An Introduction to Ember 2 with Ember CLI

David Tang
@skaterdav85

About Me

David Tang

UI Architect

ITP Lecturer

Sr. JavaScript Developer

Agenda

- What is Ember?

- Why Ember?

- Installing Ember CLI

- Getting Started

- Demo

- Resources

What is Ember?

- An opinionated JavaScript framework

  - Ember, Ember Data, Ember CLI

- Most often compared to Angular, Backbone, and React

Why Ember?

- Convention over configuration => large teams, on-boarding

- Focus on the app and solve the interesting problems

- Stability without stagnation

- Ember CLI => Build process, generators, ES6

- Ember Data

- Testing

Installing Ember CLI

- Node CLI for building Ember applications

- Install without sudo

- Installs Ember & Ember Data 1.13.8

- Broccoli browser compilation library

```
$ npm install -g ember-cli

# npm config set prefix ~/npm
# PATH=$PATH:$HOME/npm/bin
```

Getting Started

- Scaffolding

- Live reload

- ES6

- Bower and NPM

- JSHint

- Tests

```
$ ember new codecamp2015
$ cd codecamp2015
$ ember server
```

```
$ ember --help
$ ember new --help
$ ember generate --help
```
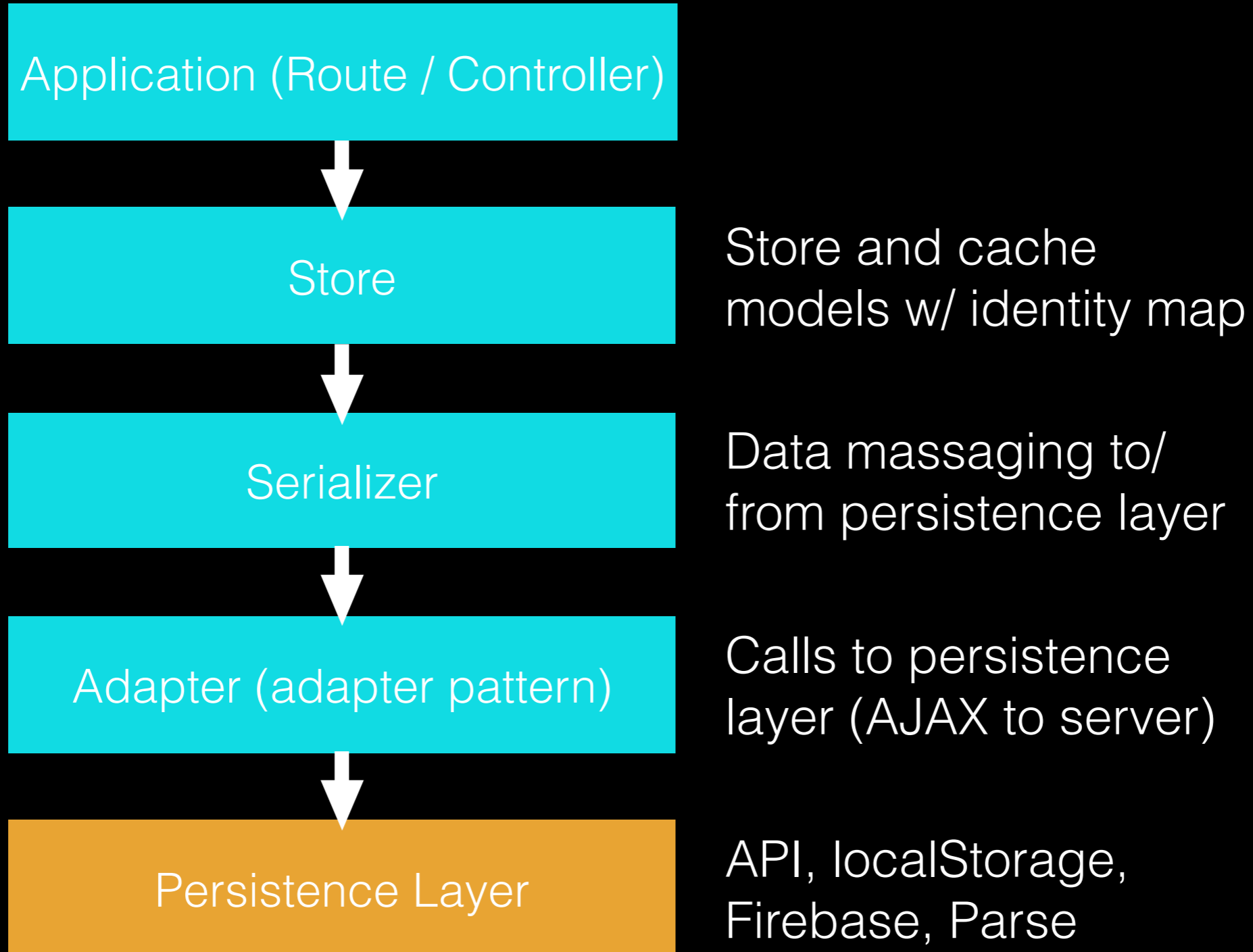
Demo

- Handlebars templates

- Routing

- Models, Adapters, Serializers

- Components

- Helpers

- Controllers

- Computed Properties and Macros

Ember Data

Application (Route / Controller)	
↓	
Store	Store and cache models w/ identity map
↓	
Serializer	Data massaging to/ from persistence layer
↓	
Adapter (adapter pattern)	Calls to persistence layer (AJAX to server)
↓	
Persistence Layer	API, localStorage, Firebase, Parse

Ember Data Caching

```
/user/1   →   Store   →   Server
          ←          ←
```

```
/user/1   →   Store
          ←
```

Stale data? … NO!

```javascript
makeBackgroundRequest().then(() => {
  if (recordHasBeenUpdated) {
    updateRecord();
    updateTemplate();
  }
});
```

Computed Properties

```
Person = Ember.Object.extend({
  fullName: Ember.computed('firstName', 'lastName', function() {
    return `${this.get('firstName')} ${this.get('lastName')}`;
  })
});

var ironMan = Person.create({
  firstName: 'Tony',
  lastName:  'Stark'
});

ironMan.get('fullName'); // "Tony Stark"
```

http://guides.emberjs.com/v2.1.0/object-model/computed-properties/

Resources

- Ember Guides

- Rock and Roll with Ember ebook - paid

- Ember 101 (formerly Ember CLI 101) - free

- discuss.emberjs.com

- Deliver Audacious Web Apps with Ember 2

- Testing in Ember with Ember CLI

  - https://www.codementor.io/ember-js/tutorial/testing-emberjs-with-ember-cli

Thank you,

David Tang
thejsguy.com
@skaterdav85