:51

>

A

Using combineLatest to subscribe to multiple streams together

Background Color

Text Color

Border Radius

Size

#FF6633

#FFB399

4

100

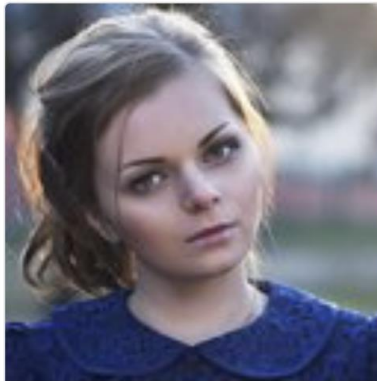
Change Styles

Hello World!



Using the flatMap operator to create sequential http calls

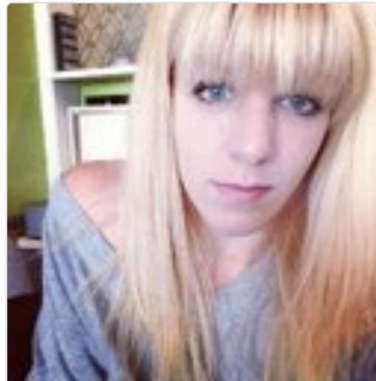
Users



Heidy Rodriguez

heidy.rodriguez@example.com

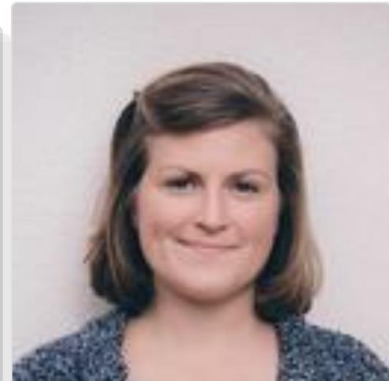
078 173 71 77



Terra Barrett

terra.barrett@example.com

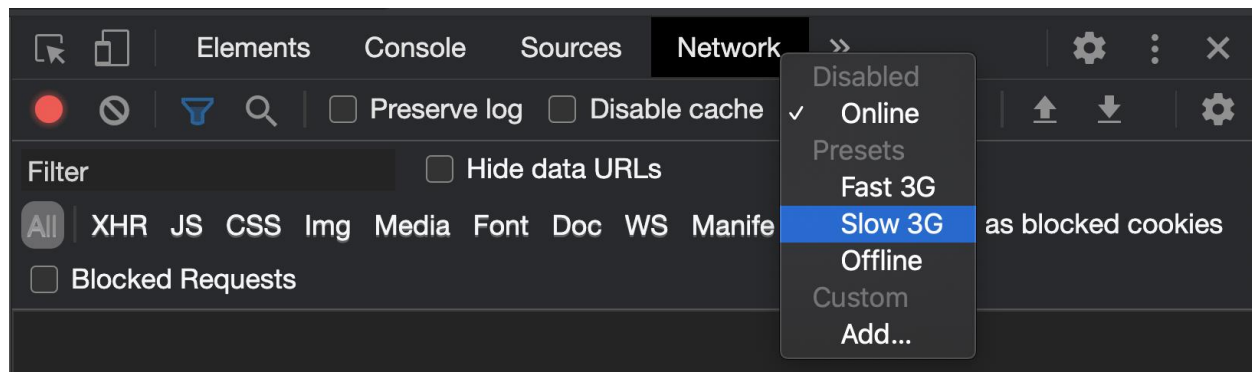
09-8663-5466

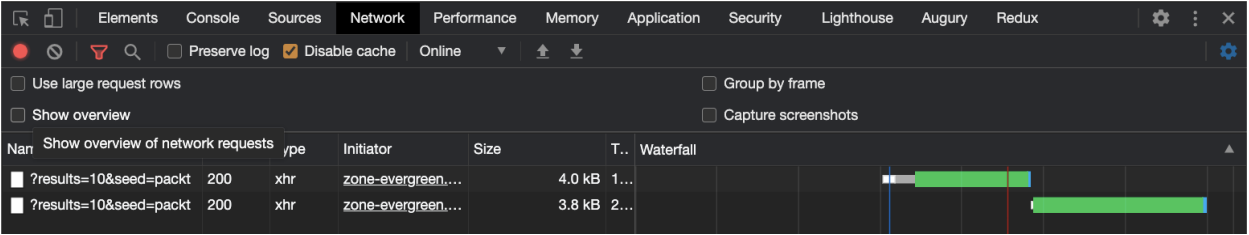
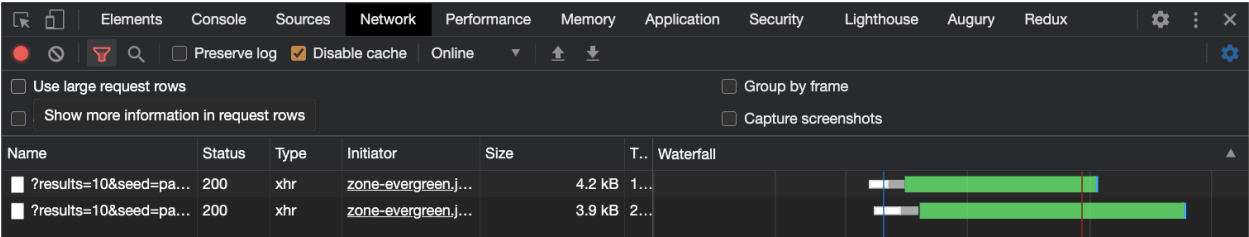


Alyssa Adam

alyssa.adam@example.com

01-08-17-90-22







Using the switchMap operator to switch the last subscription with a new one

Users



Irineu da Rocha

irineu.darocha@example.com

(04) 4008-4776



أنيتا حسيني

anyt.hsny@example.com

018-24992756



Elfie Siegert

elfie.siegert@example.com

0630-1857878



Network									
results									
<input type="checkbox"/> Hide data URLs <input checked="" type="checkbox"/> XHR <input type="checkbox"/> JS <input type="checkbox"/> CSS <input type="checkbox"/> Img <input type="checkbox"/> Media <input type="checkbox"/> Font <input type="checkbox"/> Doc <input type="checkbox"/> WS <input type="checkbox"/> Manifest <input type="checkbox"/> Other <input type="checkbox"/> Has blocked cookies <input type="checkbox"/> Blocked Requests									
<input type="checkbox"/> Use large request rows <input type="checkbox"/> Group by frame									
<input type="checkbox"/> Show overview <input type="checkbox"/> Capture screenshots									
Name	Status	Type	Initiator	Size	T...	Waterfall			
?results=10&seed=pa...	200	xhr	zone-evergreen.j...	4.0 kB	2...				
?results=10&seed=pa...	200	200	zone-evergreen.j...	3.8 kB	1...				
?results=10&seed=pa...	200	xhr	zone-evergreen.j...	3.8 kB	1...				
?results=10&seed=pa...	200	xhr	zone-evergreen.j...	4.0 kB	1...				

ElementsConsoleSourcesNetworkPerformanceMemoryApplicationSecurityLighthouseAuguryRedux

Preserve logDisable cacheOnline

results

Hide data URLsAllXHRJS CSS Img Media Font Doc WS Manifest OtherHas blocked cookiesBlocked Requests

Use large request rows

Group by frame

Show overview

Capture screenshots

Name	Status	Type	Initiator	Size	T..	Waterfall
?results=10&seed=pa...	(cance...	xhr	zone-evergreen.j...	0 B	7...	
?results=10&seed=pa...	(cance...	xhr	zone-evergreen.j...	0 B	3...	
?results=10&seed=pa...	(cance...	xhr	zone-evergreen.j...	0 B	7...	
?results=10&seed=pa...	200	xhr	zone-evergreen.j...	4.2 kB	2...	


A

Debouncing HTTP requests using RxJs

Users

Search user


Q



Irineu da Rocha

irineu.darocha@example.com


(04) 4008-4776



أنيتا حسيني

anyt.hsny@example.com


018-24992756





Elfie Siegert

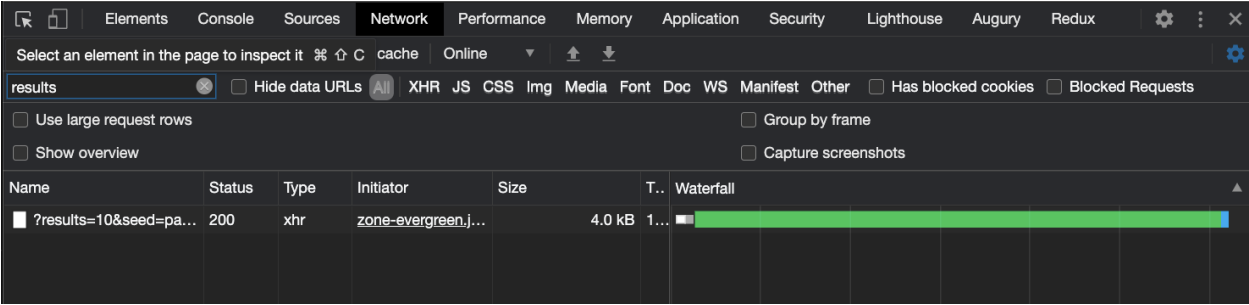
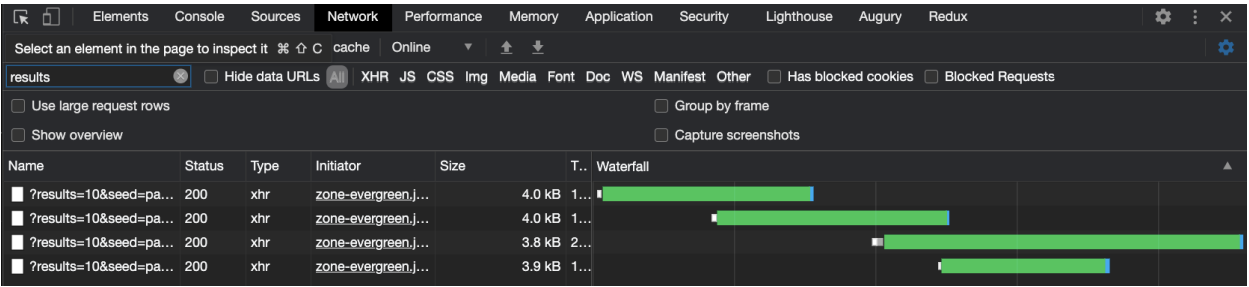
elfie.siegert@example.com

0630-1857878









Chapter 06: Reactive State Management with NgRx

 Creating your first NgRx store with actions and reducer

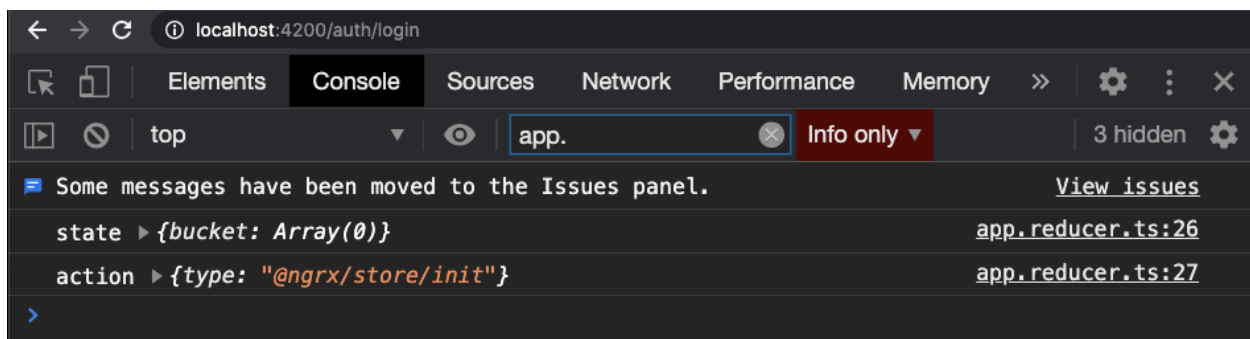
Logout

Admin

Bucket



No items in bucket. Add some fruits!



<div> <div></div> <div>Some messages have been moved to the Issues panel.</div> <div>View issues</div> </div>	
state ▶ {bucket: Array(0)}	app.reducer.ts:26
action ▶ {type: "@ngrx/store/init"}	app.reducer.ts:27
state ▶ {bucket: Array(0)}	app.reducer.ts:26
action ▶ {fruit: {...}, type: "[Bucket] Add Item"}	app.reducer.ts:27
state ▶ {bucket: Array(1)}	app.reducer.ts:26
action ▶ {fruit: {...}, type: "[Bucket] Add Item"}	app.reducer.ts:27
state ▶ {bucket: Array(2)}	app.reducer.ts:26
action ▶ {fruit: {...}, type: "[Bucket] Add Item"}	app.reducer.ts:27
state ▶ {bucket: Array(3)}	app.reducer.ts:26
action ▶ {fruit: {...}, type: "[Bucket] Add Item"}	app.reducer.ts:27
state ▶ {bucket: Array(4)}	app.reducer.ts:26
action ▶ {fruit: {...}, type: "[Bucket] Add Item"}	app.reducer.ts:27
<div> <div>></div> <div> </div> </div>	

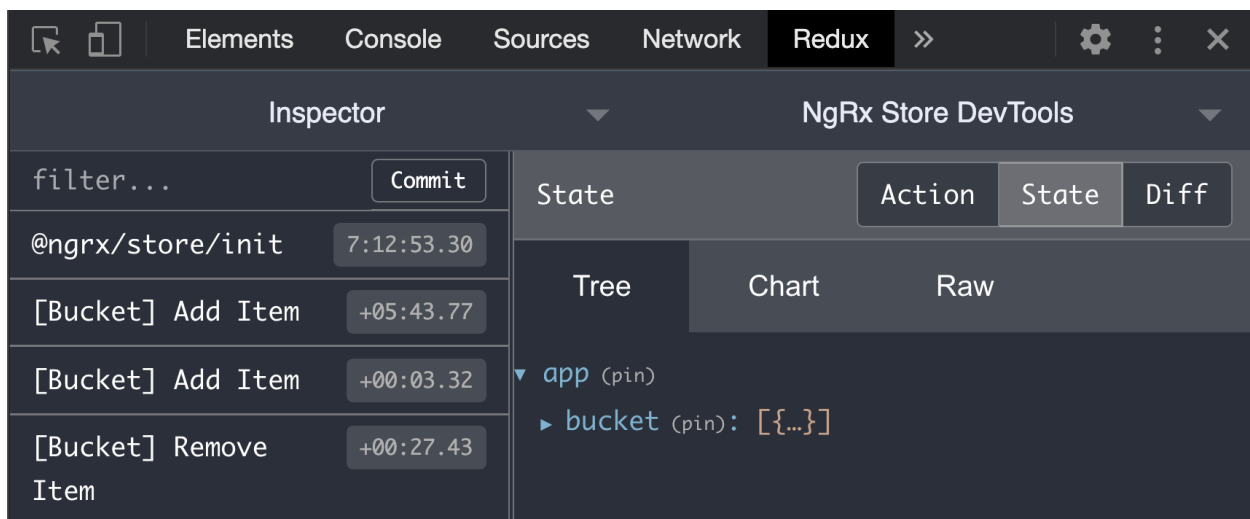
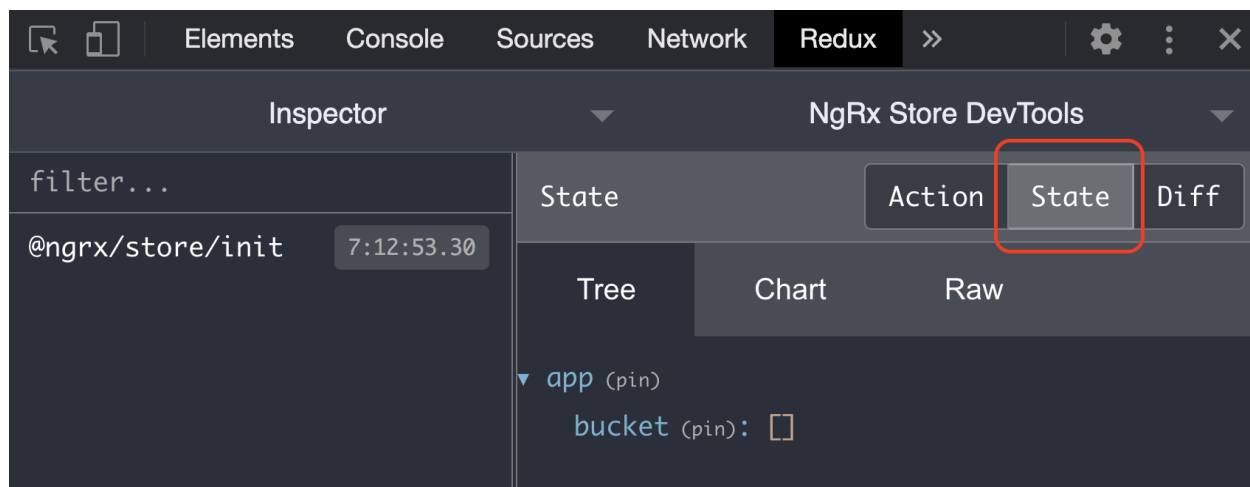
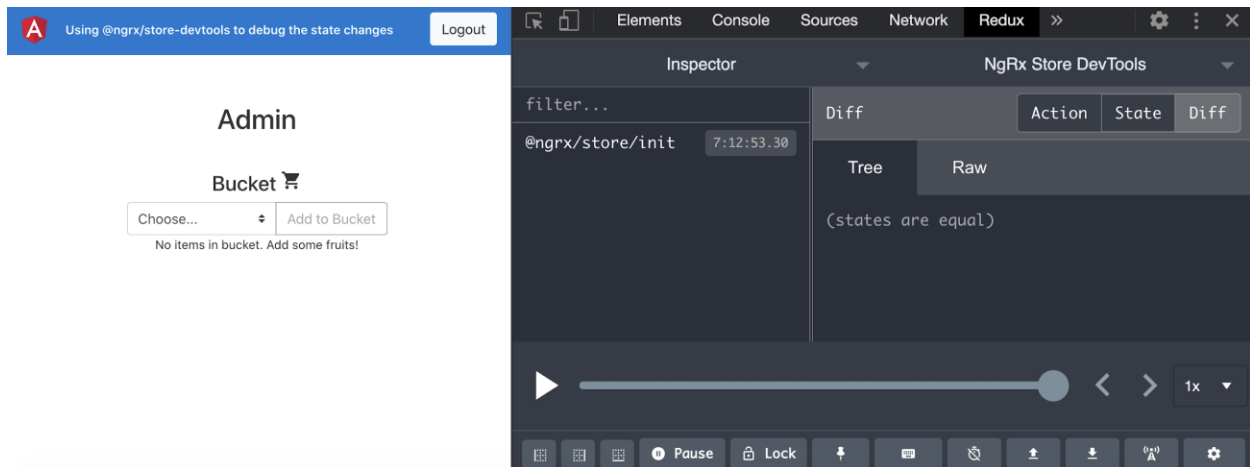
Admin

Bucket

Choose...

Add to Bucket

No items in bucket. Add some fruits!



Using @ngrx/store-devtools to debug the state changesLogout

Admin

Bucket 🛒

Banana 🍌

+

Add to Bucket

Cherry 🍒

+

Inspector

NgRx Store DevTools

filter...Commit

@ngrx/store/init7:24:38.96

[Bucket] Add Item+00:04.36

[Bucket] Add Item+00:02.43

[Bucket] RemoveItemJumpSkip

State

ActionStateDiff

TreeChartRaw

▼ app (pin)

▼ bucket (pin)

▼ 0 (pin)

id (pin): 1605205483319

name (pin): "Cherry 🍒"

Inspector

NgRx Store DevTools

filter...Commit

@ngrx/store/init7:28:40.72

[Bucket] Add Item+00:04.59

[Bucket] Add Item+00:03.27

[Bucket] RemoveItem+00:01.81

Diff

ActionStateDiff

TreeRaw

▼ app (pin)

▼ bucket (pin)

0 (pin): {id:1605205728586,name:'Banana 🍌'}

Inspector

NgRx Store DevTools

filter...Commit

@ngrx/store/init7:28:40.72

[Bucket] Add Item+00:04.59

[Bucket] Add Item+00:03.27

[Bucket] RemoveItem+00:01.81

Diff

ActionStateDiff

TreeRaw


▼ app (pin)

▼ bucket (pin)

0 (pin): {id:16052057285... 🍌'}

Creating an effect to fetch third party API data


Users



Irineu da Rocha

irineu.darocha@example.com

(04) 4008-4776



أنيتا حسيني

anyt.hsyny@example.com

018-24992756

Inspector

NgRx Store DevTools

filter...

@ngrx/store/init 9:39:24.77


State

Tree

app (pin)
users (pin): []

Creating an effect to fetch third party API data


Users



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Inspector

NgRx Store DevTools

filter... Commit

@ngrx/store/init 10:05:52.03

@ngrx/effects/init +00:00.01


Diff

Tree


(states are equal)

Creating an effect to fetch third party API data

Users



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Inspector

filter... Commit

@ngrx/store/init 10:11:55.03

@ngrx/effects/init +00:00.02

[Users] Get Users +00:00.06

[Users] Get Users Success

Jump Skip

NgRx Store DevTools


Diff Action State Diff

Tree Raw


(states are equal)

Creating an effect to fetch third party API data

Users



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anyt.hsny@example.com
018-24992756

Inspector

filter... Commit

@ngrx/store/init 10:22:47.07

@ngrx/effects/in... Jump Skip

[Users] Get Users +00:00.07

[Users] Get Users Success

Jump Skip

NgRx Store DevTools

Diff Action State Diff

Tree Raw

app (pin)

users (pin)

0 (pin): {gender:'male',name:{title:'Mr...',na
t:'BR'}}

1 (pin): {gender:'female',name:{title:'...',na
t:'IR'}}

2 (pin): {gender:'female',name:{title:'...',na
t:'DE'}}

3 (pin): {gender:'male',name:{title:'Mr...',na
t:'NZ'}}

4 (pin): {gender:'female',name:{title:'...',na
t:'NZ'}}

5 (pin): {gender:'male',name:{title:'Mr...',na
t:'BR'}}

6 (pin): {gender:'female',name:{title:'...',na

Inspector NgRx Store DevTools

filter... Commit

@ngrx/store/init 10:22:47.07

@ngrx/effects/init +00:00.02

[Users] Get Users +00:00.07

[Users] Get Users Success +00:01.10

State Action State Diff

Tree Chart Raw

▼ app (pin)

▼ users (pin)

- ▶ 0 (pin): { gender: "male", name: {...}, location: {...}, ... }
- ▶ 1 (pin): { gender: "female", name: {...}, location: {...}, ... }
- ▶ 2 (pin): { gender: "female", name: {...}, location: {...}, ... }
- ▶ 3 (pin): { gender: "male", name: {...}, location: {...}, ... }
- ▶ 4 (pin): { gender: "female", name: {...}, location: {...}, ... }
- ▶ 5 (pin): { gender: "male", name: {...}, location: {...}, ... }
- ▶ 6 (pin): { gender: "female", name: {...}, location: {...}, ... }
- ▶ 7 (pin): { gender: "female", name: {...}, location: {...}, ... }
- ▶ 8 (pin): { gender: "male", name: {...}, location: {...}, ... }
- ▶ 9 (pin): { gender: "male", name: {...}, location: {...}, ... }



Using NgRx selectors to fetch data from store

Users

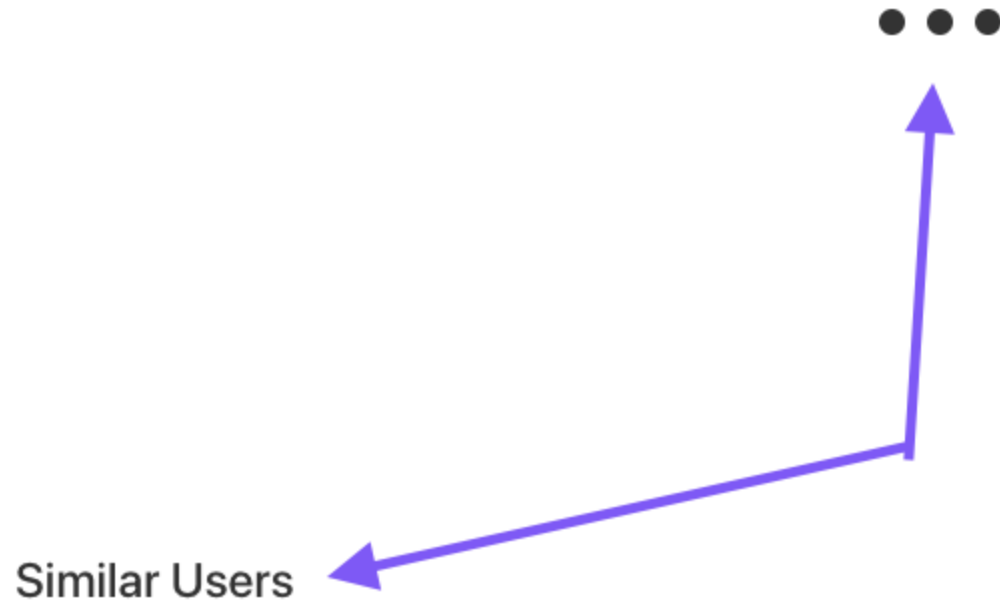


The above users data is taken from <https://randomuser.me/api/>.

I, (Muhammad Ahsan Ayaz) do not own or represent this. The data is here for learning and teaching purposes only.



Using NgRx selectors to fetch data from store



Using @ngrx/component-store for local state management within component

Logout

Admin

Bucket 🛒

Choose...



Add to Bucket

No items in bucket. Add some fruits!



Using @ngrx/router-store to work with route changes reactively

Users



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anyt.hsyny@example.com

018-24992756

Inspector

filter...Commit

@ngrx/store/init9:15:26.66

@ngrx/effects/init+00:00.01

@ngrx/router-store/request+00:00.02

@ngrx/router-store/navigation+00:00.01

@ngrx/router-store/navigated+00:00.01

[Users] Get Users+00:00.01

[Users] Get Users Success+00:00.37

NgRx Store DevTools

State

ActionStateDiff

TreeChartRaw

app (pin): { users: [...] }

router (pin)

state (pin)

root (pin): { params: {}, data: {}, url: [], ... }

url (pin): "/home"

navigationId (pin): 1

▶

◀▶1x

Pause recording

Lock changes

Persist

Dispatcher

Slider

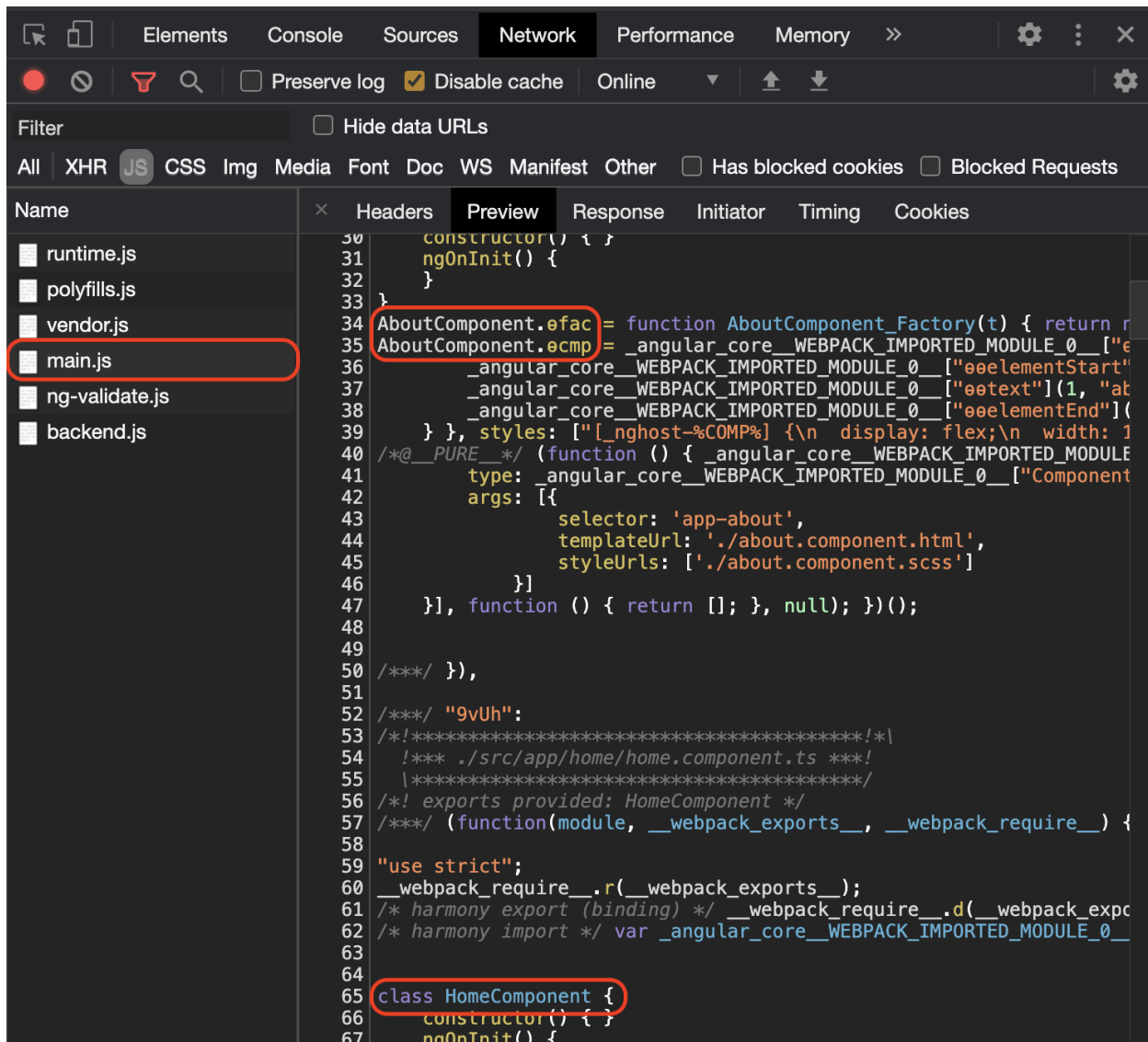
Import

Export

Remote

Settings

Chapter 07: Understanding Angular Navigation and Routing



Feature modules and lazily loaded routes Home About

Landing Works

Elements Console **Network** >> ⚙️ ⋮ ✕

⏹️ 🔍 ☐ Preserve log ☒ Disable cache Online ⚙️

Filter ☐ Hide data URLs

All XHR **JS** CSS Img Media Font Doc WS Manifest Other

☐ Has blocked cookies ☐ Blocked Requests

Name	St...	Type	Initiator	Size	T	Waterfall	▲
runtime.js	200	sc...	landing	6.6 kB	1.		
polyfills.js	200	sc...	landing	145 kB	1.		
vendor.js	200	sc...	landing	2.8 MB	7.		
main.js	200	sc...	landing	27.6 kB	1.		
ng-validat...	200	sc...	content-...	127 kB	5.		
backend.js	200	sc...	content-...	263 kB	3.		

6 / 11 requests 3.3 MB / 3.3 MB transferred 3.3 MB / 3.3 MB resources

Feature modules and lazily loaded routes Home About

Landing Works

Elements Console **Network** >> ⚙️ ⋮ ✕

⏹️ 🔍 ☐ Preserve log ☒ Disable cache Online ⚙️

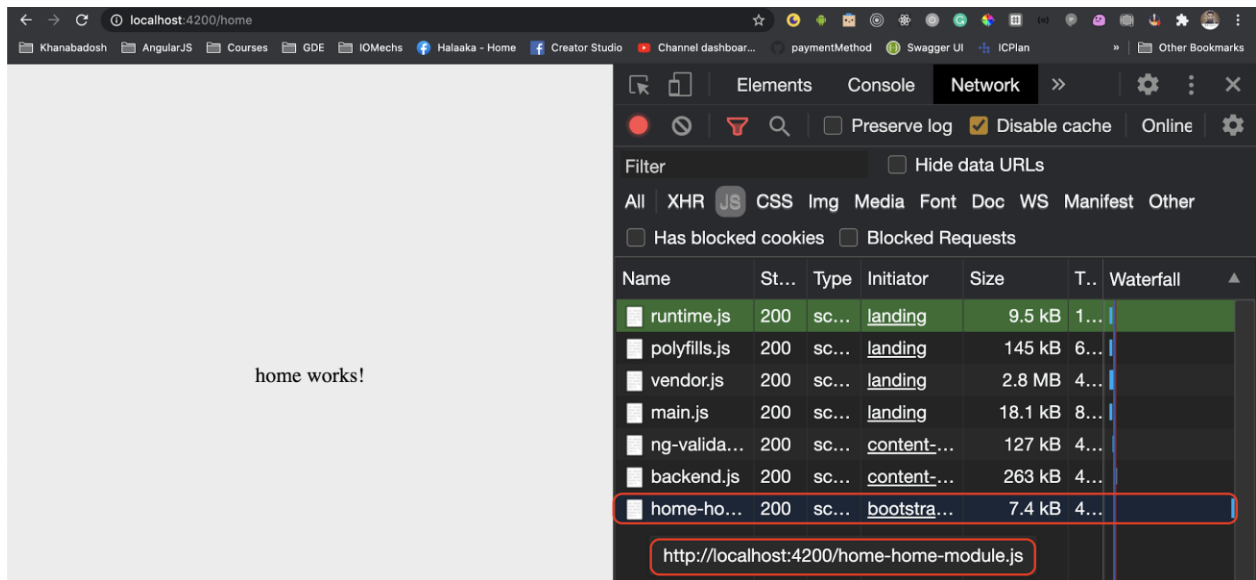
Filter ☐ Hide data URLs

All XHR **JS** CSS Img Media Font Doc WS Manifest Other

☐ Has blocked cookies ☐ Blocked Requests

Name	St...	Type	Initiator	Size	T	Waterfall	▲
runtime.js	200	sc...	landing	9.5 kB	1.		
polyfills.js	200	sc...	landing	145 kB	6.		
vendor.js	200	sc...	landing	2.8 MB	4.		
main.js	200	sc...	landing	18.1 kB	1.		
ng-validat...	200	sc...	content-...	127 kB	6.		
backend.js	200	sc...	content-...	263 kB	3.		

6 / 11 requests 3.3 MB / 3.3 MB transferred 3.3 MB / 3.3 MB resources



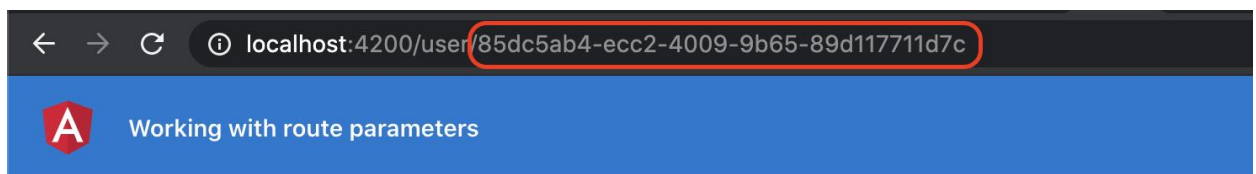
Similar Users



```

[WDS] Live Reloading enabled.
client:52
✖ ERROR Error: Uncaught (in promise): Error: Cannot match any routes. URL Segment: 'user'    core.js:6006
Error: Cannot match any routes. URL Segment: 'user'
    at ApplyRedirects.noMatchError (router.js:2474)
    at CatchSubscriber.selector (router.js:2458)
    at CatchSubscriber.error (catchError.js:27)
    at MapSubscriber._error (Subscriber.js:75)
    at MapSubscriber.error (Subscriber.js:55)
    at MapSubscriber._error (Subscriber.js:75)
    at MapSubscriber.error (Subscriber.js:55)

```



Similar Users





Login as Admin

Login as Employee

Elements Console Sources Network Performance >> 2 ⚙ ⋮ ✕							
⛔ 🔍 <input type="checkbox"/> Preserve log <input checked="" type="checkbox"/> Disable cache Online ⬆ ⬇ ⚙							
Filter <input type="checkbox"/> Hide data URLs							
All XHR JS CSS Img Media Font Doc WS Manifest Other <input type="checkbox"/> Has blocked cookies							
<input type="checkbox"/> Blocked Requests							
Name	S...	T...	Initiator	Size	Time	Waterfall	▲
runtime.js	200	s...	login	9.7 kB	5 ms		
polyfills.js	200	s...	login	145 kB	7 ms		
vendor.js	200	s...	login	3.1 MB	57 ms		
main.js	200	s...	login	27.5 kB	10 ms		
auth-auth-module.js	200	s...	bootst...	10.5 kB	4 ms		
ng-validate.js	200	s...	conte...	127 kB	29 ms		
backend.js	200	s...	conte...	263 kB	40 ms		

Elements

Console

Sources

Network

Performance

>>

2

Preserve log

☒ Disable cache

Online

Stop recording network log

⌘ E

Hide data URLs

All

XHR

JS

CSS

Img

Media

Font

Doc

WS

Manifest

Other

☐ Has blocked cookies

☐ Blocked Requests

Name	S...	T...	Initiator	Size	Time	Waterfall
runtime.js	200	s...	login	9.7 kB	12 ms	
polyfills.js	200	s...	login	145 kB	19 ms	
vendor.js	200	s...	login	3.1 MB	87 ms	
main.js	200	s...	login	27.7 kB	18 ms	
auth-auth-module.js	200	s...	bootst...	10.5 kB	4 ms	
ng-validate.js	200	s...	conte...	127 kB	56 ms	
default~admin-admin-module~...	200	s...	bootst...	19.4 kB	15 ms	
admin-admin-module.js	200	s...	bootst...	8.0 kB	10 ms	
employee-employee-module.js	200	s...	bootst...	8.3 kB	11 ms	
backend.js	200	s...	conte...	263 kB	21 ms	

⏮

📄

Elements

Console

Sources

Network

Performance

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📄 2

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☐ Preserve log

☒ Disable cache

Online

▼

⬆

⬇

⚙

Filter

☐ Hide data URLs

All

XHR

JS

CSS

Img

Media

Font

Doc

WS

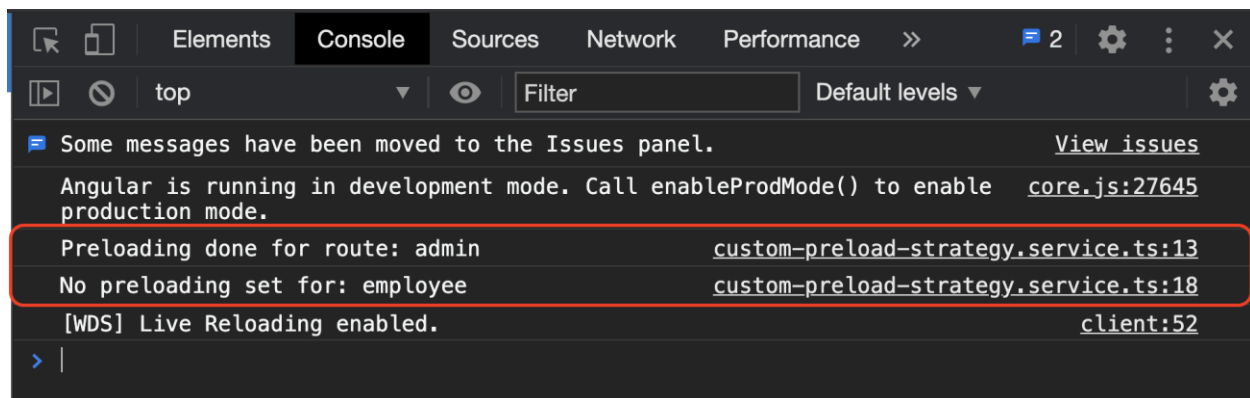
Manifest

Other

☐ Has blocked cookies

☐ Blocked Requests

Na	Only show blocked requests	S...	T...	Initiator	Size	Time	Waterfall	▲
📄	runtime.js	200	s...	login	9.7 kB	5 ms		
📄	polyfills.js	200	s...	login	145 kB	6 ms		
📄	vendor.js	200	s...	login	3.1 MB	52 ms		
📄	main.js	200	s...	login	30.2 kB	8 ms		
📄	auth-auth-module.js	200	s...	bootst...	10.5 kB	3 ms		
📄	ng-validate.js	200	s...	conte...	127 kB	41 ms		
📄	default~admin-admin-module~...	200	s...	bootst...	19.4 kB	7 ms		
📄	admin-admin-module.js	200	s...	bootst...	8.0 kB	5 ms		
📄	backend.js	200	s...	conte...	263 kB	24 ms		



The image shows the Chrome DevTools Console with the 'Console' tab selected. The interface includes a top bar with tabs for Elements, Console, Sources, Network, and Performance. Below the tabs, there's a filter input set to 'top' and a 'Default levels' dropdown. The console log contains several messages: a blue information icon followed by 'Some messages have been moved to the Issues panel.' with a 'View issues' link; a message about Angular's development mode; and two log entries related to preloading, which are highlighted with a red rectangle. The first highlighted entry is 'Preloading done for route: admin' from 'custom-preload-strategy.service.ts:13'. The second is 'No preloading set for: employee' from 'custom-preload-strategy.service.ts:18'. Below these is a message '[WDS] Live Reloading enabled.' from 'client:52'. The console ends with a prompt '> |'.

```
Some messages have been moved to the Issues panel. View issues  
Angular is running in development mode. Call enableProdMode() to enable production mode.  
Preloading done for route: admin custom-preload-strategy.service.ts:13  
No preloading set for: employee custom-preload-strategy.service.ts:18  
[WDS] Live Reloading enabled. client:52  
> |
```

Chapter 08: Mastering Angular Forms



Creating your first Template-Driven Angular form

Releases Logs





Creating your first Template-Driven Angular form

Select App

Drive App

Version Number

0.0.2

Use semantic versioning (x.x.x)

Submit

Releases Logs

Version 0.0.2 released for app Drive App

Version 0.0.2 released for app Calendar App

Version 0.0.0 released for app Calendar App



Form validation with Template-Driven Forms

Select App

Calendar App

Version Number

0.0.0

Use semantic versioning (x.x.x)

Submit

Releases Logs



Form validation with Template-Driven Forms

Select App

--Choose--

Please choose an app

Version Number

Enter version number

Use semantic versioning (x.x.x)

Please write an appropriate version number

Submit

Releases Logs



Testing Template-Driven Forms

Select App

Calendar App

Version Number

0.0.0

Use semantic versioning (x.x.x)

Submit

Releases Logs

Karma v 6.3.2 - connected; test: complete;

Chrome 90.0.4430.212 (Mac OS 10.15.7) is idle

 Jasmine 3.6.0

● ● ● ● ● ✖

6 specs, 1 failure, randomized with seed 81739

Spec List | Failures

ReleaseFormComponent > should create

Error: NG0301: Export of name 'ngForm' not found!. Find more at <https://angular.io/errors/NG0301>

error properties: Object({ code: '301' })

Error: NG0301: Export of name 'ngForm' not found!. Find more at <https://angular.io/errors/NG0301>

```
at cacheMatchingLocalNames (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core
at resolveDirectives (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/__ivy_
at elementStartFirstCreatePass (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/
at ɵɵelementStart (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/__ivy_ng
at ReleaseFormComponent_Template (ng:///ReleaseFormComponent.js:29:9)
at executeTemplate (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/__ivy_n
at renderView (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/__ivy_ngcc__
at renderComponent (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/__ivy_n
at renderChildComponents (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/_
at renderView (http://localhost:9876/_karma_webpack_/webpack:/node_modules/@angular/core/__ivy_ngcc__
```


Chrome is being controlled by automated test software.

Testing Template-Driven Forms

6 specs, 0 failures, randomized with seed 79325 finished in 0.139s

- VersionControlComponent
 - should create
- ReleaseLogsComponent
 - should create
- ReleaseFormComponent
 - should create
- AppComponent
 - should have as title 'Testing Template-Driven Forms'
 - should create the app
 - should render title

Chrome is being controlled by automated test software.

 **Jasmine** 3.6.0 [Options](#)

7 specs, 0 failures, randomized with seed 96836 finished in 0.193s

- AppComponent
 - should create the app
 - should render title
 - should have as title 'Testing Template-Driven Forms'
- ReleaseLogsComponent
 - should create
- VersionControlComponent
 - should create
- ReleaseFormComponent
 - should create
 - should submit a new release log with the correct input values

← → ↻ ⓘ localhost:9876/debug.html

Chrome is being controlled by automated test software.



9 specs, 0 failures, randomized with seed 19992 finished in 0.224s

ReleaseFormComponent

- should disable the submit button when we don't have an app selected
- should create
- should submit a new release log with the correct input values
- should disable the submit button when version is incorrect

ReleaseLogsComponent

- should create

VersionControlComponent

- should create

AppComponent

- should have as title 'Testing Template-Driven Forms'
- should render title
- should create the app



Creating your first Reactive Form

Select App

--Choose--



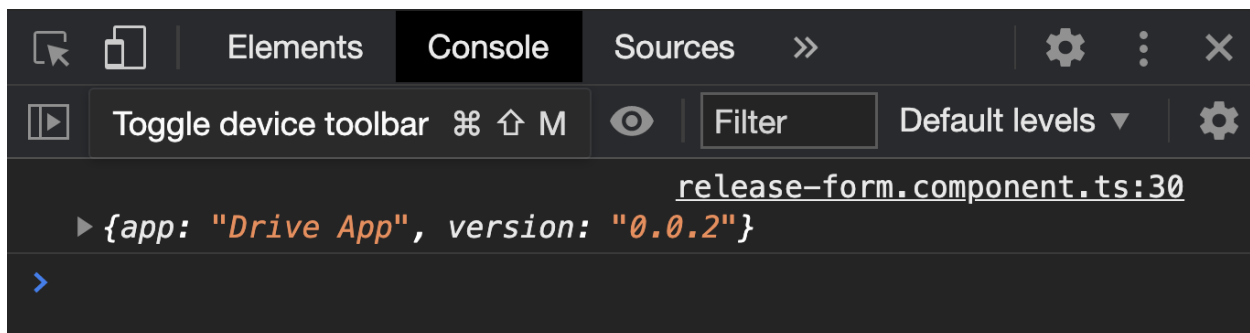
Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs



localhost:4200

Creating your first Reactive Form

Select App

Contacts App

Version Number

0.0.02

Use semantic versioning (x.x.x)

Submit

Releases Logs

Version 0.0.02 released for app Contacts App

```
release-form.component.ts:30
> {app: "Contacts App", version: "0.0.02"}
>
```

localhost:4200

Validating Reactive Forms

Select App

--Choose--

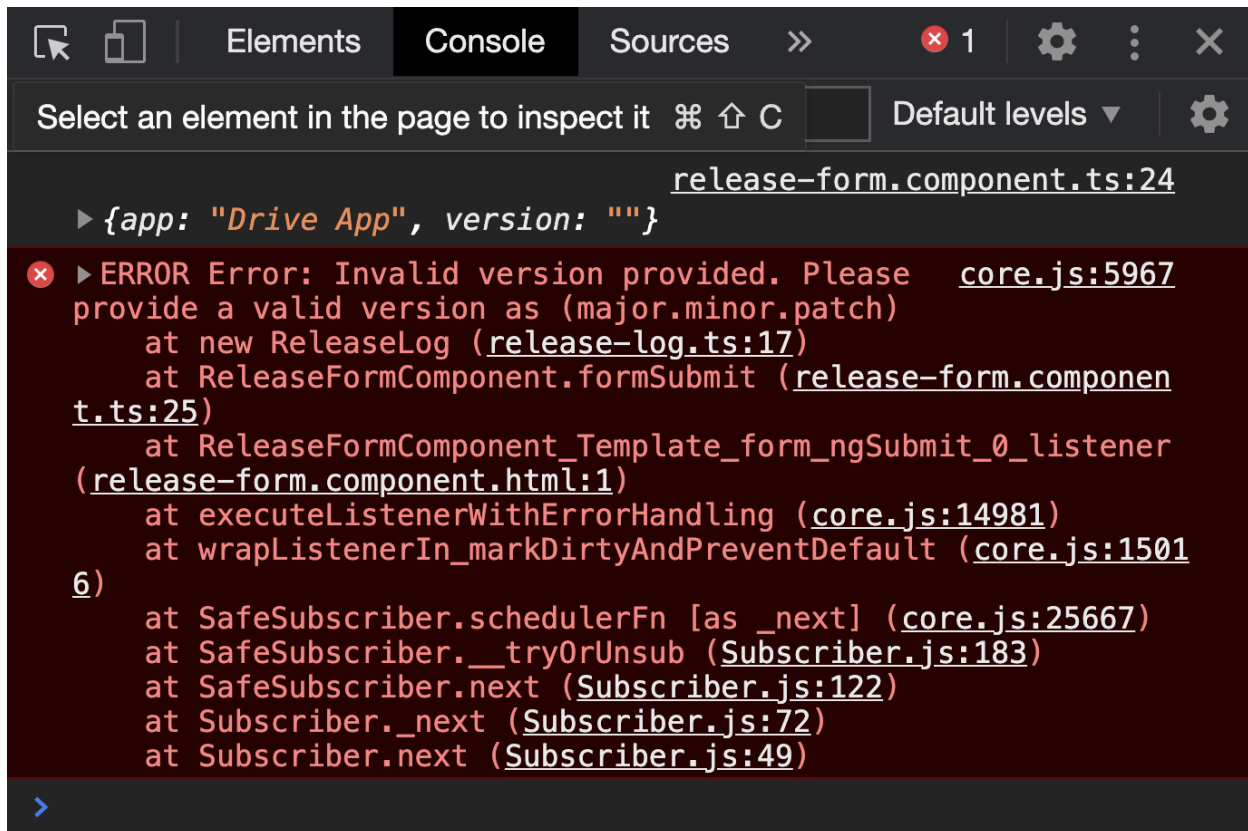
Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs



Select App

--Choose-- ▾

Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs

Select App

--Choose-- ▾

Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs



Creating an Asynchronous Validator Function

Select App

Drive App



Version Number

0.0.2

Use semantic versioning (x.x.x)

The version number should be
greater than the last version
'2.0.0'

Submit

Releases Logs





Creating an Asynchronous Validator Function

Select App

Drive App ▼

Version Number

0.0.0

Use semantic versioning (x.x.x)

Please wait...

Releases Logs



Testing Reactive Forms

Select App

--Choose-- ▼

Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs

Karma v5.1.1 - connected

DEBUG

Chrome 87.0.4280.88 (Mac OS 10.15.7) is idle



Options

6 specs, 0 failures, randomized with seed 21621

finished in 0.135s

- AppComponent
 - should create the app
 - should have as title 'Testing Reactive Forms'
 - should render title
- ReleaseFormComponent
 - should create
- ReleaseLogsComponent
 - should create
- VersionControlComponent
 - should create

Karma v5.1.1 - connected

DEBUG

Chrome 87.0.4280.88 (Mac OS 10.15.7) is idle



Options

6 specs, 0 failures, randomized with seed 53369

finished in 0.143s

- ReleaseFormComponent
 - should submit a new release log with the correct input values
- AppComponent
 - should create the app
 - should render title
 - should have as title 'Testing Reactive Forms'
- ReleaseLogsComponent
 - should create
- VersionControlComponent
 - should create



8 specs, 0 failures, randomized with seed 65313

finished in 0.136s

ReleaseLogsComponent

- should create

VersionControlComponent

- should create

ReleaseFormComponent

- should submit a new release log with the correct input values
- should throw an error for a new release log with the incorrect version values
- should disable the submit button when we don't have an app selected

AppComponent

- should render title
- should create the app
- should have as title 'Testing Reactive Forms'



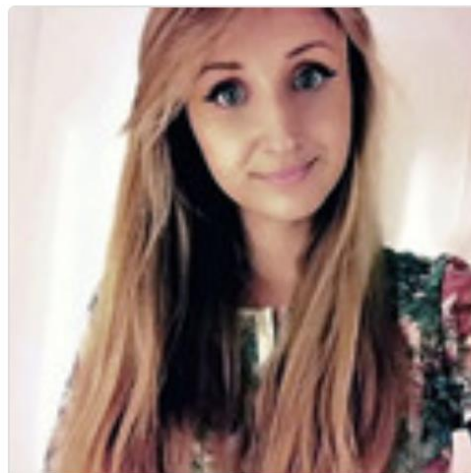
Users



Irineu da Rocha

irineu.darocha@example.com

(04) 4008-4776



آنيٲا حسيٲي

anyt.hsyny@example.com


018-24992756

← → ↻ ⓘ localhost:4200/home

☆ 🌈 🍷 📺 ⚙️ 📄 👤 ⋮

Using debounce with Reactive Form Control

Users



🔍 📄

Elements Console Sources Network Performance Memory >> 84 ⚙️ ⋮ ✕

🔴 🚫 🔍 ☐ Preserve log ☒ Disable cache Online ⌵ ⬆️ ⬇️ ⚙️

Filter ☐ Hide data URLs All XHR JS CSS Img Media Font Doc WS Manifest Other

☐ Has blocked cookies ☐ Blocked Requests

Name	St...	T...	Initiator	Size	Time	Waterfall
■ ?results=10&seed=packt	200	xhr	zone-ev...	4.0 kB	666...	
■ ?results=10&seed=packt	200	xhr	zone-ev...	3.8 kB	606...	
■ ?results=10&seed=packt	200	xhr	zone-ev...	4.0 kB	550...	

3 / 10 requests 11.9 kB / 45.2 kB transferred 32.5 kB / 63.1 kB resources

Chrome is being controlled by automated test software.



Karma v5.1.1 - connected

DEBUG

Chrome 87.0.4280.88 (Mac OS 10.15.7) is idle

 Jasmine 3.6.0

Options

11 specs, 0 failures, randomized with seed 14745

finished in 0.151s

UserDetailComponent

- should create

HomeComponent

- should not send an http request before the debounceTime of 300ms
- should send an http request after the debounceTime of 300ms
- should create

AppComponent

- should create the app
- should have as title 'Using debounce with Reactive Form Control'
- should render title

UserCardComponent

- should create

UserService

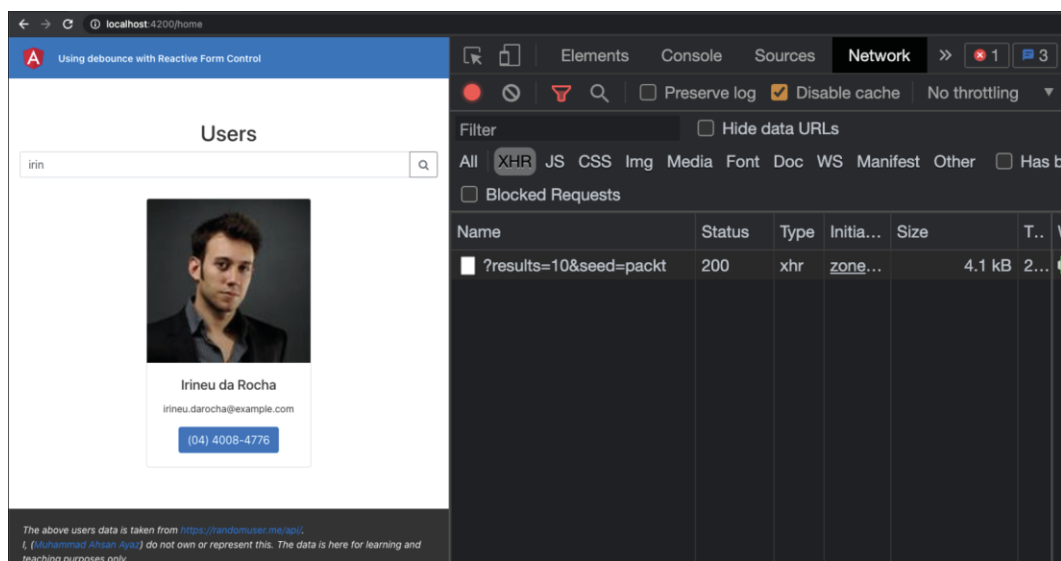
- should be created

AppFooterComponent

- should create

LoaderComponent

- should create



The screenshot shows a web application running on localhost:4200. The application has a search bar with the text 'irin' and a search button. Below the search bar, there is a user profile card for 'Irineu da Rocha' with a photo, email 'irineu.darocha@example.com', and a phone number '(04) 4008-4776'. The footer of the application contains a disclaimer: 'The above users data is taken from https://randomuser.me/api/. (Muhammad Ahsan Ayyaz) do not own or represent this. The data is here for learning and teaching purposes only.'

The right side of the image shows the Chrome DevTools Network tab. It displays a list of network requests. The first request is an XHR request to '?results=10&seed=packt' with a status of 200, type of xhr, and a size of 4.1 kB. The 'XHR' filter is selected, and the 'Blocked Requests' checkbox is unchecked.



Submit Review

Rating

Comment

Submit



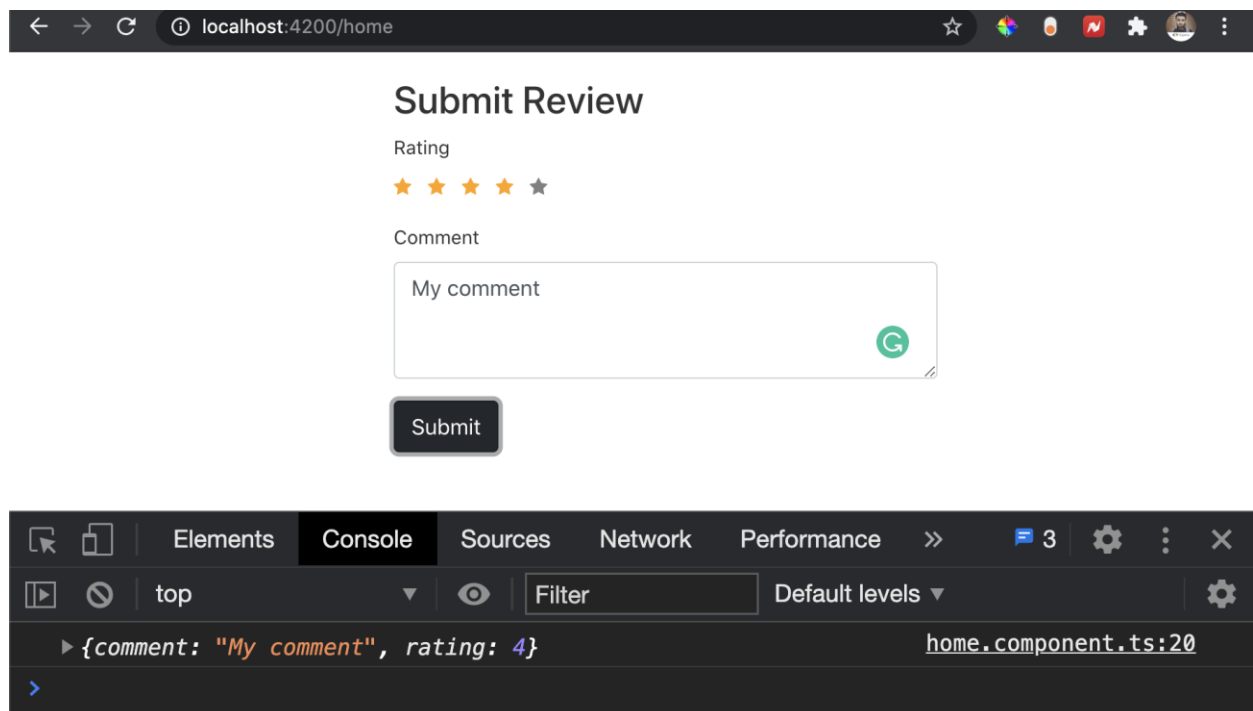
Submit Review

Rating



Comment

Submit



Chapter 09: Angular and the Angular CDK



Using Virtual Scroll for HUGE Lists

Our trusted customers

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420-383-9370



Paige_Collins69@hotmail.com

Ms. Carlos Marks

1-900-561-1118



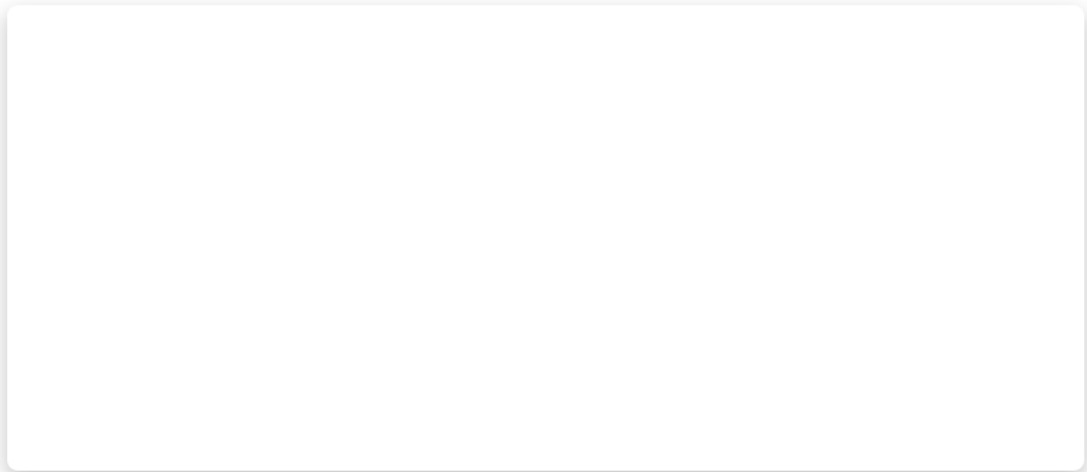



localhost:4200



Using Virtual Scroll for HUGE Lists

Our trusted customers



 U

div.list_item.list-group-item400 x 110.51

Background

#FFFFFF

Padding12px 20px

ACCESSIBILITY

Name


Rolegeneric

Keyboard-focusable

omers

Miss Marty Mayer


265-643-9755 x3881



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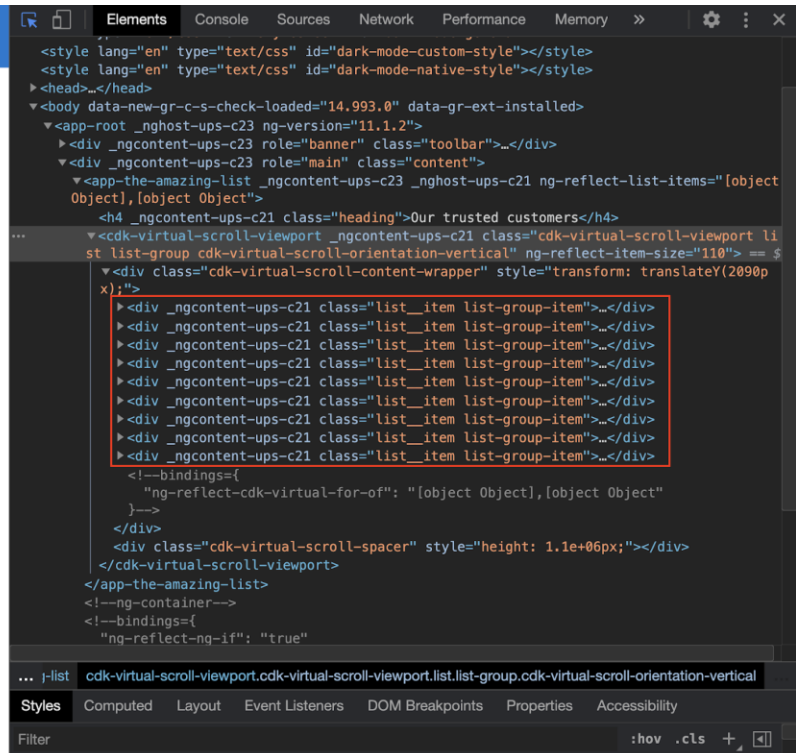
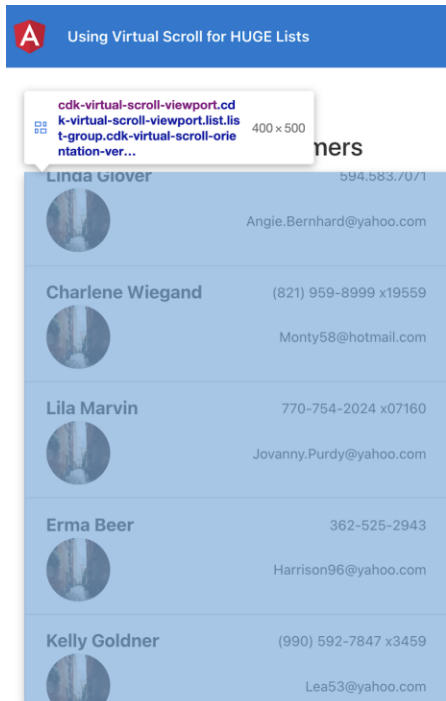


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Tracey Wintheiser V

894.758.1322







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


ChromeFileEditViewHistoryBookmarksPeopleTabWindowHelp

localhost:4200

Pointy little popovers with the Overlay API


Our trusted customers



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
Clemmie62@hotmail.com



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Brandon Mitchell


1-827-569-5184 x153

Nigel_Schuppe@yahoo.com

1 Duplicate


Edit

Delete



Meredith Boyer

894.758.1322



Tracey Wintheiser V

Elements

ConsoleSources

<!DOCTYPE html>
<html lang="en">
 <link type="text/css" rel="stylesheet" id="dark-mode-custom-link">
 <link type="text/css" rel="stylesheet" id="dark-mode-general-link">
 <style lang="en" type="text/css" id="dark-mode-custom-style"></style>
 <style lang="en" type="text/css" id="dark-mode-native-style"></style>
</head></html>
...<body data-new-gr-c-s-check-loaded="14.996.0" data-gr-ext-installed="">
 <app-root _ngghost-qkn-c34 ng-version="11.1.2"></app-root>
htmlbody
StylesComputedLayoutEvent ListenersDOM Breakpoints
Filter: :hov .cls +
element.style {
}
body {
 margin: > 0;
 font-family: -apple-system,BlinkMacSystemFont,"Segoe UI",Roboto,"Helvetica Neue",Arial,"Noto Sans",sans-serif,"Apple Color Emoji","Segoe UI Emoji","Segoe UI Symbol","Noto Color Emoji";
 font-size: 1rem;
 font-weight: 400;
 line-height: 1.5;
 color: #212529;
 text-align: left;
 background-color: #fff;
}
*, ::after, ::before {
 box-sizing: border-box;
}
body {
 display: block;
}



Pointy little popovers with the Overlay API

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1-



Nigel_S

Duplicate

Edit

Delete

Tracey Wintheiser V

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Meredith Boyer

1-



Nigel_S

Duplicate

Edit

Delete

Tracey Wintheiser V

894.758.1322





Copy From

<https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css>

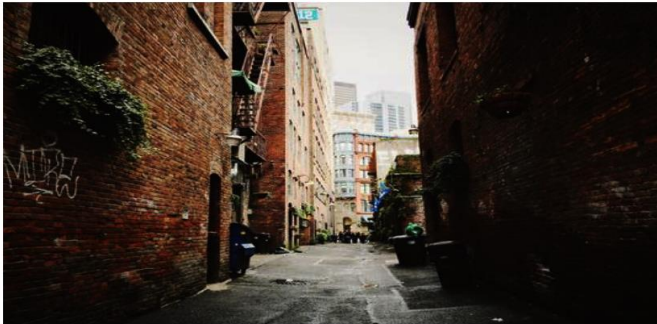
Click input to copy link

Lorem ipsum dolor sit amet, consectetur adipiscing elit,

sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Ut enim ad minim veniam, quis nostrud exercitation

Copy text to clipboard



Copy image to clipboard

Paste Here

Paste using Ctrl+V, or Cmd+V etc



Using CDK Drag And Drop to move items from one list to another

Tap a folder to view its files



Work



Personal



Community

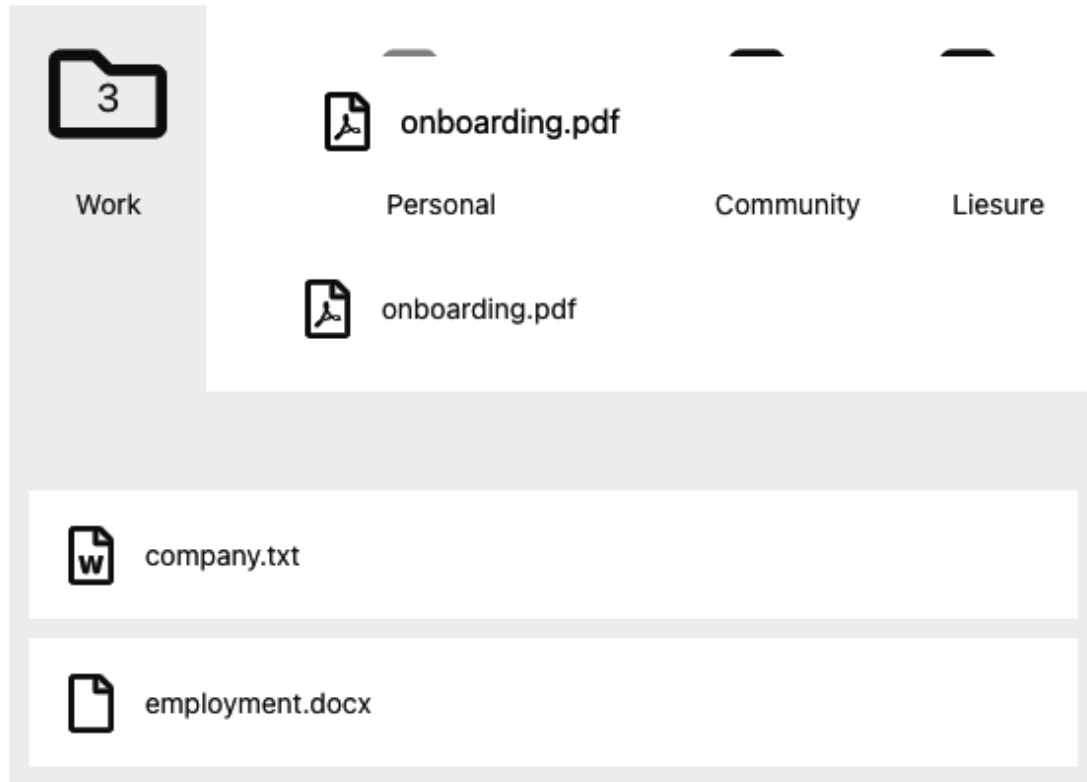


Liesure



Using CDK Drag And Drop to move items from one list to another

Tap a folder to view its files





Creating a multi-step game with CDK Stepper API

1

2

3

4

5

6



Leaderboard

No scores to show



Creating a multi-step game with CDK Stepper API



Enter your name

Player Name

Submit





Creating a multi-step game with CDK Stepper API



Results

Leaderboard		
1	Ahsan	800
2	Panda	100
3	Saleem	50
4	John Wick	50





Resizable text inputs with CDK TextField API



Hello there



Hi



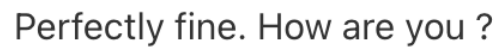
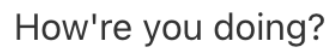
How're you doing?



Perfectly fine. How are you ?

you? Perfectly fine. How are you? Perfectly fine.
How are you? Perfectly fine. How are you?







Resizable text inputs with CDK TextField API



How're you doing?



Perfectly fine. How are you ?



Perfectly fine. How are you? Perfectly fine.
How are you? Perfectly fine. How are you?
Perfectly fine. How are you? Perfectly fine.
How are you? Perfectly fine. How are you?
Perfectly fine. How are you? Perfectly fine.
How are you? Perfectly fine. How are you?
Perfectly fine. How are you? Perfectly fine.
How are you?

Enter your message here



Chapter 10: Writing Unit Tests in Angular with Jest



Setting up unit tests in Angular with Jest

Counter

0

Increment

Reset

Decrement


← → ↻ ⓘ localhost:9876/?id=33787194 🔍 ☆ 👤 ⋮

Chrome is being controlled by automated test software. ✕

Karma v5.2.3 - connected

DEBUG

Chrome 88.0.4324.192 (Mac OS 11.2.1) is idle

 **Jasmine** 3.6.0 Options

● ● ● ● ● ●

6 specs, 0 failures, randomized with seed 02213 finished in 0.126s

- AppComponent
 - should have as title 'Setting up unit tests in Angular with Jest'
 - should render title
 - should create the app
- CounterComponent
 - should increment the counter value upon tapping increment button
 - should decrement the counter value upon tapping decrement button
 - should reset the counter value upon tapping reset button

Counter

0

IncrementResetDecrement

```
ahsanayaz@Muhammads-MBP setting-up-jest % yarn test
yarn run v1.22.4
$ jest
PASS src/app/components/counter/counter.component.spec.ts
PASS src/app/app.component.spec.ts

Test Suites: 2 passed, 2 total
Tests: 6 passed, 6 total
Snapshots: 0 total
Time: 4.396 s, estimated 6 s
Ran all test suites.
✨ Done in 5.71s.
```



Providing global mocks for Jest

Counter

Max 10, Min -10

8

Increment

Reset

Decrement

FAIL src/app/components/counter/counter.component.spec.ts

- CounterComponent > should retrieve value from localStorage on component init

expect(received).toBeCalled()

Matcher error: received value must be a mock or spy function

Received has type: function

Received has value: [Function getItem]

```
70 |     spyOn(localStorage, 'getItem');
71 |     component.ngOnInit();
> 72 |     expect(localStorage.getItem).toBeCalled();
    |                                   ^
73 |   });
74 | });
75 |
```

at src/app/components/counter/counter.component.spec.ts:72:34

Test Suites: 1 failed, 1 passed, 2 total

Tests: 1 failed, 5 skipped, 3 passed, 9 total

Snapshots: 0 total

Time: 4.153 s



Mocking services using stubs

Counter

Max 10, Min -10

-2

Increment

Reset

Decrement

● CounterComponent > should save the new counterValue to localStorage on increment, decrement and reset

```
expect(spy).toHaveBeenCalledWith(...expected)
```

Expected: "counterValue", "1"

Number of calls: 0

```
79 | component.counter = 0;
80 | component.increment();
> 81 | expect(localStorage.setItem).toHaveBeenCalledWith('counterValue', '1');
    |                               ^
82 | component.counter = 20;
83 | component.decrement();
84 | expect(localStorage.setItem).toHaveBeenCalledWith('counterValue', '19');
```

```

ahsanayaz@Muhammads-MBP using-spies-on-injected-service % yarn test
$ jest
PASS src/app/core/services/counter.service.spec.ts
FAIL src/app/components/counter/counter.component.spec.ts
  ● CounterComponent > should retrieve the last saved value from localStorage on component init

    expect(received).toBe(expected) // Object.is equality

    Expected: 12
    Received: -10

    70 |
    71 |     component.ngOnInit();
    > 72 |     expect(component.counter).toBe(12);
       |                               ^
    73 |
    74 |   });
    75 |   it('should save the new counterValue to localStorage on increment, decrement and reset', () => {

      at src/app/components/counter/counter.component.spec.ts:72:31
      at ZoneDelegate.Object.<anonymous>.ZoneDelegate.invoke (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:407:30)
      at ProxyZoneSpec.Object.<anonymous>.ProxyZoneSpec.onInvoke (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:3765:43)
      at ZoneDelegate.Object.<anonymous>.ZoneDelegate.invoke (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:406:56)
      at Zone.Object.<anonymous>.Zone.run (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:167:47)
      at Object.wrappedFunc (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:4250:34)

PASS src/app/app.component.spec.ts

Test Suites: 1 failed, 2 passed, 3 total
Tests: 1 failed, 11 passed, 12 total
Snapshots: 0 total
Time: 3.361 s, estimated 6 s
Ran all test suites.
error Command failed with exit code 1.

```



Mocking components using ng-mocks

Select App

--Choose--



Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs



```

PASS src/app/app.component.spec.ts
  ● Console

    console.error
      NG0304: 'app-version-control' is not a known element:
        1. If 'app-version-control' is an Angular component, then verify that it is part of this module
        2. If 'app-version-control' is a Web Component then add 'CUSTOM_ELEMENTS_SCHEMA' to the '@NgModule.schemas' of this component to suppress this message.

      at logUnknownElementError (../packages/core/src/render3/instructions/element.ts:220:15)
      at elementStartFirstCreatePass (../packages/core/src/render3/instructions/element.ts:41:16)
      at ɵɵelementStart (../packages/core/src/render3/instructions/element.ts:87:7)
      at ɵɵelement (../packages/core/src/render3/instructions/element.ts:180:3)
      at AppComponent_Template (ng:/AppComponent.js:16:9)
      at executeTemplate (../packages/core/src/render3/instructions/shared.ts:511:5)
      at renderView (../packages/core/src/render3/instructions/shared.ts:301:7)
      at renderComponent (../packages/core/src/render3/instructions/shared.ts:1765:3)

```

```

components-with-ng-mocks
> jest "-t" "AppComponent"

```

```

PASS src/app/app.component.spec.ts
  ● Console

    console.error
      NG0304: 'app-version-control' is not a known element:
        1. If 'app-version-control' is an Angular component, then verify that it is part of this module
        2. If 'app-version-control' is a Web Component then add 'CUSTOM_ELEMENTS_SCHEMA' to the '@NgModule.schemas' of this component to suppress this message.

      at logUnknownElementError (../packages/core/src/render3/instructions/element.ts:220:15)
      at elementStartFirstCreatePass (../packages/core/src/render3/instructions/element.ts:41:16)
      at ɵɵelementStart (../packages/core/src/render3/instructions/element.ts:87:7)
      at ɵɵelement (../packages/core/src/render3/instructions/element.ts:180:3)
      at AppComponent_Template (ng:/AppComponent.js:16:9)
      at executeTemplate (../packages/core/src/render3/instructions/shared.ts:511:5)
      at renderView (../packages/core/src/render3/instructions/shared.ts:301:7)
      at renderComponent (../packages/core/src/render3/instructions/shared.ts:1765:3)

```

```

ahsanayaz@Muhammads-MBP mocking-components-with-ng-mocks % npm run test -- -t 'AppComponent'

> mocking-components-with-ng-mocks@0.0.0 test /Users/ahsanayaz/Packt/ng-cook-book/ch11/final/mocking-components-with-ng-mocks
> jest "-t" "AppComponent"

PASS src/app/app.component.spec.ts

Test Suites: 3 skipped, 1 passed, 1 of 4 total
Tests: 5 skipped, 3 passed, 8 total
Snapshots: 0 total
Time: 4.375 s
Ran all test suites with tests matching "AppComponent".

```



Select App

Drive App



Version Number

Enter version number

Use semantic versioning (x.x.x)

Submit

Releases Logs





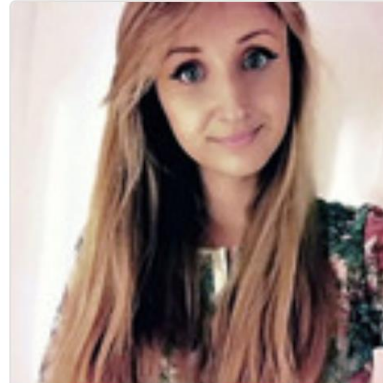
Users



Irineu da Rocha

irineu.darocha@example.com

(04) 4008-4776



آنيٲا حسيٲي

anyt.hsyny@example.com

018-24992756

```
PASS src/app/core/components/user-card/user-card.component.spec.ts
PASS src/app/app.component.spec.ts
PASS src/app/core/components/app-footer/app-footer.component.spec.ts
PASS src/app/user-detail/user-detail.component.spec.ts
PASS src/app/core/services/user.service.spec.ts
FAIL src/app/users/users.component.spec.ts
  ● UsersComponent > should get users back from the API component init

    Cannot make XHRs from within a fake async test. Request URL: https://api.randomuser.me?results=10&seed=packt

      at FakeAsyncTestZoneSpec.Object.<anonymous>.FakeAsyncTestZoneSpec.onScheduleTask (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:5352:39)
      at ProxyZoneSpec.Object.<anonymous>.ProxyZoneSpec.onScheduleTask (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:3781:43)
      at ZoneDelegate.Object.<anonymous>.ZoneDelegate.scheduleTask (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:421:55)
      at Zone.Object.<anonymous>.Zone.scheduleTask (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:255:47)
      at Zone.Object.<anonymous>.Zone.scheduleMacroTask (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:278:29)
      at scheduleMacroTaskWithCurrentZone (node_modules/zone.js/bundles/zone-testing-bundle.umd.js:723:29)
      at node_modules/zone.js/bundles/zone-testing-bundle.umd.js:3422:32
```


FAIL src/app/user-detail/user-detail.component.spec.ts

● Console

```
console.log
  params ParamsAsMap { params: {} }

    at MergeMapSubscriber.project (src/app/user-detail/user-detail.component.ts:28:19)

console.log
  params ParamsAsMap { params: {} }

    at MergeMapSubscriber.project (src/app/user-detail/user-detail.component.ts:28:19)

console.log
  params ParamsAsMap { params: {} }

    at MergeMapSubscriber.project (src/app/user-detail/user-detail.component.ts:28:19)
```

● **UserDetailComponent > should get the user based on routeParams on page load**

expect(received).toBeTruthy()

Received: undefined

```
47 |     component.ngOnInit();
48 |     tick(500);
> 49 |     expect(component.user).toBeTruthy();
    |                             ^
50 |   }));
```

```
console.log
  params ParamsAsMap {
    params: { uuid: 'd2775083-57a8-4034-983b-844cbd58aba1' }
  }

    at MergeMapSubscriber.project (src/app/user-detail/user-detail.component.ts:28:19)
```

PASS src/app/users/users.component.spec.ts

Test Suites: 7 passed, 7 total
Tests: 12 passed, 12 total
Snapshots: 0 total
Time: 5.156 s
Ran all test suites.
🌟 Done in 6.80s.

```
ch11 > final > unit-testing-observables > node_modules > jest-preset-angular > build > JS setup-jest.js > ...
1  'use strict';
2  require('./reflect-metadata');
3  try {
4    require('zone.js/bundles/zone-testing-bundle.umd.js');
5  }
6  catch (err) {
7    require('zone.js/dist/zone');
8    require('zone.js/dist/proxy');
9    require('zone.js/dist/sync-test');
10   require('zone.js/dist/async-test');
11   require('zone.js/dist/fake-async-test');
12   require('./zone-patch');
13 }
14 var getTestBed = require('@angular/core/testing').getTestBed;
15 var BrowserDynamicTestingModule = require('@angular/platform-browser-dynamic/testing').BrowserDynamicTestingModule;
16 var platformBrowserDynamicTesting = require('@angular/platform-browser-dynamic/testing')
17   .platformBrowserDynamicTesting;
18 getTestBed().initTestEnvironment(BrowserDynamicTestingModule, platformBrowserDynamicTesting());
19
```



Digit

1

Max Multiplication Factor

10

Digit: 1

Max Factor: 10

$$1 * 1 = 1$$

$$1 * 2 = 2$$

$$1 * 3 = 3$$

$$1 * 4 = 4$$

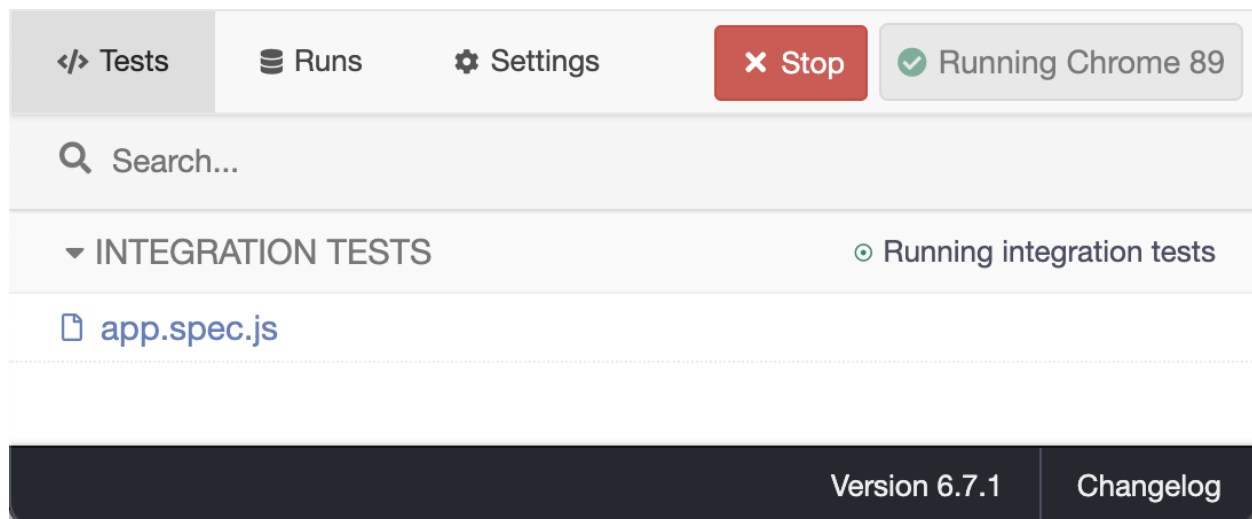
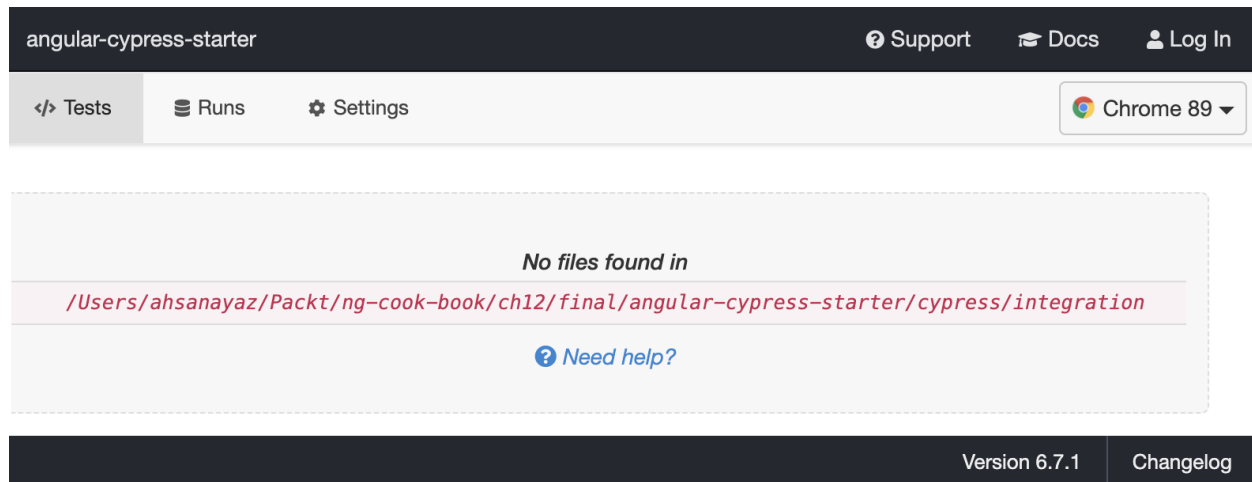
$$1 * 5 = 5$$

$$1 * 6 = 6$$

$$1 * 7 = 7$$

$$1 * 8 = 8$$

Chapter 11: E2E Tests in Angular with Cypress



angular-cypress-starter

localhost:4200/_/#/tests/_all

Chrome is being controlled by automated test software.

< Tests 1 00.81 http://localhost:4200/ 1080 x 760 (82%)

All Specs

App

✓ should have the title "Writing your first Cypress test"

BEFORE EACH

1 visit /

TEST BODY

1 title

2 -assert expected Writing your first Cypress test to equal Writing your first Cypress test

(xhr) GET 200 /sockjs-node/info?t=161596...

Writing your first Cypress test

Counter

Max 10, Min -10

0

Increment Reset Decrement

/Users/ahsanayaz/Packt/ng-cook-book/ch12/final/cypress-dom-element-visibility

cypress-dom-element-visibility Support Docs Log In

</> Tests Runs Settings Chrome 89

Search...

INTEGRATION TESTS Run 1 integration spec

app.spec.js

Version 6.7.1 Changelog

< Tests

✓ 2

✗ 1

○ --

05.47

● ↑

↺

All Specs

- ✓ should have the title "Validating if a DOM element is visible on the view"
- ✓ should show the counter component when the "Toggle Counter Visibility" button is clicked

✗ should show the action buttons on hovering the counter card



BEFORE EACH

1 visit /

TEST BODY

1 contains Toggle Counter Visibility

2 -click

(xhr) GET 200 /sockjs-node/info?t=1616023364180

3 get .counter

4 -trigger mouseover

5 get .counter__actions__action

6 -assert expected [<div.counter__actions__action.btn.btn-primary>, 2 more...] to have a length of 3

7 contains Increment

8 -assert expected <div.counter__actions__action.btn.btn-primary> to be visible

AssertionError

Timed out retrying after 4000ms: expected '<div.counter__actions__action.btn.btn-primary>' to be 'visible'

This element <div.counter__actions__action.btn.btn-primary> is not visible because its parent <div.counter__actions> has CSS property: display: none

cypress/integration/app.spec.js:28:30

```
26 |   cy.get('.counter').trigger('mouseover');  
27 |   cy.get('.counter__actions__action').should('have.length', 3);
```

< Tests

✓ 3

✗ --

○ --

01.25

⬇ ⬆ ⬇

⌂

http://localhost:4200/

1080 x 760 (66%)

All Specs

▼ App

✓ should have the title "Validating if a DOM element is visible on the view"

✓ should show the counter component when the "Toggle Counter Visibility" button is clicked

✓ should show the action buttons on hovering the counter card

▼ BEFORE EACH

1 visit /

▼ TEST BODY

1 contains Toggle Counter Visibility

2 -click

(xhr) GET 200 /sockjs-node/info?t=1616023686463

3 get .counter

4 -realHover

5 get .counter__actions__action

6 -assert expected [<div.counter__actions__action.btn.btn-primary>, 2 more...] to have a length of 3

7 contains Increment

8 -assert expected <div.counter__actions__action.btn.btn-primary> to be visible

9 contains Decrement

10 -assert expected <div.counter__actions__action.btn.btn-primary> to be visible

11 contains Reset

12 -assert expected <div.counter__actions__action.btn.btn-dark> to be visible

Validating if a DOM element is visible on the view

Toggle Counter Visibility

Counter

Max 10, Min -10

(hover me)

0

cy-testing-forms

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localhost:4200/_/#/tests/integration/app.spec.js

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⋮

Chrome is being controlled by automated test software.

< Tests

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⌂

http://localhost:4200/

1080 x 760 (82%)

cypress/integration/app.spec.js

▼ App

✓ should have the title "Testing form inputs and submission"

▼ BEFORE EACH

1 visit /

▼ TEST BODY

1 title

2 -assert expected Testing form inputs and submission to equal Testing form inputs and submission

(xhr) GET 200 /sockjs-node/info?t=161626...

Testing form inputs and submission

Login to continue

Email address

Password

Submit

cy-testing-forms

localhost:4200/_/#/tests/integration/login.spec.js

Chrome is being controlled by automated test software.

Tests 1 13.39 http://localhost:4200/ 1080 x 760 (82%)

cypress/integration/login.spec.js

▼ Login

- ✓ should have the button disabled if the form inputs are not valid

BEFORE EACH

- 1 visit /

TEST BODY

- 1 contains Submit
- 2 -assert expected <button.btn.btn-primary> to be disabled
- 3 get #passwordInput
- 4 -type password123
- (xhr) GET 200 /sockjs-node/info?t=161635...
- 5 contains Submit
- 6 -assert expected <button.btn.btn-primary> to be disabled
- 7 get #emailInput
- 8 -type ahsanayaz@gmail.com
- 9 get #passwordInput
- 10 -clear
- 11 contains Submit
- 12 -assert expected <button.btn.btn-primary> to be disabled

Testing form inputs and submission

Login to continue

Email address

Password

Password is required

Submit

cy-testing-forms

localhost:4200/_/#/tests/integration/login.spec.js

Chrome is being controlled by automated test software.

Tests 5 05.86 http://localhost:4200/ 1080 x 760 (82%)

cypress/integration/login.spec.js

▼ Login

- ✓ should have the button disabled if the form inputs are not valid
- ✓ should submit the form with the correct values and show the success alert
- ✓ should hide the success alert on clicking close button
- ✓ should hide the success alert on changing the input
- ✓ should show the (required) input errors on invalid inputs

Testing form inputs and submission

Login to continue

Email address

Email is required

Password

Password is required

Submit

localhost:4200/_/#

waiting-for-xhr

localhost:4200/___/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

< Tests

✓ 2 ✗ --

02.03

↕ ↻

http://localhost:4200/users

1080 x 760 (82%)

cypress/integration/users.spec.js


▼ Users

✓ should get the users list from the server and display

✓ should get the users list on searching

Cypress: Waiting for XHR calls

Users



Irineu da Rocha

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(04) 4008-4776

waiting-for-xhr

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

Tests

11

05.42

http://localhost:4200/users

1080 x 760 (82%)

cypress/integration/users.spec.js

BEFORE EACH

1 visit /users

(xhr) GET 200 /?results=10&seed=packt

TEST BODY

1 get #searchInput

2 -type irin

(xhr) GET 200 /sockjs-node/info?t=16166...

3 get app-user-card 10

4 -assert expected 10 to equal 1

(xhr) GET 200 /?results=10&seed=packt

AssertionError

Timed out retrying after 4000ms: expected 10 to equal 1

cypress/integration/users.spec.js:17:30

15 | cy.get('#searchInput').type('irin'

16 | cy.get('app-user-card').should((dc

> 17 | expect(domList.length).equal(1);

18 | }

19 | });

20 | });


View stack trace

Print to console

Cypress: Waiting for XHR calls

Users

irin



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waiting-for-xhr

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

< Tests 2 -- 05.92

http://localhost:4200/users 1080 x 760 (82%)

cypress/integration/users.spec.js

Users

✓ should get the users list from the server and display

✓ should get the users list on searching

▶ ROUTES (1)

▼ BEFORE EACH

1 visit /users

(xhr) GET 200 /?results=10&seed=packt

▼ TEST BODY

1 get #searchInput

2 -type irin

(xhr) GET 200 /sockjs-node/info?t=161662...

3 wait @searchUsers

(xhr) GET 200 /?results=10&seed=packt

(req) https://api.randomuser.me... searchUsers


4 get app-user-card

5 -assert expected 1 to equal 1

Cypress: Waiting for XHR calls

Users

irin



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using-cypress-bundled-packag

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

< Tests 2 06.75

http://localhost:4200/users 1080 x 760 (82%)

cypress/integration/users.spec.js


Users

✓ should get the users list from the server and display

✓ should get the users list on searching

Cypress: Using bundled packages

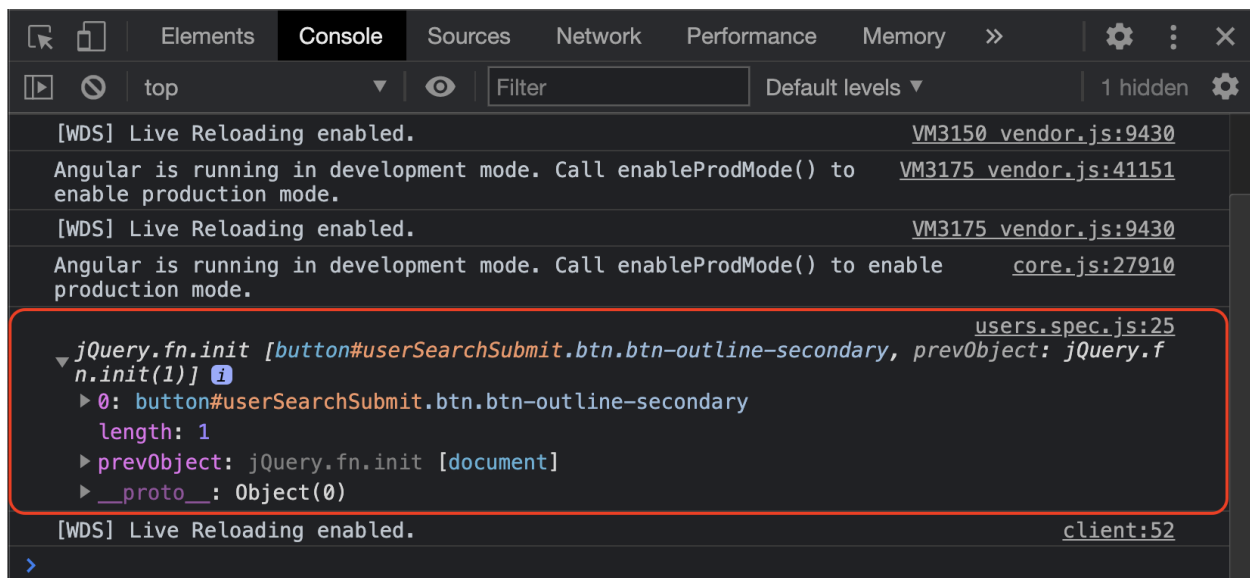
Users



Irineu da Rocha

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← → ↻ ⓘ localhost:4200/___/#/tests/integration/users.spec.js ☆ 👤 ⋮

Chrome is being controlled by automated test software. ✕

< Tests ✓ 3 ✕ -- ⏸ -- 07.23 ⬆ ⬆ ↻ 🔍 http://localhost:4200/users 1080 x 760 (38%) ⓘ


cypress/integration/users.spec.js

TEST BODY [Open in IDE](#)

- 1 wait 5000
- (xhr) GET 200 /sockjs-node/info?t=16168...
- 2 wrap <button#userSearchSubmit.btn.btn-ou...
- 3 -assert expected
<button#userSearchSubmit.btn.btn-outline-secondary> to have attribute disabled
- 4 get #searchInput
- 5 -type irin
- 6 wrap <button#userSearchSubmit.btn.btn-ou...
- 7 -assert expected
<button#userSearchSubmit.btn.btn-outline-secondary> not to have attribute disabled
- (xhr) GET 200 /?results=10&seed=packt

Users

irin


Irineu da Rocha
irineu.darocha@example.com
Thursday, March 6, 1975
[04] 4006-4776

Elements Console Sources Network Performance Memory >> ⚙ ⋮ ✕

top ▼ 🔍 Filter Default levels ▼ ⚙

users.spec.js:25
▶ jQuery.fn.init [button#userSearchSubmit.btn.btn-outline-secondary, prevObject: jQuery.fn.init(1)]

appUserCards ▼ jQuery.fn.init [prevObject: jQuery.fn.init(1)] ⓘ users.spec.js:28
length: 0
▶ prevObject: jQuery.fn.init [document]
▶ __proto__: Object(0)

[WDS] Live Reloading enabled. client:52
>

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

< Tests 4 03:35

cypress/integration/users.spec.js

✓ should return the same users as the seed data every time

BEFORE EACH

1 visit /users

(xhr) GET 200 /?results=10&seed=packt

TEST BODY

1 request GET 200 https://api.randomuser.me/?results=10&seed=packt

(xhr) GET 200 /sockjs-node/info?t=1616880323531

2 -assert expected Irineu to equal Irineu

3 -assert expected da Rocha to equal da Rocha

4 -assert expected irineu.darocha@example.com to equal irineu.darocha@example.com

5 -assert expected آنيئا to equal آنيئا

6 -assert expected حميني to equal حميني

7 -assert expected anyt.hsyny@example.com to equal anyt.hsyny@example.com

8 -assert expected Elfie to equal Elfie

9 -assert expected Siegert to equal Siegert

10 -assert expected elfie.siegert@example.com to equal elfie.siegert@example.com

11 -assert expected Hudson to equal Hudson

12 -assert expected Li to equal Li

13 -assert expected hudson.li@example.com to equal hudson.li@example.com

14 -assert expected Indie to equal Indie

15 -assert expected Hall to equal Hall

16 -assert expected indie.hall@example.com to equal indie.hall@example.com

17 -assert expected Austrelino to equal Austrelino

18 -assert expected Lima to equal Lima

19 -assert expected austrelino.lima@example.com to equal austrelino.lima@example.com

20 -assert expected Ruby to equal Ruby

21 -assert expected Flores to equal Flores

22 -assert expected ruby.flores@example.com to equal ruby.flores@example.com

23 -assert expected Lexi to equal Lexi

24 -assert expected Keijer to equal Keijer

25 -assert expected lexi.keijer@example.com to equal lexi.keijer@example.com

26 -assert expected Max to equal Max

Cypress: Using bundled packages

Users

Search user

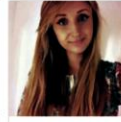


Irineu da Rocha

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Thursday, March 6, 1975

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Monday, November 21, 1955

079-24992756



Elfie Siegert

elfie.siegert@example.com

Friday, August 28, 1992

0630-1807878



using-cypress-fixtures

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

Tests 04.67

Open in IDE

cypress/integration/users.spec.js

Users

- ✓ should get the users list from the server and display
- ✓ should get the users list on searching
- ✓ should have the search button disabled when there is no input
- ✓ should return the same users as the seed data every time
- ✓ should show the formatted date of birth on the user card
- ✓ should go to the user details page with the user uuid

http://localhost:4200/users/85dc5ab4-ecc2-4009-9b65-89d117711d7c?ts=16169 1080 x 760 (65%)

Cypress: Using fixtures to provide mock data

Irineu da Rocha
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Thursday, March 6, 1975
(04) 4008-4776

Similar Users

Elements Console Sources Network Performance Memory Application Security Lighthouse

Preserve log Disable cache No throttling

Use large request rows Group by frame

Show overview Capture screenshots

Name	Headers	Preview	Response	Initiator	Timing
?results=10&seed=packt		<pre>{fixture_version: "1",...} fixture_version: "1" results: [{gender: "male", name: {title: "Mr", first: "Irineu", last: "da Rocha"},...},...]</pre>			
?results=10&seed=packt		<pre>0: {gender: "male", name: {title: "Mr", first: "Irineu", last: "da Rocha"},...}</pre>			
?results=10&seed=packt		<pre>1: {gender: "female", name: {title: "Mrs", first: "آنيثا", last: "حسيني"},...}</pre>			
?results=10&seed=packt		<pre>2: {gender: "female", name: {title: "Miss", first: "Elfie", last: "Siegert"},...}</pre>			
?results=10&seed=packt		<pre>3: {gender: "male", name: {title: "Mr", first: "Hudson", last: "Li"},...}</pre>			
?results=10&seed=packt		<pre>4: {gender: "female", name: {title: "Mrs", first: "Indie", last: "Hall"},...}</pre>			
?results=10&seed=packt		<pre>5: {gender: "male", name: {title: "Mr", first: "Austrelino", last: "Lima"},...}</pre>			
?results=10&seed=packt		<pre>6: {gender: "female", name: {title: "Mrs", first: "Ruby", last: "Flores"},...}</pre>			
?results=10&seed=packt		<pre>7: {gender: "female", name: {title: "Ms", first: "Lexi", last: "Keijer"},...}</pre>			
?results=10&seed=packt		<pre>8: {gender: "male", name: {title: "Mr", first: "Max", last: "Wang"},...}</pre>			
?results=10&seed=packt		<pre>9: {gender: "male", name: {title: "Mr", first: "Justin", last: "Grewal"},...}</pre>			

using-cypress-fixtures x +

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

Tests 6 3.10 http://localhost:4200/users/85dc5ab4-ecc2-4009-9b65-89d117711d7c?ts=16169 1080 x 760 (65%)

cypress/integration/users.spec.js

Users

- ✓ should get the users list from the server and display
- ✓ should get the users list on searching
- ✓ should have the search button disabled when there is no input
- ✓ should return the same users as the seed data every time
- ✓ should show the formatted date of birth on the user card
- ✓ should go to the user details page with the user uuid

ROUTES (11)

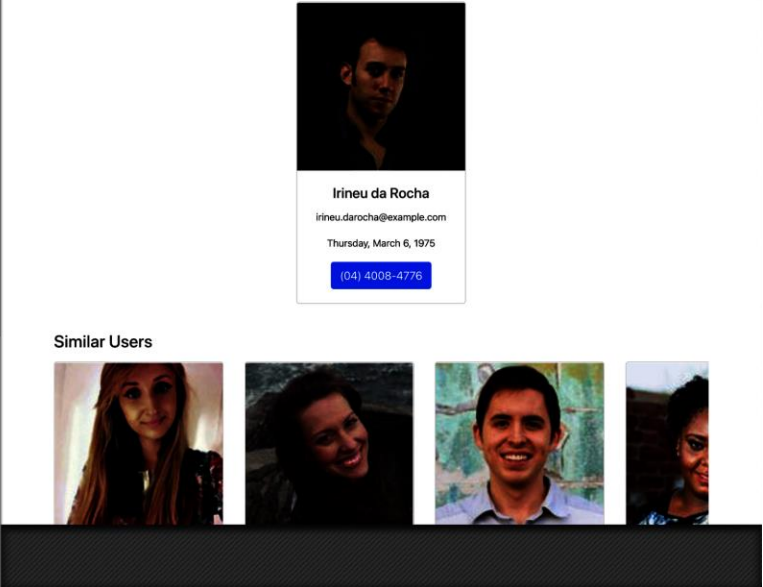
BEFORE EACH

- visit /users

TEST BODY

- get app-user-card

Similar Users



using-cypress-fixtures x +

localhost:4200/_/#/tests/integration/users.spec.js

Chrome is being controlled by automated test software.

Tests 6 3.44 http://localhost:4200/users/85dc5ab4-ecc2-4009-9b65-89d117711d7c?ts=16169 1080 x 760 (65%)

cypress/integration/users.spec.js

Users

- ✓ should get the users list from the server and display
- ✓ should get the users list on searching
- ✓ should have the search button disabled when there is no input
- ✓ should return the same users as the seed data every time
- ✓ should show the formatted date of birth on the user card
- ✓ should go to the user details page with the user uuid

ROUTES (11)

BEFORE EACH

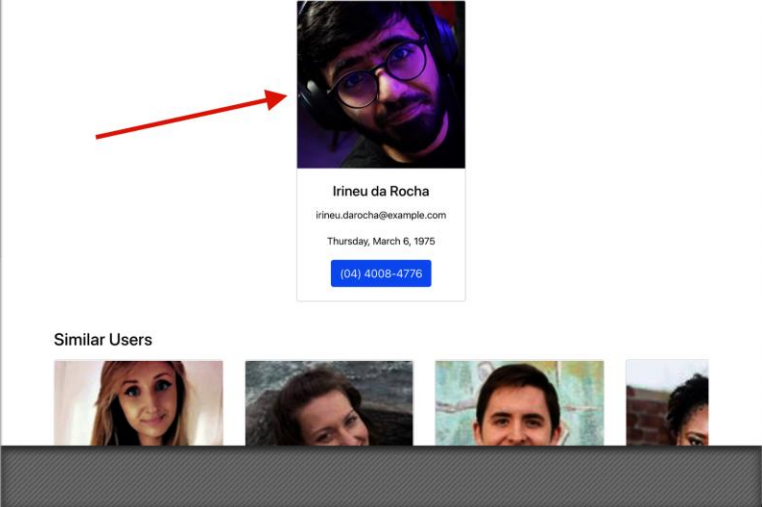
- visit /users

TEST BODY


- get app-user-card

Cypress: Using fixtures to provide mock data


Similar Users




Chapter 12: Performance Optimizations in Angular


 Using OnPush Change Detection

Users






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m
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i
[018-24992756](#)



Elfie Siebert
elfie.siebert@example.com
1z
[0630-1857878](#)

> appLogs

< {irineu.darocha@example.com: 6, anyt.h
▼ syny@example.com: 8, elfie.siegert@exa
mple.com: 12, hudson.li@example.com: 1
6, indie.hall@example.com: 20, ...} ⓘ

anyt.hsyny@example.com: 8

austrelino.lima@example.com: 24

elfie.siegert@example.com: 12

hudson.li@example.com: 16

indie.hall@example.com: 20

irineu.darocha@example.com: 6

justin.grewal@example.com: 40

lexi.keijer@example.com: 32

max.wang@example.com: 36

ruby.flores@example.com: 28

► __proto__: Object

> appLogs

< {irineu.darocha@example.com: 46, anyt.
hsyny@example.com: 60, elfie.siegert@e
▼xample.com: 96, hudson.li@example.com:
120, indie.hall@example.com: 150, ...}

i

anyt.hsyny@example.com: 60

austrelino.lima@example.com: 180

elfie.siegert@example.com: 96

hudson.li@example.com: 120

indie.hall@example.com: 150

irineu.darocha@example.com: 46

justin.grewal@example.com: 300

lexi.keijer@example.com: 240

max.wang@example.com: 270

ruby.flores@example.com: 210

► __proto__: Object

> appLogs

< {irineu.darocha@example.com: 2, anyt.h
▼ syny@example.com: 4, elfie.siegert@exa
mple.com: 8, hudson.li@example.com: 8,
indie.hall@example.com: 10, ...} **i**

anyt.hsyny@example.com: 4

austrelino.lima@example.com: 12

elfie.siegert@example.com: 8

hudson.li@example.com: 8

indie.hall@example.com: 10

irineu.darocha@example.com: 2

justin.grewal@example.com: 20

lexi.keijer@example.com: 16

max.wang@example.com: 18

ruby.flores@example.com: 14

► __proto__: Object



Users



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T

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anyt.hsny@example.com

D

018-24992756



Elfie Siebert

elfie.siebert@example.com

oA

0630-1857878

> appLogs


```
< {irineu.darocha@example.com: 15, anyt.hsny@example.com: 20, el
  ▼ fie.siebert@example.com: 30, hudson.li@example.com: 40, indie.h
    all@example.com: 50, ...} ⓘ
  anyt.hsny@example.com: 20
  austrelino.lima@example.com: 60
  elfie.siebert@example.com: 30
  hudson.li@example.com: 40
  indie.hall@example.com: 50
  irineu.darocha@example.com: 15
  justin.grewal@example.com: 100
  lexi.keijer@example.com: 80
  max.wang@example.com: 90
  ruby.flores@example.com: 70
  ▶ __proto__: Object
```



Detaching Angular Change Detector

Users

elfie



Elfie Siegart

elfie.siegert@example.com

t

0630-1857878

Elements

Console

Sources

30

Filter

Custom levels

> appLogs

< {irineu.darocha@example.com: 33, anyt.hsyny@example.com: 44, elfie.siegert@example.com: 72, hudson.li@example.com: 88, indie.hall@example.com: 110, ...}

anyt.hsyny@example.com: 44

austrelino.lima@example.com: 132

elfie.siegert@example.com: 72

hudson.li@example.com: 88

indie.hall@example.com: 110

irineu.darocha@example.com: 33

justin.grewal@example.com: 220

lexi.keijer@example.com: 176

max.wang@example.com: 198


ruby.flores@example.com: 154

__proto__: Object

Detaching Angular Change Detector

Users

elfie



Elfie Siegart

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6

0630-1857878

Elements

Console

Sources

30

Filter

Custom levels

> appLogs

< {irineu.darocha@example.com: 2, anyt.hsyny@example.com: 4, elfie.siegert@example.com: 8, hudson.li@example.com: 8, indie.hall@example.com: 10, ...}

anyt.hsyny@example.com: 4

austrelino.lima@example.com: 12

elfie.siegert@example.com: 8

hudson.li@example.com: 8

indie.hall@example.com: 10

irineu.darocha@example.com: 2

justin.grewal@example.com: 20

lexi.keijer@example.com: 16

max.wang@example.com: 18

ruby.flores@example.com: 14

__proto__: Object



Running async events outside Angular with runOutsideAngular

Watch

22:48:53:471

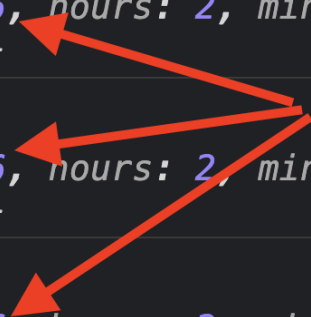
Greetings Ahsan Ayaz

Ahsan Ayaz

```
> appLogs
< {watch: 1648, hours: 2, minutes: 2, seconds: 5, milliseconds: 720} ⓘ
  hours: 2
  milliseconds: 943
  minutes: 2
  seconds: 6
  watch: 2154
  ► __proto__: Object
```



```
> appLogs
< ▶ {watch: 2756, hours: 2, minutes: 2, seconds: 6, millis
    econds: 916}
> appLogs
< ▶ {watch: 2806, hours: 2, minutes: 2, seconds: 6, millis
    econds: 916}
> appLogs
< ▶ {watch: 2856, hours: 2, minutes: 2, seconds: 6, millis
    econds: 916}
```



```
> appLogs
< ▶ {watch: 2036, hours: 2, minutes: 2, seconds: 6, millis
    econds: 892}
> appLogs
< ▶ {watch: 2036, hours: 2, minutes: 2, seconds: 6, millis
    econds: 892}
> appLogs
< ▶ {watch: 2036, hours: 2, minutes: 2, seconds: 6, millis
    econds: 892}
```

```
> appLogs
< ▼ {watch: 4, hours: 1, minutes: 1, seconds: 1, milliseco
    nds: 1} ⓘ
    hours: 1
    milliseconds: 1
    minutes: 1
    seconds: 1
    watch: 4
    ▶ __proto__: Object
```

```
> appLogs
< {watch: 1432, hours: 2, minutes: 2, seconds: 5, millis
  econds: 715} ⓘ
  hours: 2
  milliseconds: 1036
  minutes: 2
  seconds: 6
  watch: 2074
  ▶ __proto__: Object

> appLogs
< {watch: 6222, hours: 2, minutes: 2, seconds: 15, milli
  seconds: 3109} ⓘ
  hours: 2
  milliseconds: 3307
  minutes: 2
  seconds: 15
  watch: 6618
  ▶ __proto__: Object
```

```
> appLogs
< ▾ {watch: 1264, hours: 2, minutes: 2, seconds: 8, millis
  econds: 1263} ⓘ
  hours: 2
  milliseconds: 1476
  minutes: 2
  seconds: 9
  watch: 1477
  ▶ __proto__: Object
```

```
> appLogs
< ▾ {watch: 2077, hours: 2, minutes: 2, seconds: 11, milli
  seconds: 2076} ⓘ
  hours: 2
  milliseconds: 2297
  minutes: 2
  seconds: 12
  watch: 2298
  ▶ __proto__: Object
```



Using *ngFor trackBy function

Our trusted customers

Miss Marty Mayer

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Clemmie62@hotmail.com



Miss Kathryn Streich

484.508.5522 x30874



Mellie_Medhurst@gmail.com



Brandon Mitchell

1-970-796-9073 x719



Kelton_Pfeffer23@hotmail.com



Meredith Boyer

1-827-569-5184 x153



Nigel_Schuppe@yahoo.com



```
A Clear console Ctrl L ⌘ K elopment mode. core.js:27910
enable production mode.

[WDS] Live Reloading enabled. client:52

1000 ListItemComponent list-item.component.ts:16
initiated

Deleting user app.component.ts:39
{name: "Miss Marty Mayer", email: "Clemmie62@hotmail.c
om", address: {...}, phone: "265-643-9755 x3881", pictur
e: "/assets/landscape.jpg?654.6301159461362"}

999 ListItemComponent initiated list-item.component.ts:16
>
```

```
⏮ ⏭ top ▼ 👁 Filter Cus 4 hidden ⚙

Angular is running in development mode. core.js:27910
Call enableProdMode() to enable production mode.

[WDS] Live Reloading enabled. client:52


1000 ListItemComponent list-item.component.ts:16
initiated

Updating user app.component.ts:32
{name: "Miss Marty Mayer", email: "Clemmie62@hotmail.c
om", address: {...}, phone: "265-643-9755 x3881", pictur
e: "/assets/landscape.jpg?654.6301159461362"}

1000 ListItemComponent list-item.component.ts:16
initiated
```

Using *ngFor trackBy function

Our trusted customers




Miss Marty Mayer **UPDATED**

265-643-9755 x3881

Clemmie62@hotmail.com

✕




Miss Kathryn Streich

484.508.5522 x30874

Mellie_Medhurst@gmail.com

✕




Brandon Mitchell

1-970-796-9073 x719

Kelton_Pfeffer23@hotmail.com

✕



Meredith Boyer

1-827-569-5184 x153

Nigel_Schuppe@yahoo.com

✕

ElementsConsoleSources>>⚙⋮✕

▶⏏top⌵👁FilterCus3 hidden⚙

Angular is running in development mode. [core.js:27910](#)
Call enableProdMode() to enable production mode.

[WDS] Live Reloading enabled. [client:52](#)

1000 ListItemComponent [list-item.component.ts:16](#)
initiated

Updating user [app.component.ts:32](#)
{name: "Miss Marty Mayer", email: "Clemmie62@hotmail.com", address: {...}, phone: "265-643-9755 x3881", picture: "/assets/landscape.jpg?654.6301159461362"}

>



Users



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j

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Elfie Siebert

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Users

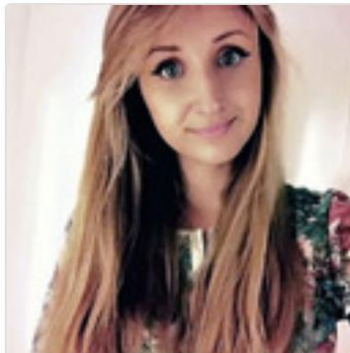


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UIBFFx

0630-1857878

```

[
  {
    "type": "log",
    "text": "Some messages have been moved to the Issues panel.",
    "source": "core.js:27910",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "Angular is running in development mode. Call enableProdMode() to enable production mode.",
    "source": "core.js:27910",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "[WDS] Live Reloading enabled.",
    "source": "client:52",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 0, email: \"irineu.darocha@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 1, email: \"anyt.hsny@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker RKTgW2vHbQSNZv7LFS0e8LLqeFxmMwu124un5Ik6QWJ2pN7H2 irineu.darocha@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker 06Plqu29TCm7C0lG4HTzF1TWwg9gkQob4jYgK70ifGyucfu6XL anyt.hsny@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 2, email: \"elfie.siebert@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 3, email: \"hudson.li@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker Eu9p2Zy2bLi3wKaH1ssbQk6mi7w7AD4qLv9v0YQRxKJU9nc4GB elfie.siebert@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 4, email: \"indie.hall@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker JKHxtERW46Fef3RgBUXIzU6ETHj5BI5t5bR1JEtujIASLIqtKwD hudson.li@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 5, email: \"austrelino.lima@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker 38VXHIsd0MAKBMSAdZyhQ8HusprFSTAc00mvj0TJxx3gMNoB1D indie.hall@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 6, email: \"ruby.flores@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker itMtEpUbxWvUwBPVnx2zQ5CfXhiuUnaNyflRnH5NheJ58pefPz austrelino.lima@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 7, email: \"lexi.keijer@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker aLoH6xwKvX5Nju04lXJoSL9r5nd3jJC703sP5TxdBA5TRYQ60 ruby.flores@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 8, email: \"max.wang@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker FrPRFpFrR3UwhUE3mRyLy1anuRLWrixArjIBLtEJA5bmFCqzI lexi.keijer@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "message received IN worker > {index: 9, email: \"justin.grewal@example.com\"}",
    "source": "id-generator.worker.ts:6",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker DRhW9GtPQixLmp0lfd44nVIjQsq723Lzg6DbLnJiDukXjkX1Zi max.wang@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  },
  {
    "type": "log",
    "text": "received message from worker 0Z4KckYLUTEuffX4eU5MqGda0aMzPDKh5rvJUh1S302bhxJc justin.grewal@example.com",
    "source": "user.service.ts:22",
    "timestamp": 1611111111.111,
    "category": "Log"
  }
]
```



```
ahsanayaz@Muhammads-MBP angular-performance-budgets % ng build --prod
✓ Browser application bundle generation complete.
✓ Copying assets complete.
✓ Index html generation complete.
```

Initial Chunk Files	Names	Size
main.636953a84ba78df03f95.js	main	268.05 kB
polyfills.66cbf868de57007a248c.js	polyfills	36.00 kB
runtime.583904e63cb9a5659203.js	runtime	2.31 kB
styles.09e2c710755c8867a460.css	styles	0 bytes
	Initial Total	306.35 kB

Lazy Chunk Files	Names	Size
common.18fe967b5b48a6d9b344.js	common	4.56 kB
6.fa8f5359cd76c4c3c3bb.js	-	1.75 kB
7.009a8adad262cdc923ae.js	-	912 bytes
5.a449fd050ca9289dd993.js	-	911 bytes

Build at: 2021-04-12T18:49:47.548Z - Hash: d793cb44c27a566afe6e - Time: 17485ms

```
ahsanayaz@Muhammads-MBP angular-performance-budgets % ng build --prod
✓ Browser application bundle generation complete.
✓ Copying assets complete.
✓ Index html generation complete.
```

Initial Chunk Files	Names	Size
main.e48427605c12dd80b439.js	main	1.12 MB
polyfills.66cbf868de57007a248c.js	polyfills	36.00 kB
runtime.583904e63cb9a5659203.js	runtime	2.31 kB
styles.09e2c710755c8867a460.css	styles	0 bytes
	Initial Total	1.16 MB

Lazy Chunk Files	Names	Size
common.18fe967b5b48a6d9b344.js	common	4.56 kB
6.fa8f5359cd76c4c3c3bb.js	-	1.75 kB
7.009a8adad262cdc923ae.js	-	912 bytes
5.a449fd050ca9289dd993.js	-	911 bytes

Build at: 2021-04-12T18:57:53.537Z - Hash: 5ee9352e9b1e5d2f4664 - Time: 35269ms

```

ahsanayaz@Muhammads-MBP angular-performance-budgets % ng build --prod
✓ Browser application bundle generation complete.

Warning: budgets: initial exceeded maximum budget. Budget 800.00 kB was not met by 383.86 kB with a total of 1.16 MB.

Error: budgets: initial exceeded maximum budget. Budget 1.00 MB was not met by 159.86 kB with a total of 1.16 MB.

```

```

ahsanayaz@Muhammads-MBP angular-performance-budgets % ng build --prod
✓ Browser application bundle generation complete.
✓ Copying assets complete.
✓ Index html generation complete.

Initial Chunk Files | Names | Size
main.23532ad8305a49dcab35.js | main | 793.42 kB
polyfills.66cbf868de57007a248c.js | polyfills | 36.00 kB
runtime.583904e63cb9a5659203.js | runtime | 2.31 kB
styles.09e2c710755c8867a460.css | styles | 0 bytes

| Initial Total | 831.73 kB

Lazy Chunk Files | Names | Size
common.18fe967b5b48a6d9b344.js | common | 4.56 kB
6.fa8f5359cd76c4c3c3bb.js | - | 1.75 kB
7.009a8adad262cdc923ae.js | - | 912 bytes
5.a449fd050ca9289dd993.js | - | 911 bytes

Build at: 2021-04-12T19:23:54.731Z - Hash: 157348e679960d29b796 - Time: 27974ms

Warning: budgets: initial exceeded maximum budget. Budget 800.00 kB was not met by 31.73 kB with a total of 831.73 kB.

```

[Analyzing bundles with webpack-bundle-analyzer](#)

Employee Section
Admin Section

Login as Admin

Login as Employee

Console

2

top

2 hidden

Some messages have been moved to the Issues panel. [View issues](#)

Apr 13th 2021 app.component.ts:17

Angular is running in development mode. Call enableProdMode() to enable production mode. core.js:27667

[WDS] Live Reloading enabled. client:52

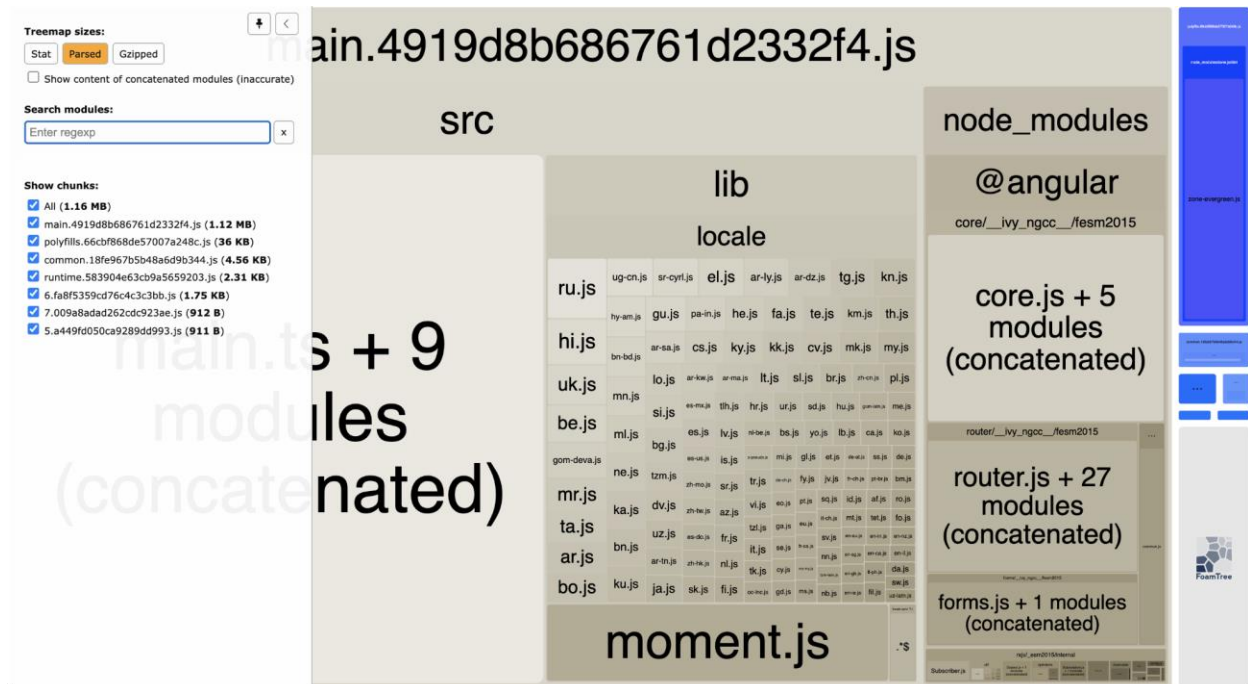
```
ahsanayaz@Muhammads-MBP using-webpack-bundle-analyzer % ng build --prod
✓ Browser application bundle generation complete.
✓ Copying assets complete.
✓ Index html generation complete.
```

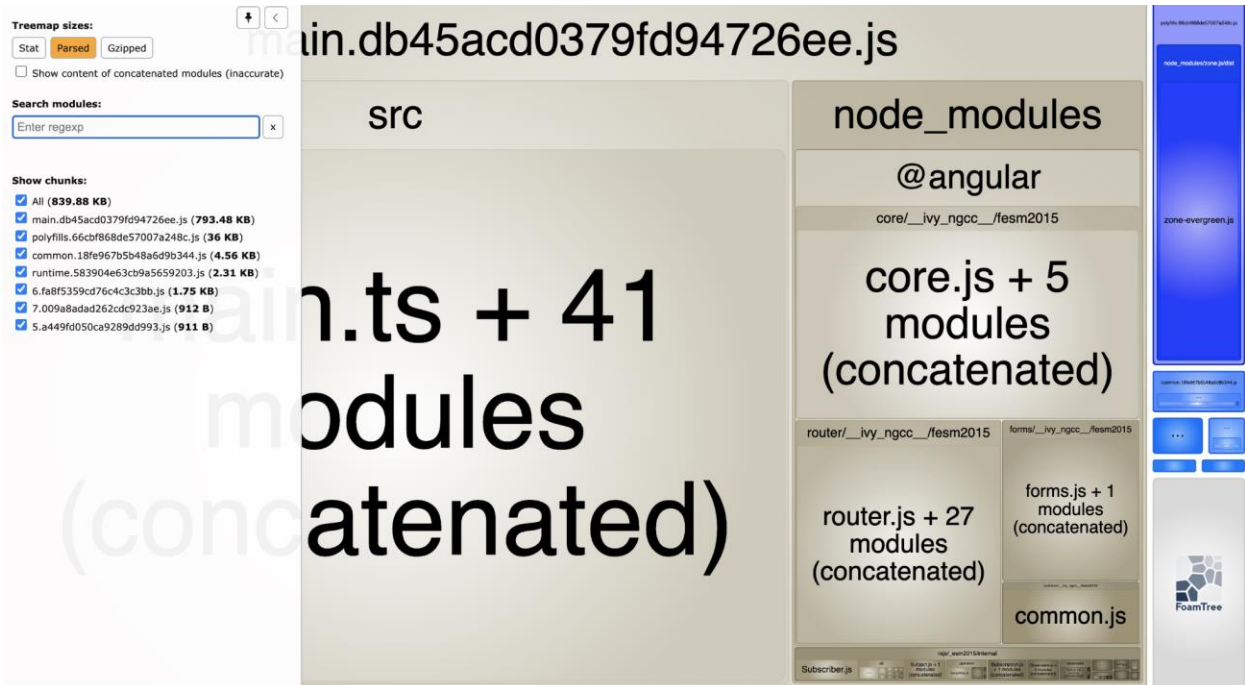
Initial Chunk Files	Names	Size
main.4919d8b686761d2332f4.js	main	1.12 MB
polyfills.66cbf868de57007a248c.js	polyfills	36.00 kB
runtime.583904e63cb9a5659203.js	runtime	2.31 kB
styles.09e2c710755c8867a460.css	styles	0 bytes

Initial Total	1.16 MB
---------------	---------

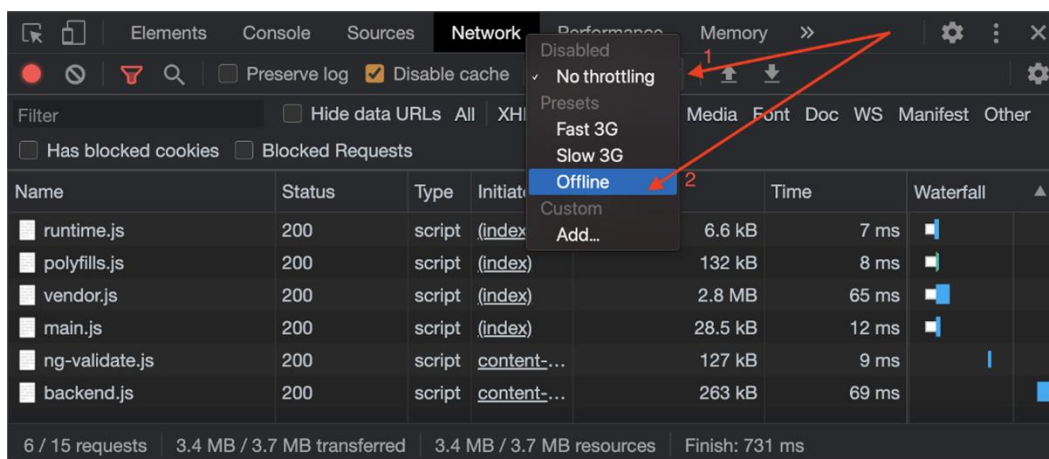
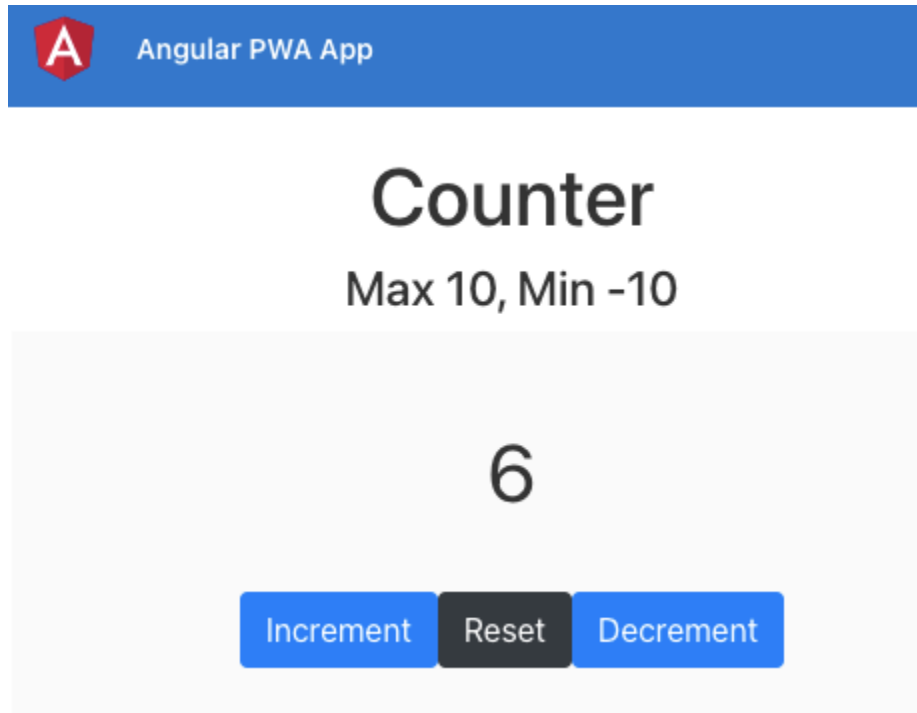
Lazy Chunk Files	Names	Size
common.18fe967b5b48a6d9b344.js	common	4.56 kB
6.fa8f5359cd76c4c3c3bb.js	-	1.75 kB
7.009a8adad262cdc923ae.js	-	912 bytes
5.a449fd050ca9289dd993.js	-	911 bytes

Build at: 2021-04-13T01:40:03.255Z - Hash: 8394a47c42221f2fd6ac - Time: 17011ms






Chapter 13: Creating PWAs with Angular



← → 📄 localhost:4200 ☆ ⚙️ 🔍 Update



This site can't be reached

localhost refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

ERR_CONNECTION_REFUSED

[Details](#) [Reload](#)

🔍 📄 Elements Console Sources **Network** Performance Memory >> ⚙️ ⋮ ✕

🔴 🚫 🔍 ☐ Preserve log ☒ Disable cache No throttling ⌵ ⬆️ ⬇️ ⚙️

Filter ☐ Hide data URLs **All** XHR JS CSS Img Media Font Doc WS Manifest Other

☐ Has blocked cookies ☐ Blocked Requests

Name	Status	Type	Initiator	Size	Time	Waterfall
localhost	(failed)	do...	Other	0 B	10 ms	
data:image/png;base...	200	png	chrome...	(memory cache)	0 ms	
data:image/png;base...	200	png	chrome...	(memory cache)	0 ms	
data:image/png;base...	200	png	chrome...	(memory cache)	0 ms	
localhost	(failed)	do...	Other	0 B	9 ms	
localhost	(failed)	do...	Other	0 B	10 ms	
localhost	(failed)	do...	Other	0 B	8 ms	

7 requests 0 B transferred 5.6 kB resources

🔍 📄 Elements Console Sources **Network** Performance Memory >> ⚠️ 1 ⚙️ ⋮ ✕

🔴 🚫 🔍 ☐ Preserve log ☐ Disable cache **No throttling** ⌵ ⬆️ ⬇️ ⚙️

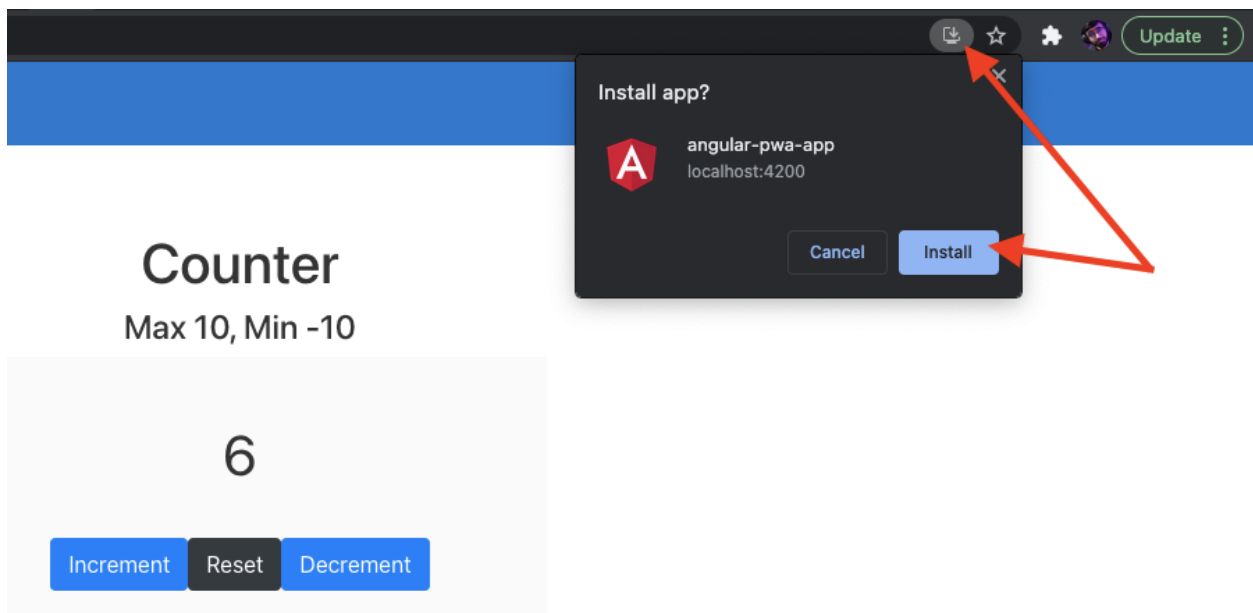
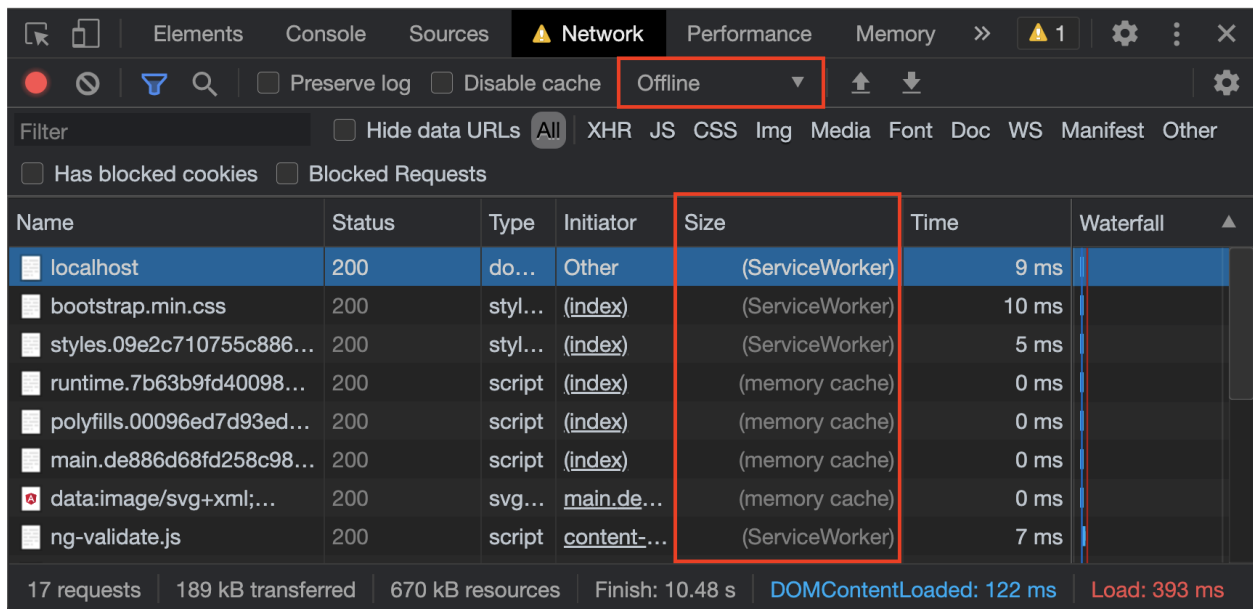
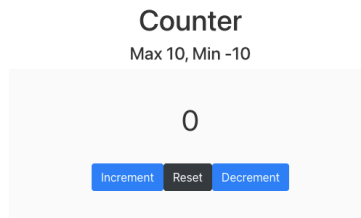
Filter: Clear ☐ Hide data URLs **All** XHR JS CSS Img Media Font Doc WS Manifest Other

☐ Has blocked cookies ☐ Blocked Requests

Recording network activity...

Perform a request or hit ⌘ R to record the reload.

[Learn more](#)





Angular PWA App

Counter

Max 10, Min -10

6

Increment
















Reset

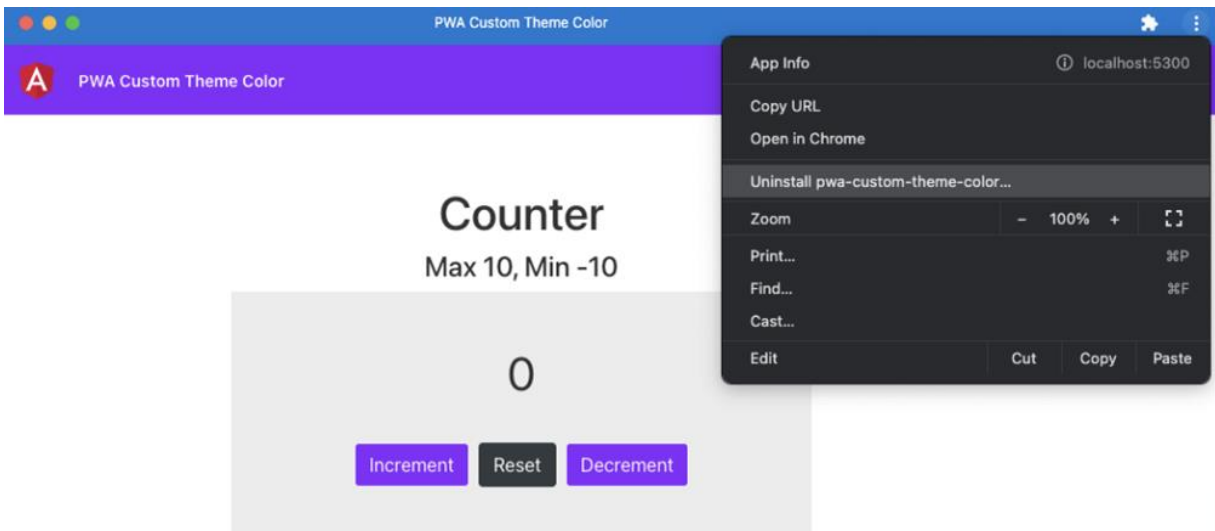
Decrement

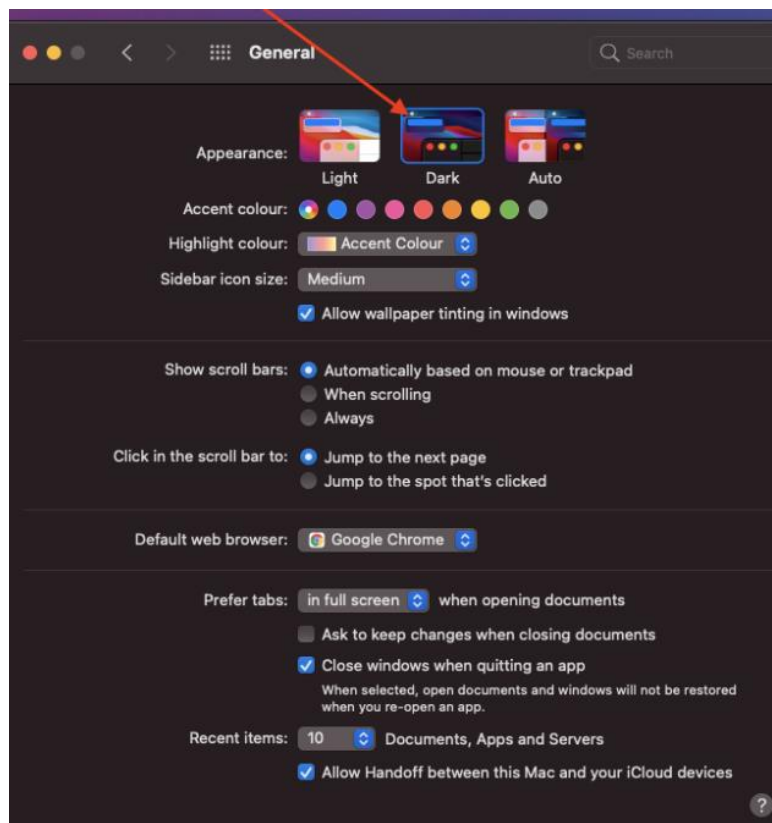
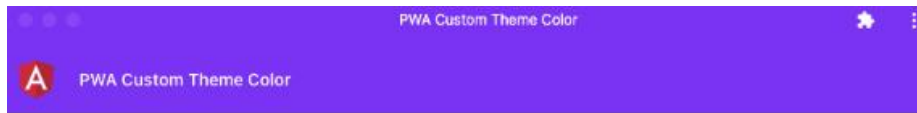
Message (⌘Enter to commit on 'master')

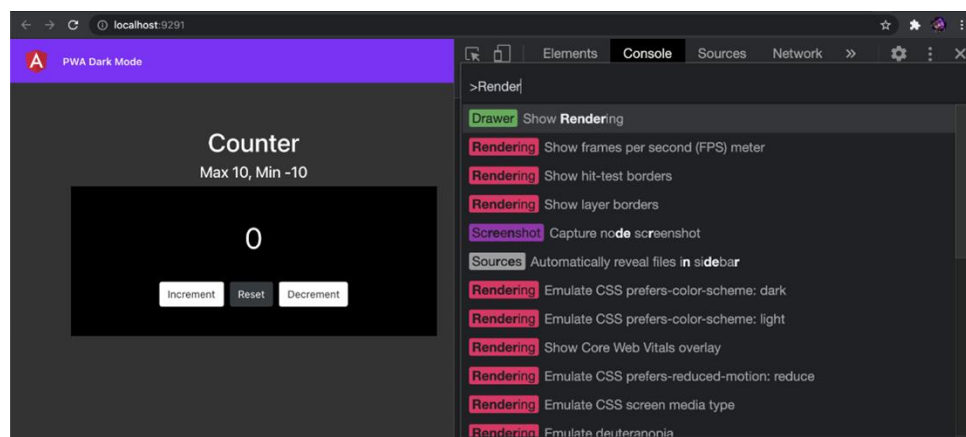
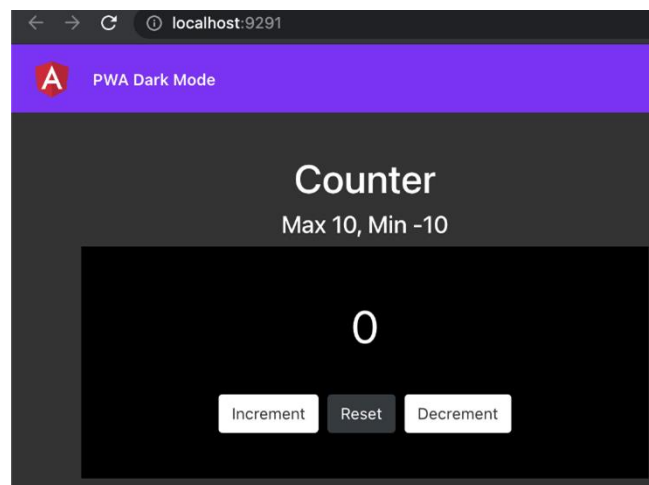
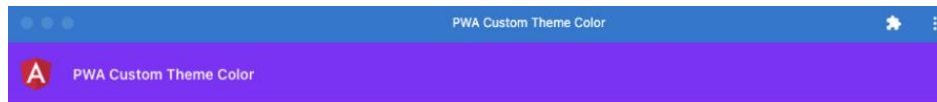
✓ Changes

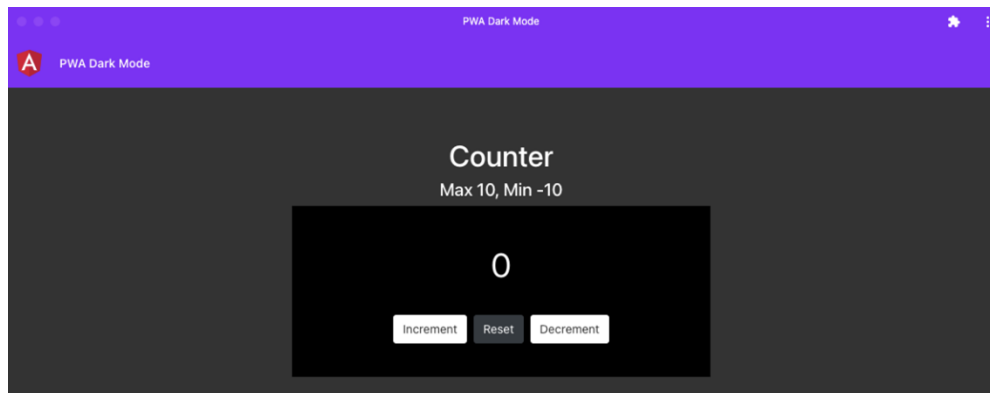
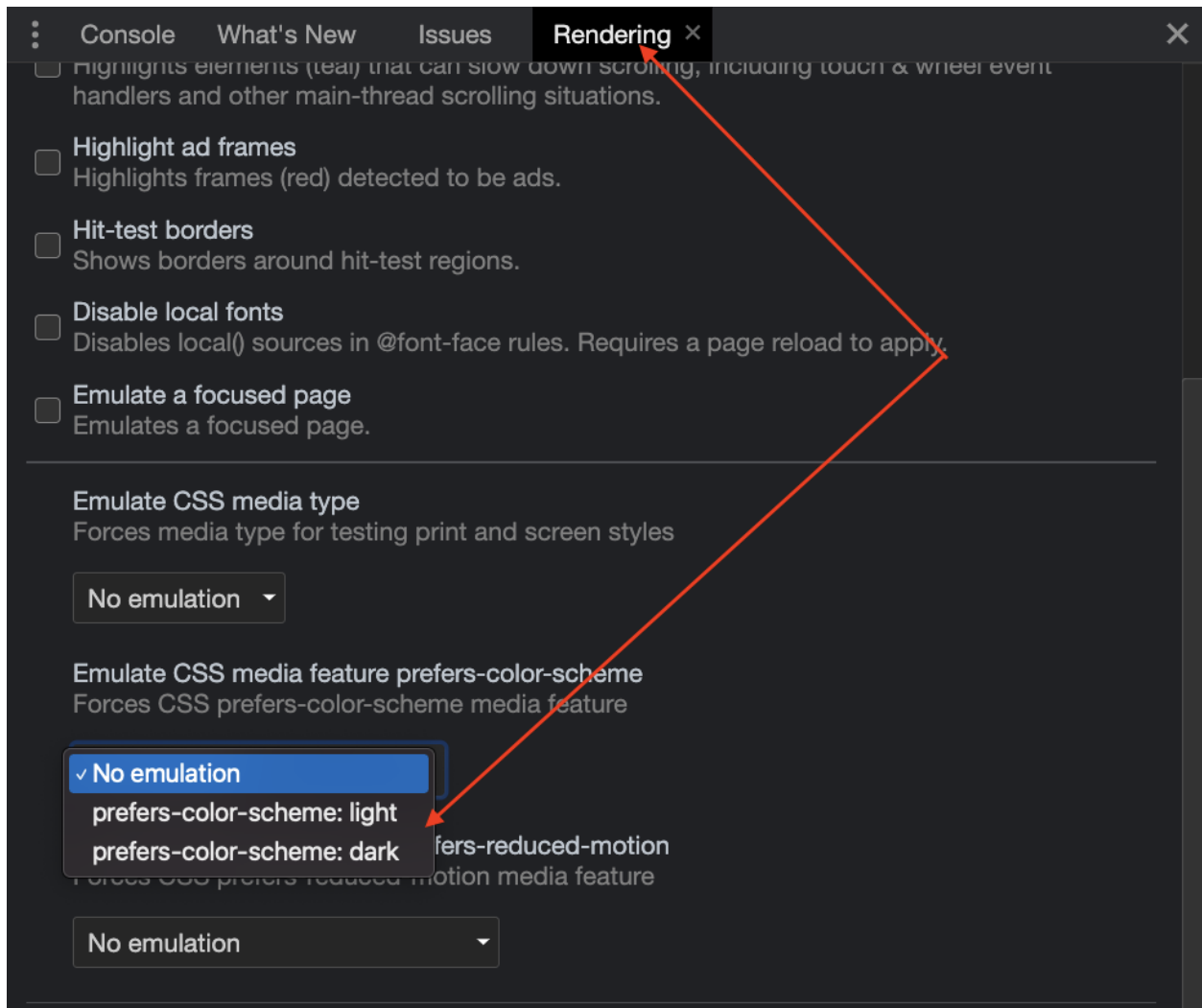
15

	angular.json	ch14/final/angular-pwa-app	M
	ngsw-config.json	ch14/final/angular-pwa-app	U
	package-lock.json	ch14/final/angular-pwa-app	M
	package.json	ch14/final/angular-pwa-app	M
	index.html	ch14/final/angular-pwa-app/src	M
	manifest.webmanifest	ch14/final/angular-pwa-app/src	U
	app.module.ts	ch14/final/angular-pwa-app/src/app	M
	icon-72x72.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-96x96.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-128x128.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-144x144.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-152x152.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-192x192.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-384x384.png	ch14/final/angular-pwa-app/src/assets/icons	U
	icon-512x512.png	ch14/final/angular-pwa-app/src/assets/icons	U











Custom PWA Installable Prompt



Enter your name

Player Name

Enter your name



Application

Manifest

Service Workers

Storage

Storage

- Local Storage
- Session Storage
- IndexedDB
- Web SQL
- Cookies

Cache

- Cache Storage
- Application Cache

Background Services

- Background Fetch
- Background Sync
- Notifications
- Payment Handler
- Periodic Background
- Push Messaging

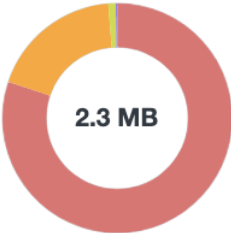
Storage

http://localhost:7200

Usage

2.3 MB used out of 299978 MB storage quota

[Learn more](#)



1.9 MB	Cache Storage
433 kB	Service Workers
24.6 kB	Web SQL
4.8 kB	IndexedDB
2.3 MB	Total

☐ Simulate custom storage quota

Clear site data

☐ including third-party cookies

Application

- ☒ Unregister service workers

Storage

? Guess what the value will be when the die is rolled

1

2

3

4

5

6



You rock Ahsan! You got 50 points



Add to Home

Enjoying the game? Would you like to install the app on your device?

No Thanks

Sure

Precaching network requests

Users

Search user

Elements

Console

Sources

Network

Performance

Memory

>>

2

1

1

results

Hide data URLs

All

XHR

JS

CSS

Img

Media

Font

Doc

WS

Manifest

Other

Has blocked cookies

Blocked Requests

Name	Status	Type	Initiator	Size	Time	Waterfall
?results=10&seed=packt	504	xhr	polyfills.00...	(ServiceWorker)	11 ms	
?results=10&seed=packt	(failed)	fetch	ngsw-wor...	0 B	10 ms	

Precaching network requests

Users

Search user

Elements

Console

Sources

Network

Performance

Memory

>>

1

1

results

Hide data URLs

All

XHR

JS

CSS

Img

Media

Font

Doc




WS

Manifest

Other

Has blocked cookies

Blocked Requests



Name	Status	Type	Initiator	Size	Time	Waterfall
?results=10&seed=packt	200	xhr	polyfills.00...	(ServiceWorker)	16 ms	
?results=10&seed=packt	(failed)	fetch	ngsw-wor...	0 B	3 ms	

Users



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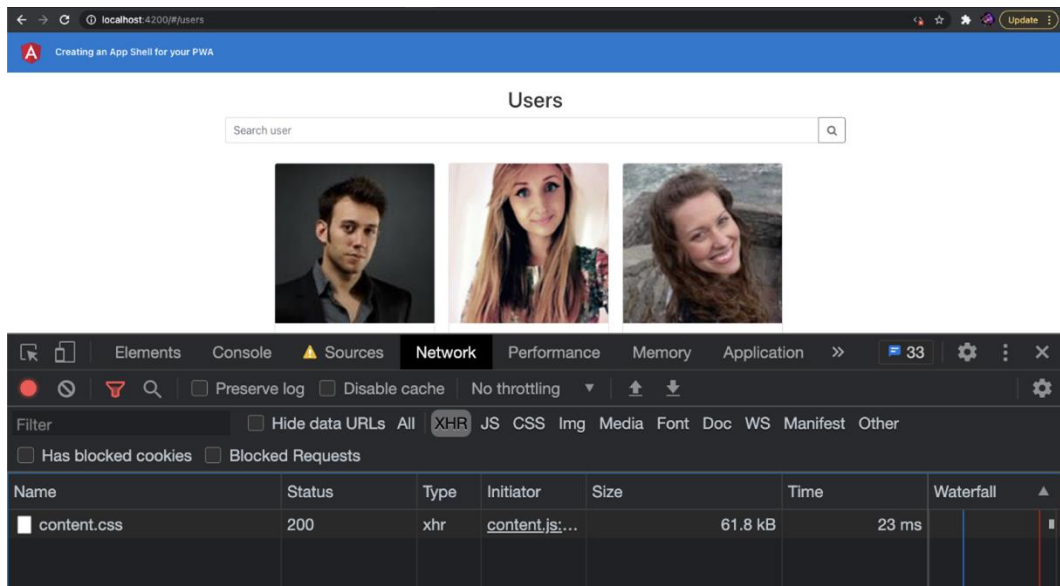
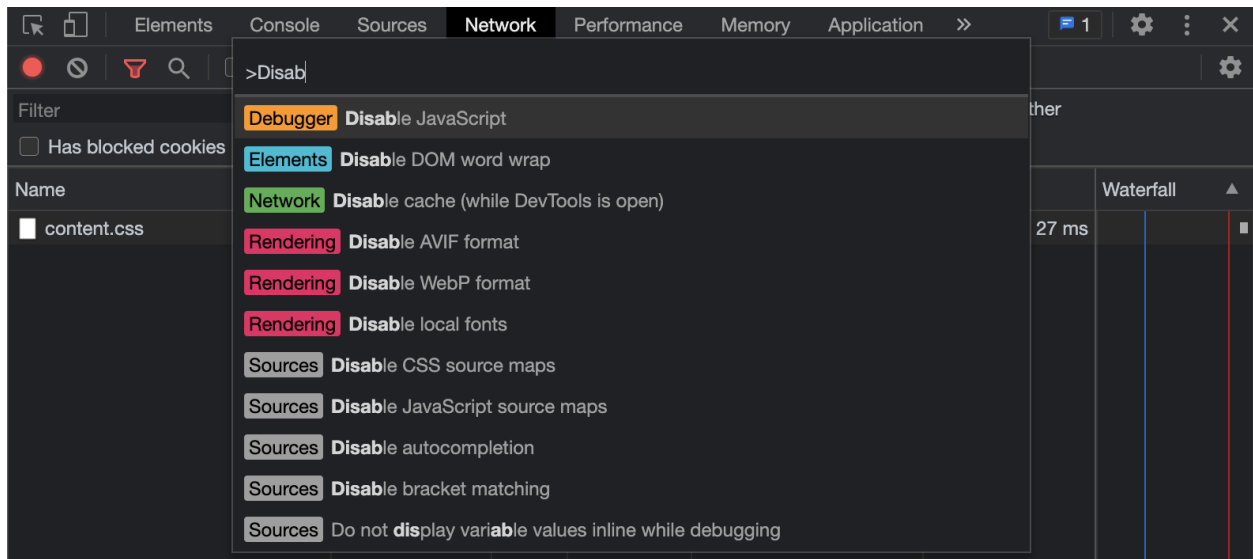
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