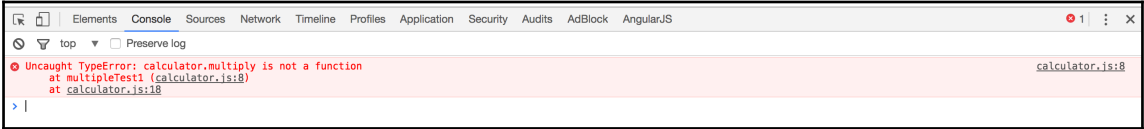
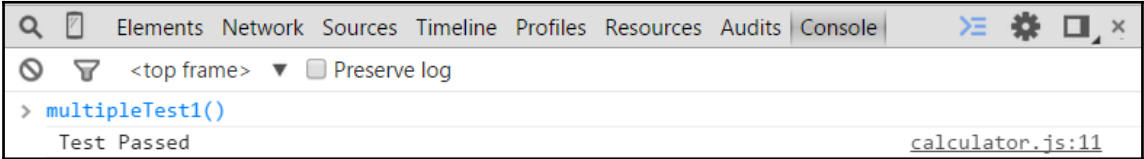


Chapter 1: Introduction to Test-Driven Development

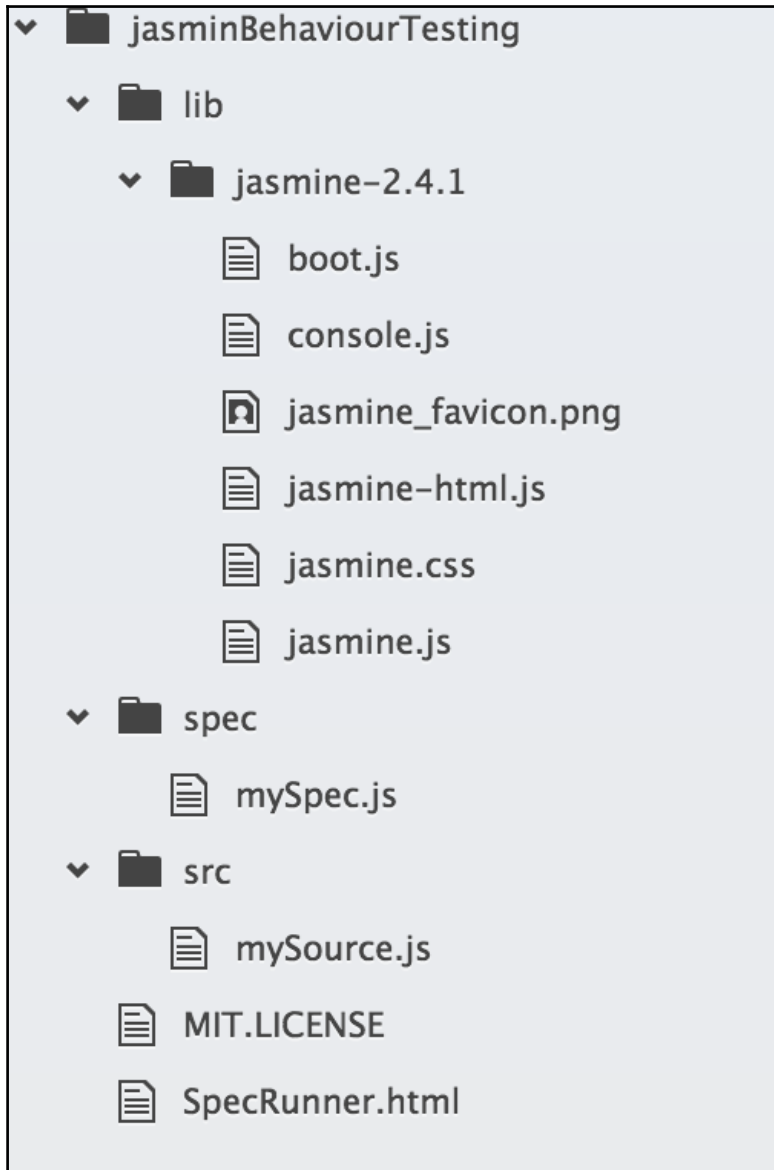


A screenshot of a browser's developer console. The top bar shows various tabs: Elements, Console, Sources, Network, Timeline, Profiles, Application, Security, Audits, AdBlock, and AngularJS. The Console tab is active, showing a red error message: "Uncaught TypeError: calculator.multiply is not a function" at "multipleTest1 (calculator.js:8)" and "at calculator.js:18". The file name "calculator.js:8" is also visible on the right side of the error message. Below the error, there is a prompt "> |".



A screenshot of a browser's developer console. The top bar shows tabs: Elements, Network, Sources, Timeline, Profiles, Resources, Audits, and Console. The Console tab is active, showing a blue prompt "> multipleTest1()". Below the prompt, the text "Test Passed" is displayed. On the right side, the file name "calculator.js:11" is visible.

Chapter 2: Details of JavaScript Testing




 Jasmine 2.4.1




3 specs, 0 failures


```
A sample test suite to test jasmine assertion
  tracks that the spy was called
  should not affect other functions
  when called returns the requested value
```


▼  angular2-unit-testing


▶  app


▶  node_modules


▼  src


 my.spec.ts


 tsconfig.json

 unit-tests.html

▶  typings

 jsconfig.json

 package.json

 typings.json

2 specs, 0 failures

finished in 0.002s

1st tests:

true is true

null is not the same thing as undefined

Chapter 3: The Karma Way

```
$ karma init
which testing framework do you want to use ?
Press tab to list possible options. Enter to move to the next question.
> jasmine

Do you want to use Require.js ?
This will add Require.js plugin.
Press tab to list possible options. Enter to move to the next question.
> no

Do you want to capture a browser automatically ?
Press tab to list possible options. Enter empty string to move to the next question.
> Chrome
>

what is the location of your source and test files ?
You can use glob patterns, eg. "js/*.js" or "test/**/*.Spec.js".
Enter empty string to move to the next question.
>

Should any of the files included by the previous patterns be excluded ?
You can use glob patterns, eg. "**/*.swp".
Enter empty string to move to the next question.
>

Do you want Karma to watch all the files and run the tests on change ?
Press tab to list possible options.
> yes
```

Karma v0.13.22 - connected

Chrome 49.0.2623 (Mac OS X 10.10.5) is idle



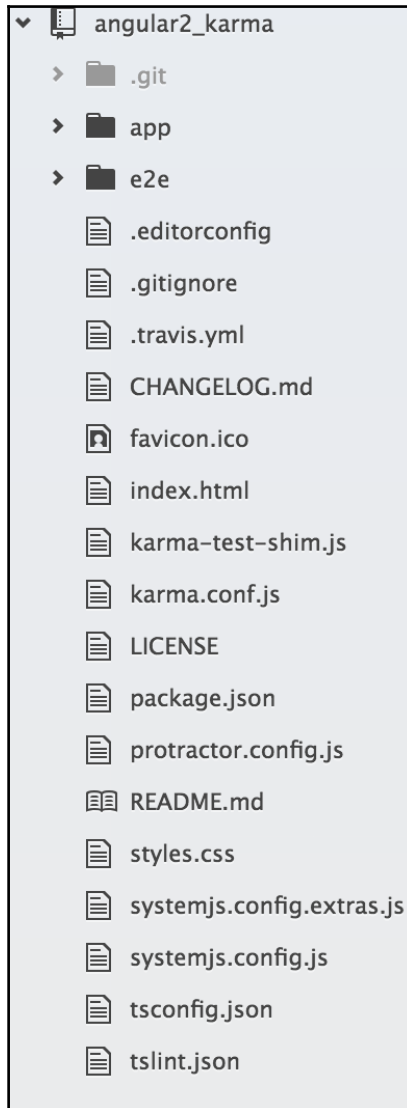


```
> karma start karma.conf.js
```

```
module.js:328  
  throw err;  
  ^
```

```
Error: Cannot find module 'jasmine-core'  
  at Function.Module._resolveFilename (module.js:326:15)  
  at Function.require.resolve (internal/module.js:16:19)
```


Chapter 4: End-to-End Testing with Protractor



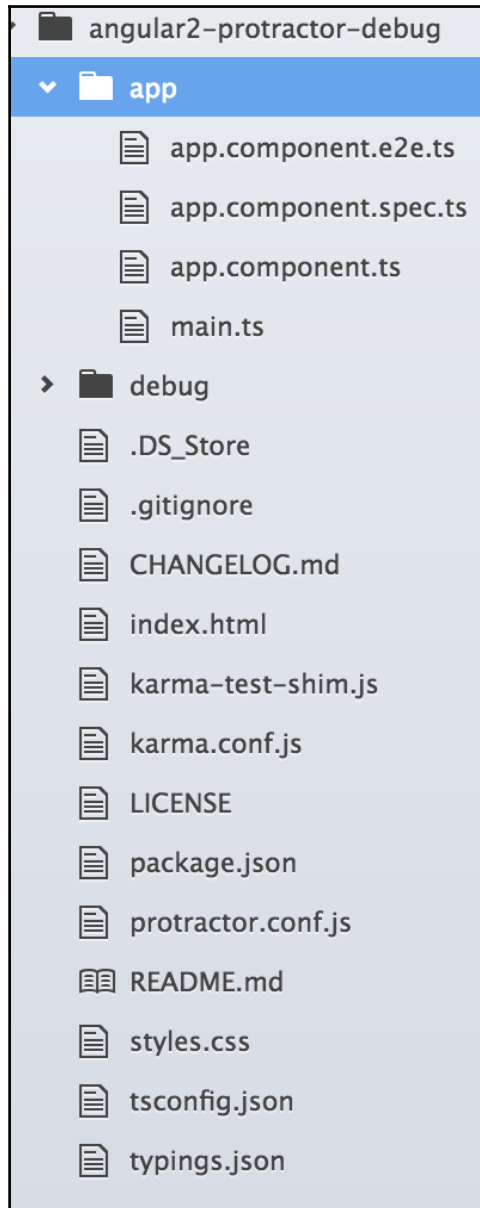


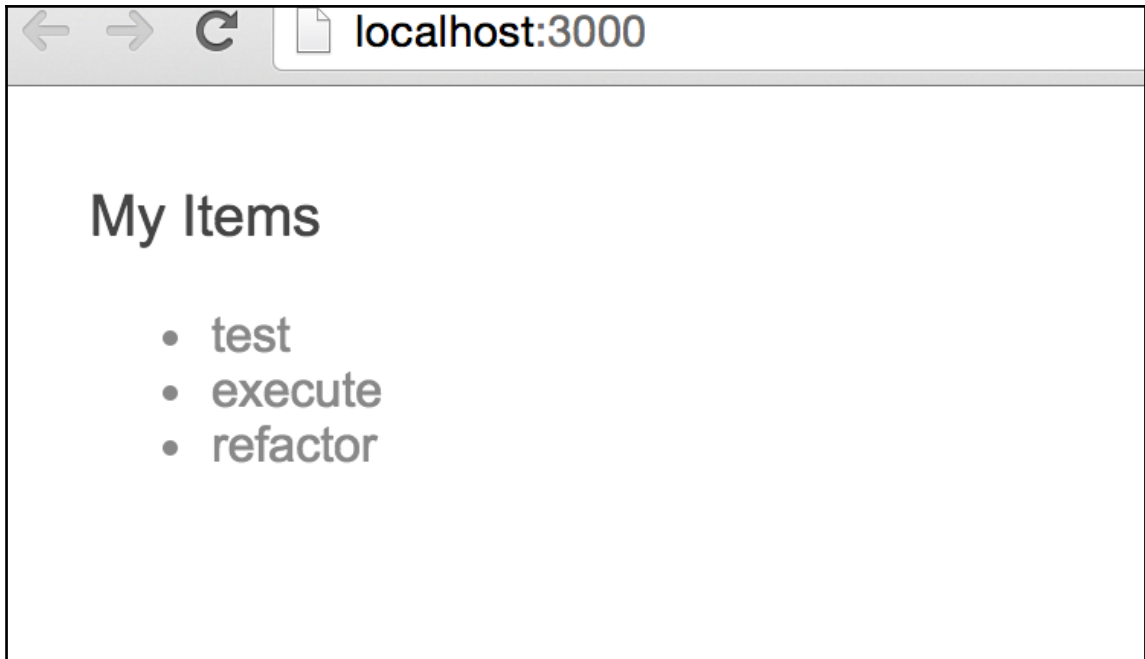
localhost:3000

My Items

- test
- execute
- refactor

Chapter 5: Protractor, a Step Ahead





```
Mds-MacBook-Pro-2:angular2-protractor jquerygeek$ npm run e2e
> angular2-protractor@1.0.0 e2e /Users/jquerygeek/Documents/angular 2
> protractor

Using ChromeDriver directly...
[launcher] Running 1 instances of WebDriver
Started
.....

4 specs, 0 failures
Finished in 3.593 seconds
[launcher] 0 instance(s) of WebDriver still running
[launcher] chrome #01 passed
```

```
[07:19:47] I/protractor - Encountered browser.pause(). Attaching debugger...
Starting debugger agent.
Debugger listening on [::]:5858
ControlFlow::520
| TaskQueue::185
| | (pending) Task::187<then>
| | | TaskQueue::462
| | | | (pending) Task::464<Run it("Test spec for debug and play") in control flow>
| | | | | TaskQueue::467
| | | | | (blocked) Task::473<<anonymous>>
| | | | | Task::477<then>
| | | | | Task::479<then>
| | | | | Task::481<then>
| | | | | Task::483<then>
| | | | | Task::485<catch>
| | | | | Task::487<Protractor.waitForAngular() - Locator: By(css selector, *[id="my_id"])>
| | | | | Task: Protractor.waitForAngular() - Locator: By(css selector, *[id="my_id"])
```

```
-- Next command: executeAsyncScript
ControlFlow::520
| TaskQueue::185
| | (pending) Task::187<then>
| | | TaskQueue::462
| | | | (pending) Task::464<Run it("Test spec for debug and play") in control flow>
| | | | | TaskQueue::467
| | | | | (pending) Task::487<Protractor.waitForAngular() - Locator: By(css selector, *[id="my_id"])>
| | | | | | TaskQueue::599
| | | | | | (pending) Task::601<then>
| | | | | | | (active) TaskQueue::604
| | | | | | | Task::603<then>
| | | | | Task::489<then>
| | | | | Task::491<then>
| | | | | Task::493<then>
| | | | | Task::495<then>
| | | | | Task::497<then>
| | | | | Task::499<then>
| | | | | Task::502<then>
| | | | | Task::504<then>
| | | | Task::466<then>
```

```

ControlFlow::520
| TaskQueue::185
| | (pending) Task::187<then>
| | | TaskQueue::462
| | | | (pending) Task::464<Run it("Test spec for debug and play") + control flow>
| | | | | TaskQueue::467
| | | | | (pending) Task::493<then>
| | | | | | TaskQueue::669
| | | | | | | (pending) Task::678<WebDriver.findElement(By(css selector, *[id="my_id"]))>
| | | | | | | | TaskQueue::689
| | | | | | | | (pending) Task::691<then>
| | | | | | | | | (active) TaskQueue::694
| | | | | | | | | Task::693<then>
| | | | | | | | | Task::680<catch>
| | | | | | | | Task::495<then>
| | | | | | | | Task::497<then>
| | | | | | | | Task::499<then>
| | | | | | | | Task::502<then>
| | | | | | | | Task::504<then>
| | | | Task::466<then>

```

```

Failures:
1) AppComponent Tests Test spec for debug and play
  Message:
    Failed: No element found using locator: By(css selector, *[id="my_id"])
  Stack:
    NoSuchElementError: No element found using locator: By(css selector, *[id="my_id"])
    at WebDriverError (/usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/error.js:27:5)
    at NoSuchElementError (/usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/error.js:242:5)
    at /usr/local/lib/node_modules/protractor/built/element.js:719:27
    at ManagedPromise.invokeCallback_ (/usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/promise.js:1379:14)
    at TaskQueue.execute_ (/usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/promise.js:2913:14)
    at TaskQueue.executeNext_ (/usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/promise.js:2896:21)
    at asyncRun (/usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/promise.js:2775:27)
    at /usr/local/lib/node_modules/protractor/node_modules/selenium-webdriver/lib/promise.js:639:7
    at process._tickDomainCallback (internal/process/next_tick.js:129:7)Error

```

```

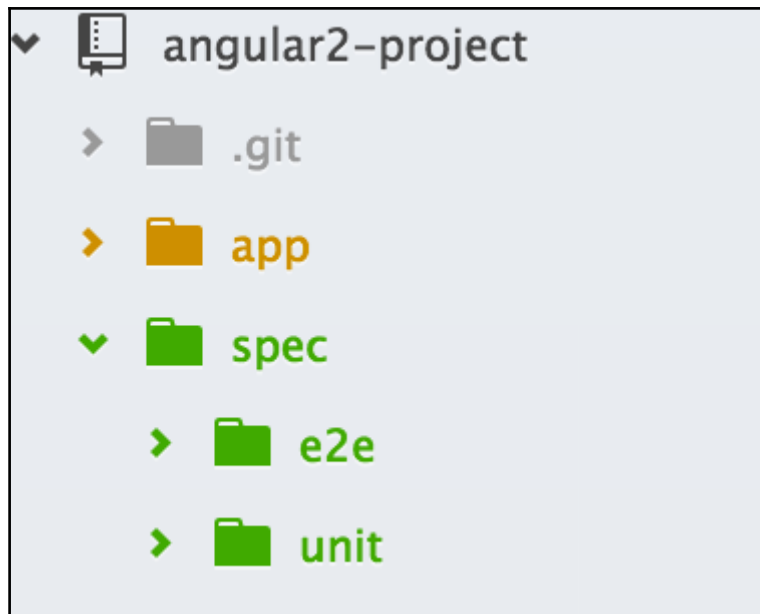
[08:50:42] I/direct - Using ChromeDriver directly...
[08:50:42] I/launcher - Running 1 instances of WebDriver
Starting debugger agent.
Debugger listening on [::]:5858
connecting to localhost:5858 ... ok
c
Started
break in /usr/local/lib/node_modules/protractor/built/browser.js:664
662     this.driver.executeScript(clientSideScripts.installInBrowser);
663     webdriver.promise.controlFlow().execute(function () {
>664         debugger;
665     }, 'add breakpoint to control flow');
666 });

```

Chapter 6: The First Step
























<input type="text"/>	<input type="button" value="Submit"/>
• Comment 1	<input type="button" value="Like"/> 0
• Comment 2	<input type="button" value="Like"/> 1
• Comment 3	<input type="button" value="Like"/> 2

- angular2_project
 - > .git
 - > app
 - > e2e
 - .editorconfig
 - .gitignore
 - .travis.yml
 - CHANGELOG.md
 - favicon.ico
 - index.html
 - karma-test-shim.js
 - karma.conf.js
 - LICENSE
 - package.json
 - protractor.config.js
 - README.md
 - styles.css
 - systemjs.config.extras.js
 - systemjs.config.js
 - tsconfig.json
 - tslint.json

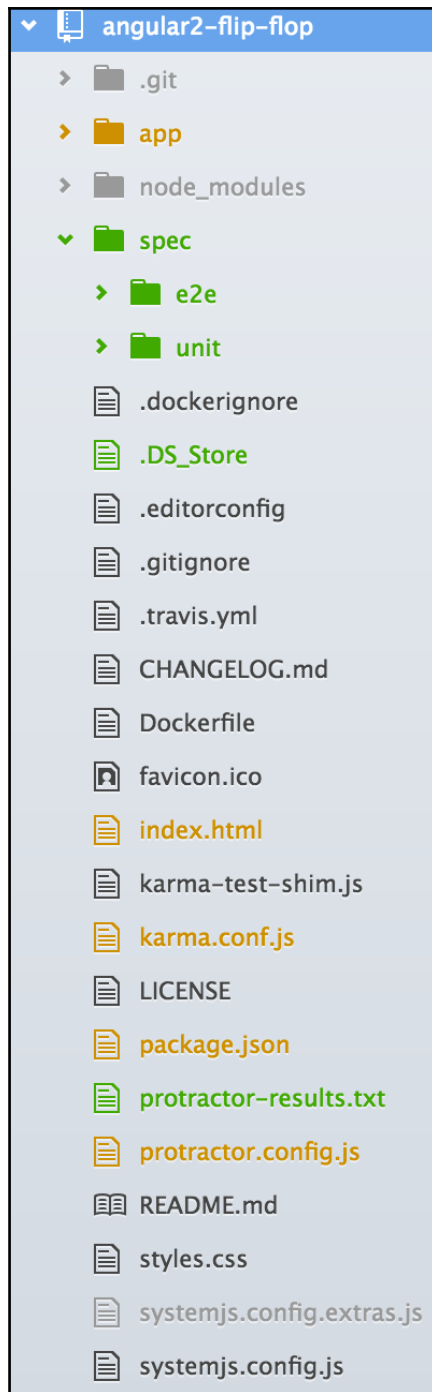


- Final Comment 4
- Second Comment 0
- First Comment 6

Chapter 7: Flip Flop

- >  .git
- >  app
- >  e2e
-  .dockerignore
-  .editorconfig
-  .gitignore
-  .travis.yml
-  CHANGELOG.md
-  Dockerfile
-  favicon.ico
-  index.html
-  karma-test-shim.js
-  karma.conf.js
-  LICENSE
-  package.json
-  protractor.config.js
-  README.md
-  styles.css
-  systemjs.config.extras.js
-  systemjs.config.js
-  tsconfig.json
-  tslint.json
-  wallaby.js

My First Angular App



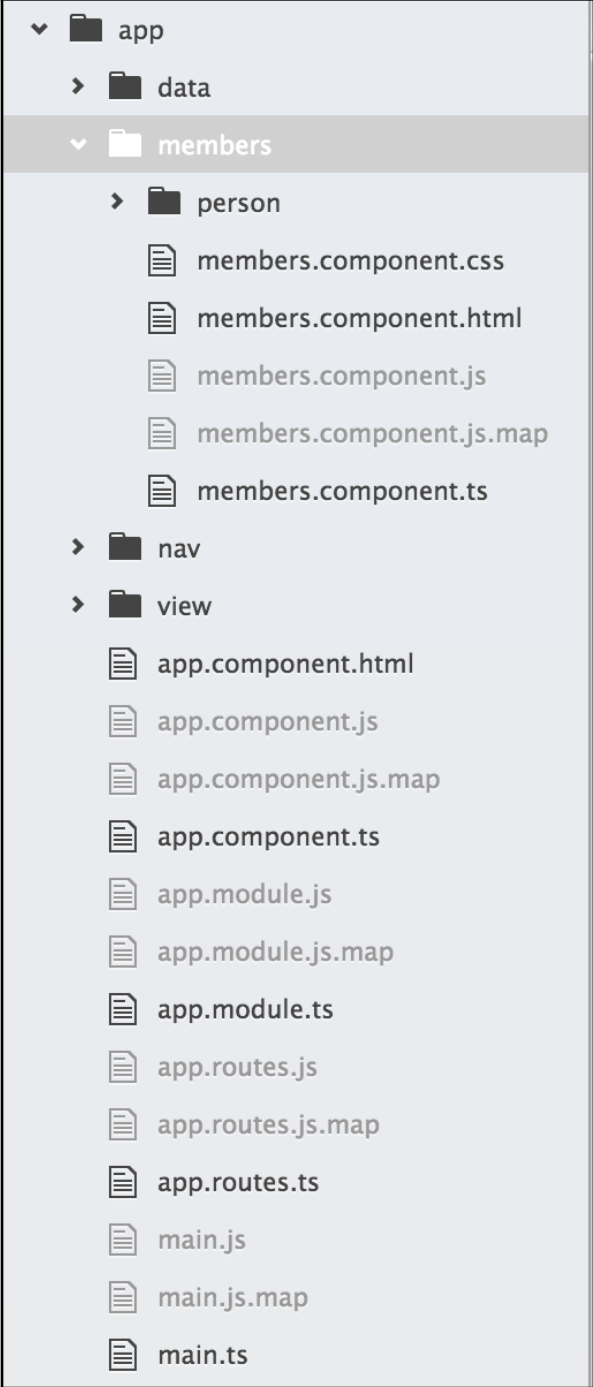
My First Angular 2 App

View1

View2


Members

I am view one component




▼  spec

▼  e2e

 app.e2e-spec.js

 app.e2e-spec.js.map

 app.e2e-spec.ts

 members.component.e2e-spec.js


 members.component.e2e-spec.js.map

 members.component.e2e-spec.ts

 person.component.e2e-spec.js

 person.component.e2e-spec.js.map

 person.component.e2e-spec.ts

 view.e2e-spec.js

 view.e2e-spec.js.map

 view.e2e-spec.ts

▶  unit

My First Angular 2 App

View1

View2

Members

Members

Search

Name	Phone
Peyton Manning	(303) 567-8910
Demaryius Thomas	(720) 213-9876
Von Miller	(917) 323-2333

My First Angular 2 App

View1

View2

Members

Members

Thomas

Search

Name	Phone
Demaryius Thomas	(720) 213-9876

My First Angular 2 App

View1

View2

Members

Member Details

Name : Demaryius Thomas

Phone: (720) 213-9876

Street: 5555 Marion Street

City: Denver

State: CO

Zip: 80202

```
[1] [23:48:38] I/direct - Using ChromeDriver directly...
[1] [23:48:38] I/launcher - Running 1 instances of WebDriver
[1] AppDir: ./
[1] Started
[1]
[1] Suite: Given should test the search feature
[1] .
[1]   passed - should have an input and search button
[1] .
[1]   passed - There should be one item in search result
[1] Suite passed: Given should test the search feature
[1] Suite: Given should test the search result in details view
[1] .
[1]   passed - should be load the person details page
[1] Suite passed: Given should test the search result in details view
[1] Suite: Given views should flip through navigation in
[1] .
[1]   passed - View1 should load and visible initially
[1] .   passed - View1 should have body content as expected
[1] .
[1]   passed - Should flipped to View2 and view2 should visible
[1] .
[1]   passed - Should flipped to View2 and should have body content as expected
[1] .
[1]   passed - Should flipped to View1 again and should visible
[1] Suite passed: Given views should flip through navigation in
[1]
[1]
[1]
[1] 8 specs, 0 failures
[1] Finished in 17.085 seconds
[1]
[1]
[1] [23:49:00] I/launcher - 0 instance(s) of WebDriver still running
[1] [23:49:00] I/launcher - chrome #01 passed
```

Chapter 8: Telling the World

My First Angular 2 App

View1

View2

Members

I am view one component

```
[1] [23:48:38] I/direct - Using ChromeDriver directly...
[1] [23:48:38] I/launcher - Running 1 instances of WebDriver
[1] AppDir: ./
[1] Started
[1]
[1] Suite: Given should test the search feature
[1] .
[1]   passed - should have an input and search button
[1] .
[1]   passed - There should be one item in search result
[1] Suite passed: Given should test the search feature
[1] Suite: Given should test the search result in details view
[1] .
[1]   passed - should be load the person details page
[1] Suite passed: Given should test the search result in details view
[1] Suite: Given views should flip through navigation in
[1] .
[1]   passed - View1 should load and visible initially
[1] .   passed - View1 should have body content as expected
[1] .
[1]   passed - Should flipped to View2 and view2 should visible
[1] .
[1]   passed - Should flipped to View2 and should have body content as expected
[1] .
[1]   passed - Should flipped to View1 again and should visible
[1] Suite passed: Given views should flip through navigation in
[1]
[1]
[1]
[1] 8 specs, 0 failures
[1] Finished in 17.085 seconds
[1]
[1]
[1] [23:49:00] I/launcher - 0 instance(s) of WebDriver still running
[1] [23:49:00] I/launcher - chrome #01 passed
```

My First Angular 2 App

View1

View2

Members

Members

Search

Name	Phone
Peyton Manning	(303) 567-8910
Demaryius Thomas	(720) 213-9876
Von Miller	(917) 323-2333

