Angular or Backbone: Go Mobile!
Part 2 To Do App Demo

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- Over 18 years of experience in the software industry focusing on web technologies
- Spoke and published widely at O'Reilly OSCON, Fluent, HTML5 Dev Conf, JavaOne, Google Developer Conference, Silicon Valley Code Camp and worldwide User Groups meetups
- Doris received her Ph.D. from the University of California at Los Angeles (UCLA)

Agenda

Demo

ToDo MVC in Angular and Backbone

When to use Angular?

- Something declarative that uses View to derive behavior
- Custom HTML tags and components that specify your application intentions
- Easily testable, URL management (routing) and a separation of concerns through a variation of MVC
- Good at making quick changes
  - create easily testable code and test it often
- Not a good fit for Angular
  - Games and GUI editors are examples of applications with intensive and tricky DOM manipulation, different from CRUD apps
    - may be better to use a library like jQuery
- Has its own scaffolding tools available (angular-seed)

When to use Backbone?

- Something flexible, offers a minimalist solution
- Support a persistence layer and RESTful sync, models, views (with controllers), event-driven communication, templating and routing
- Imperative, update View when model changes
- Like some decisions about the architecture left to you
- Building something complex,
  - Active extension community Marionette[62], Chaplin[63], Aura[64], Thorax[65]
  - Scaffolding tools (grunt-bbb[66], brunch[67])

Performance Comparison: TodoMVC Benchmark

- Angular (v1.2.14), Backbone (v1.1.2) + jQuery (v2.1.0)
- Test case:
  - Add 100 todos, toggle them one by one, then delete them one by one,
  - 10 runs average
    - Data collected on an Late 2013 Retina Macbook Pro 13 with a 2.6GHz dual-core i5-4288U Processor under OS X Mavericks 10.9.1.
- Average Response on Chrome 33, Firefox 28 and Safari 7
  - AngularJS   1617.72ms
  - Backbone   833.36ms
- http://vuejs.org/perf/

Summary

- Backbone was easier to learn compared to Angular
- Backbone tends to be faster than Angular in ToDoMVC perf tests
- Angular resulted in fewer lines code than Backbone for our app making it easier to maintain
- Angular provided far more features (e.g. data-binding, custom directives, declarative markup)

Resources

- AngularJS: http://angularjs.org

- BackboneJS: http://backbonejs.org

- My ToDo app on github
  https://github.com/doristchen/AngularBackbone

- ToDo MVC: http://todomvc.com