

Testing AngularJS

Estimated time for completion: 30 minutes

Overview:

In this lab you will unit test an AngularJS application using Jasmine and Karma.

Goals:

* Install and configure Karma to run your tests.
* Write Jasmine specifications for both controllers and the routes.

Lab Notes:

Don’t forget to reference the AngularJS documentation at <http://docs.angularjs.org/api>.

Install and configure the Karma test runner

In this part of the lab, you will install and configure the Karma test runner to execute your unit tests as soon as you save one of the JavaScript files.

**Helpful links:**

* [The AngularJS documentation](http://docs.angularjs.org/api).
* [The Karma test runner](http://karma-runner.github.io/).

Steps:

1. Install Karma using the Node Package Manager.
2. Create the Karma configuration file by starting Karma with the init option.
   1. Make sure to include all the AngularJS files used in the application
   2. Make sure to add angular-mocks.js.
   3. Add all the code under test from the Public/App folder
   4. Add all files in the Public/AppTests folder. This folder is still empty but make sure Karma will automatically pick up any JavaScript files created here.
3. Start Karma with the start option so it will start executing unit tests. Note that it warns you that the Public/AppTests folder doesn’t contain any matching files yet.

Write Jasmine unit tests for both controllers

In this part of the lab, you will write unit tests for both controllers in the application.

**Helpful links:**

* [The AngularJS documentation](http://docs.angularjs.org/api).
* [The Jasmine documentation](http://pivotal.github.io/jasmine/).

Steps:

1. Open up App.js and inspect the PeopleListCtrl
   1. Create a unit test to make sure this controller can be loaded.
   2. Create a unit test to verify that the people array in the $scope is populated with the people collection passed into the controller.
   3. Create a unit test to verify that the select() function uses the $location.path() function to navigate to the PersonEditorCtrl.
2. Open up App.js and inspect the PersonEditorCtrl.
   1. Create a unit test to make sure this controller can be loaded.
   2. Create a unit test to make sure the person passed into the controller is stored in $scope.currentPerson.
   3. Create a unit test that ensures the person is saved when the $scope.save() is called.
   4. Create a unit test that ensures the person is not saved when the $scope.cancel() is called.
3. Make sure that Karma is running and that all tests pass.

Write Jasmine unit tests for the routing

In this part of the lab, you will write unit test to verify that routing has been set up the way the application expects.

**Helpful links:**

* [The AngularJS documentation](http://docs.angularjs.org/api).
* [The Jasmine documentation](http://pivotal.github.io/jasmine/).

Steps:

1. Open up App.js and inspect the routing configuration.
   1. Create a unit test that ensures /people load the PeopleListCtrl and PeopleList.html template.
   2. Create a unit test that ensures /person/:id load the PersonEditorCtrl and PersonEditor.html template.
   3. Create a unit test that ensures that any other route redirects to /people.
2. Make sure that Karma is running and that all tests pass.

Solutions:

The final solution for this lab is available in the ~/after directory.