

07 - AngularJS live coding

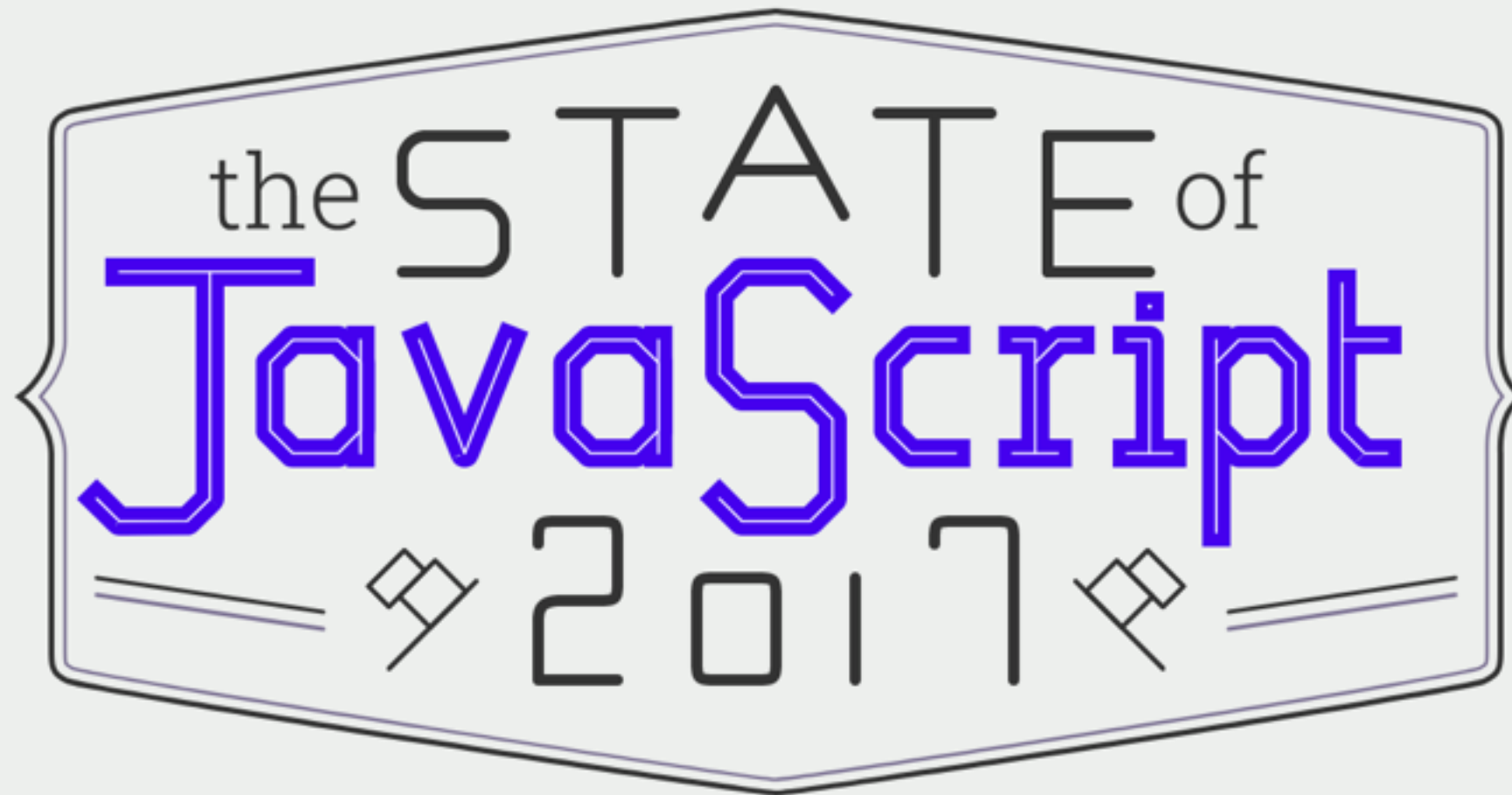
Hands-on intro to AngularJS concepts

TWEB 2017
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<https://softeng-heigvd.github.io/Teaching-HEIGVD-TWEB-2017-Main/>

<https://t.me/joinchat/CPPWmAsLLgWdXQhoXTaNHw>

<https://t.me/joinchat/AAAAAEE3IWzr-jZRRMq3qg>



JavaScript is great!

JavaScript is a mess!

2017 results just published

Ingredients

Yo



GRUNT



ANGULARJS
Material

 [johnpapa](#) / [angular-styleguide](#)

AngularJS Patterns: Clean Code

Learn how to write AngularJS code using battle tested patterns to produce code that is easier to maintain, debug, and scale.





ANGULARJS
Material

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What is AngularJS Material?

AngularJS Material is both a UI Component framework and a reference implementation of Google's Material Design Specification. This project provides a set of reusable, well-tested, and accessible UI components based on Material Design.



GETTING STARTED



CONTRIBUTORS



DEMOS



CUSTOMIZATION



API REFERENCE

Demo



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```
$ npm install -g yo
```

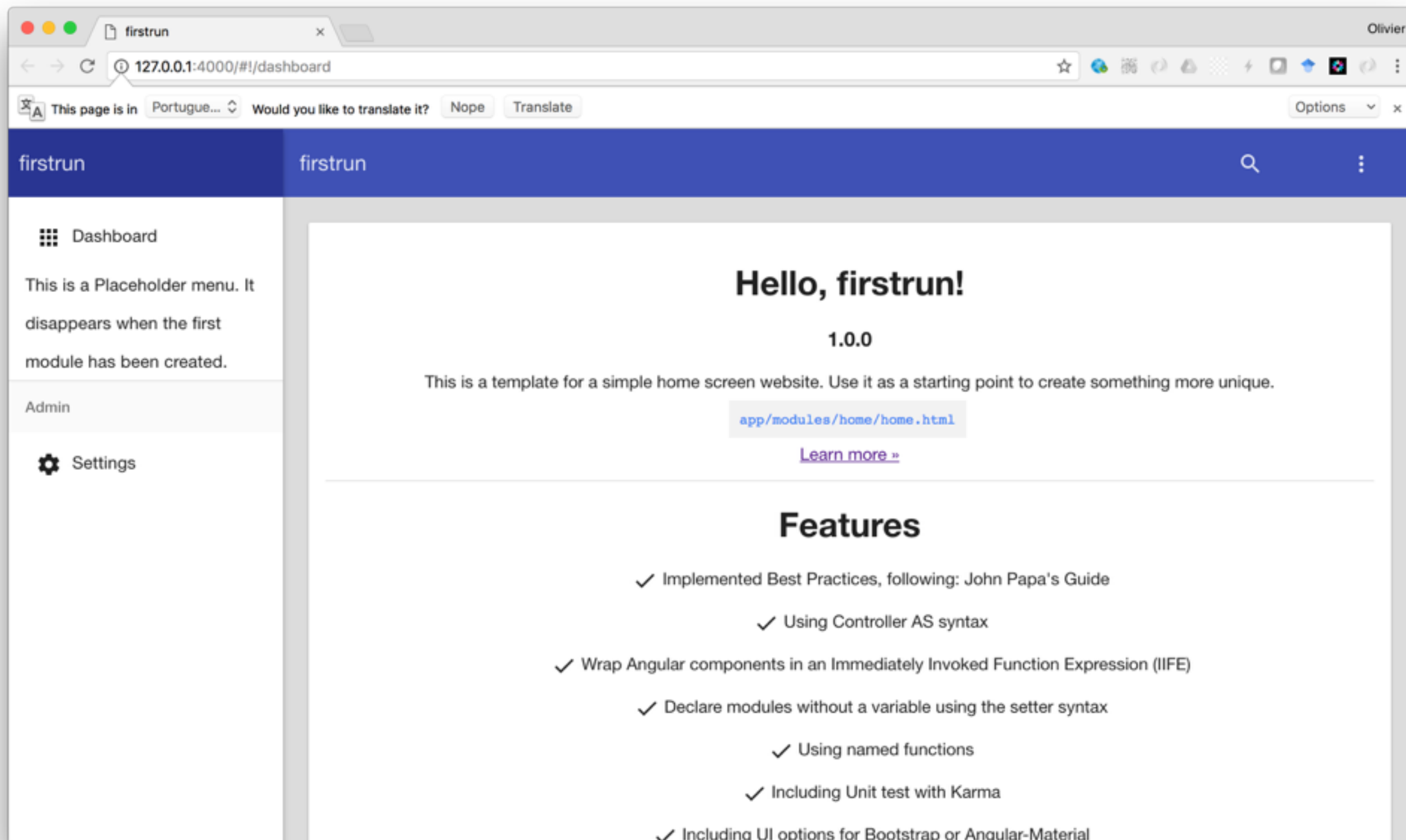
```
$ npm install -g generator-angular
```

```
$ npm install -g grunt-cli
```

```
$ npm install -g bower-installer
```

```
$ yo angular
```

```
$ grunt dev
```



firstrun

127.0.0.1:4000/#!/dashboard

This page is in Portuguese... Would you like to translate it? Nope Translate

firstrun

Dashboard

This is a Placeholder menu. It disappears when the first module has been created.

Admin

Settings

Hello, firstrun!

1.0.0

This is a template for a simple home screen website. Use it as a starting point to create something more unique.

`app/modules/home/home.html`

[Learn more »](#)

Features

- ✓ Implemented Best Practices, following: John Papa's Guide
 - ✓ Using Controller AS syntax
- ✓ Wrap Angular components in an Immediately Invoked Function Expression (IIFE)
 - ✓ Declare modules without a variable using the setter syntax
 - ✓ Using named functions
 - ✓ Including Unit test with Karma
- ✓ Including UI options for Bootstrap or Angular-Material

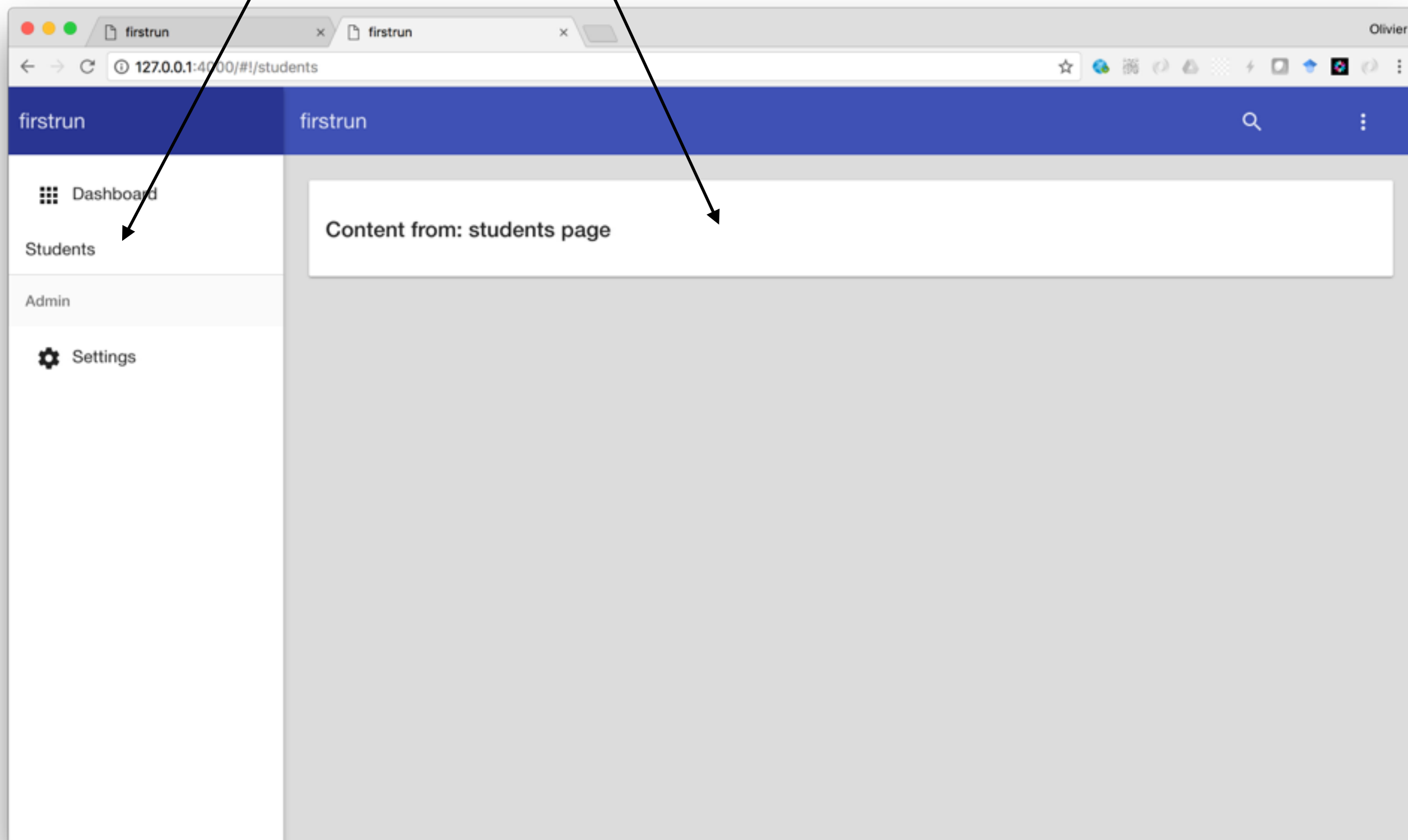
Sub-generator



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```
$ yo angm:angm-module
```

The yo generator helps us with the organization of our code in folders and files.




```
app/  
├─ app.config.js  
├─ app.js
```

```
├─ assets  
│   ├─ css  
│   ├─ fonts  
│   └─ images  
└─ modules
```

```
├─ home  
│   ├─ dashboard.html  
│   ├─ home-test.js  
│   ├─ home.html  
│   ├─ homeCtrl.js  
│   ├─ homeModule.js  
│   ├─ homeRoute.js  
│   └─ homeService.js
```

```
├─ layouts  
│   ├─ main-page  
│   │   ├─ main-page.html  
│   │   └─ mainPageCtrl.js  
│   ├─ nav-bar  
│   │   └─ navBarService.js  
│   └─ side-nav  
│       ├─ sidenav.html  
│       ├─ sidenavCtrl.js  
│       └─ sidenavService.js  
└─ shared
```

```
├─ students  
│   ├─ students-test.js  
│   ├─ students.html  
│   ├─ studentsCtrl.js  
│   ├─ studentsModule.js  
│   ├─ studentsRoute.js  
│   └─ studentsService.js
```

Source files

Bootstrapping



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```
<!DOCTYPE html>
<html lang="pt" ng-app="firstrun">
<head>
  <base href="/">
  <!-- injector:css -->
  <link rel="stylesheet" href="/src/bower_components/angular-material-icons/angular-material-icons.css">
  <link rel="stylesheet" href="/src/bower_components/angular-material/angular-material.css">
  <!-- endinjector -->
</head>

<body ng-cloak>

  <!--Beginning-->
  <div ui-view layout="row" layout-fill></div>
  <!--End-->

  <!--Templates. Remove then to a better location -->
  <script type="text/ng-template" id="tabDialog.tmpl.html">
    <md-dialog
  </script>

  <!-- injector:js -->
  <script src="/src/bower_components/angular/angular.js"></script>
  <script src="/src/bower_components/angular-material/angular-material.js"></script>
  <script src="/src/bower_components/angular-ui-router/release/angular-ui-router.js"></script>
  <script src="/app/app.js"></script>
  <script src="/app/app.config.js"></script>
  <script src="/app/modules/home/homeModule.js"></script>
  <script src="/app/modules/students/studentsModule.js"></script>
  ...
  <script src="/app/modules/layouts/nav-bar/navBarService.js"></script>
  <script src="/app/modules/layouts/side-nav/sidenavService.js"></script>
  <script src="/app/modules/students/studentsService.js"></script>
  <!-- endinjector -->
```

Bootstrapping



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```
injector: {
  options: {},
  dev: {
    files: {
      'index.html': [
        'bower.json',
        'app/app.js',
        'app/app.config.js',
        'app/**/*.Module.js',
        'app/**/*.Route.js',
        'app/**/*.Ctrl.js',
        'app/**/*.Service.js',
        'app/**/*.Directive.js'
      ]
    }
  },
  production: {
    files: {
      'index.html': [
        'app/assets/css/**/*.css',
        'app/assets/js/*.js'
      ]
    }
  }
},
```

Modules

```
(function () {  
    'use strict';  
  
    /**  
     * @ngdoc function  
     * @name app.module:studentsModule  
     * @description  
     * # studentsModule  
     * Module of the app  
     */
```

```
angular.module('students', []);
```

```
})();
```

declare a new module,
which does not have dependencies

Routing

```
angular.module('students')  
  .config(['$stateProvider', function ($stateProvider) {  
    $stateProvider  
      .state('home.students', {  
        url: '/students',  
        templateUrl: 'app/modules/students/students.html',  
        controller: 'StudentsCtrl',  
        controllerAs: 'vm'  
      });  
  }]);
```

lookup the module and call its configuration function

inject a dependency on the \$stateProvider service into the config function

In the template, we will have an instance of StudentsCtrl and refer to it as 'vm'

Templates

```
<md-sidenav layout="column" class="md-sidenav-left">
</md-sidenav>
<div layout="column" ng-controller="LayoutCtrl as layout">
  <md-content layout="column" flex md-scroll-y>
    <div ui-view></div>
  </md-content>
</div>
```

The students.html view is injected in the
home/home.html template (in the ui-view div)

```
<div class="md-padding" flex layout-sm="column">
  <md-card>
    <md-card-content>
      <h2 class="md-title">Content from: students page</h2>
    </md-card-content>
  </md-card>
</div>
```

MVC

```
(function() {  
    'use strict';  
  
    angular  
        .module('students')  
        .controller('StudentsCtrl', Students);  
  
    Students.$inject = []; X  
  
    /**  
     * recommend  
     * Using function declarations  
     * and bindable members up top.  
     */  
  
    function Students() {  
        /*jshint validthis: true */  
        var vm = this;  
    }  
  
})();
```

```
(function() {  
    'use strict';  
  
    /**  
     * @ngdoc function  
     * @name app.service:studentsService  
     * @description  
     * # studentsService  
     * Service of the app  
     */  
  
    angular  
        .module('students')  
        .factory('StudentsService', Students);  
    // Inject your dependencies as .$inject = X  
    ['$http', 'someSevide'];  
    // function Name ($http, someSevide) {...}  
  
    Students.$inject = ['$http'];  
  
    function Students ($http) {  
  
    }  
  
})();
```