

# Testing AngularJS- Apps

AUTOMATICALLY CROSS-BROWSER-TESTING WITH JASMINE AND KARMA-RUNNER

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# Agenda

- ▶ What the hack is...
  - ▶ ... AngularJS?
  - ▶ ... Jasmine?
  - ▶ ... Karma-Runner?
  - ▶ ... Codeship.io & ... Coveralls.io? & ... Codeclimate.com?
- ▶ Combining those (Live Demo)
  - ▶ Writing tests for AngularJS-Apps
  - ▶ Run them in Karma
  - ▶ Measure Test-Coverage & Code Metrics
  - ▶ Use “Continuous Integration”-services
- ▶ Lookout

# What the hack is **AngularJS**?

- ▶ Modern MVC-JavaScript-Framework from Google
  - ▶ Called “Model-View-Whatever” by its creators
- ▶ Descriptive, not imperative, UIs
- ▶ Implements techniques like Dependency Injection and Data-Binding
- ▶ Test friendly due to easy “mockable” core libraries
- ▶ Abstracts “browser-oddities” (due to internal usage of jQuery-subset)
- ▶ Easy extendable due to a lot of available directives/components
- ▶ „Angular is what HTML would have been had it been designed for applications.“



# What the hack is **Jasmine**?

- ▶ BDD testing framework
- ▶ Used by AngularJS team for unit testing the framework
- ▶ Great for unit and functional testing
- ▶ “Speaking” syntax



# What the hack is **Karma-Runner**?

- ▶ Test-Runner from AngularJS-Team
- ▶ Runs tests (Jasmine, Mocha, Qunit,...) on all major JavaScript-engines (enabling it to do functional testing)
- ▶ Watches filesystem for triggering test-runs
- ▶ Plugins for code coverage measuring





# What the hack is **Codeship.io**?

- ▶ “Continuous Integration in the Cloud”-provider
- ▶ Quite new, therefore not as crowded as e.g. Travis CI
- ▶ Offers SSH access to virtual machines -> enables direct debugging
- ▶ System images have preinstalled version of *Chrome*, *Firefox* and *PhantomJS* – great for running tests with *Karma*
- ▶ Gives you badges 😊
- ▶ Free for Open Source projects



# What the hack is **Coveralls.io**?

- ▶ Online-service for tracking test coverage of your code
- ▶ Gives you badges 😊
- ▶ Free for Open Source projects



# What the hack is **Codeclimate.com**?

- ▶ Online-service for measuring some code metrics
- ▶ Code linting (more or less useful)
- ▶ Supports Ruby and JavaScript
- ▶ Free for Open Source projects







# Live-Demo

# Lookout

- ▶ Using Grunt.js for building your application (minifying etc.)
- ▶ Testing your backend using API Blueprint & Dredd
- ▶ Managing frontend dependencies with Bower & registering your project



# Thank you for your attention

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