

Data Services on the Client

John Papa



Agenda

- The Value of Client Data Patterns
- Data Services
- Data Context / Repository
- Model objects

JavaScript Modularity Recap

HTML / Views

Bootstrapper

MVVM Binder

Data Primer

View Models

Sort

Group

Filter

Models

Data Context

Data Service

Model
Mappers

Agenda

- **The Value of Client Data Patterns**
 - What problem are we solving?
- **Data Services**
- **Data Context / Repository**
- **Model objects**

jQuery AJAX Calls

```
$('#getSessionsButton').click(function () {  
    var url = '/api/sessionbriefs';  
    $.ajax({  
        url: url,  
        dataType: 'json',  
        success: function(data) {  
            // Use data to create observable Models  
        }  
    });  
});
```



Scattered
Throughout the
SPA?

A Better Way

```
datacontext.sessions.getData({data: sessions});
```

Code Re-Use
(in many ViewModels)

Easier to read and
maintain

Single Responsibility
Principle (SRP)

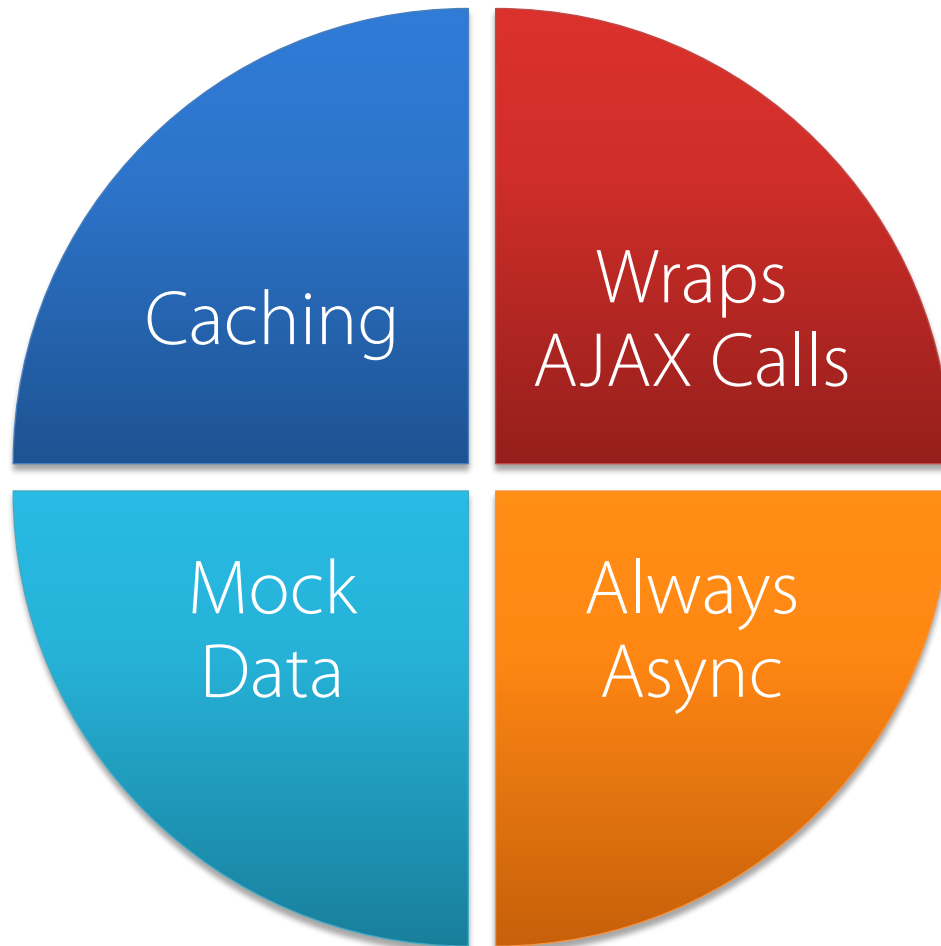
Agenda

- The Value of Client Data Patterns
- Data Services
 - Simplify
 - Code-Reuse
- Data Context / Repository
- Model objects

Adding Features to a DataService



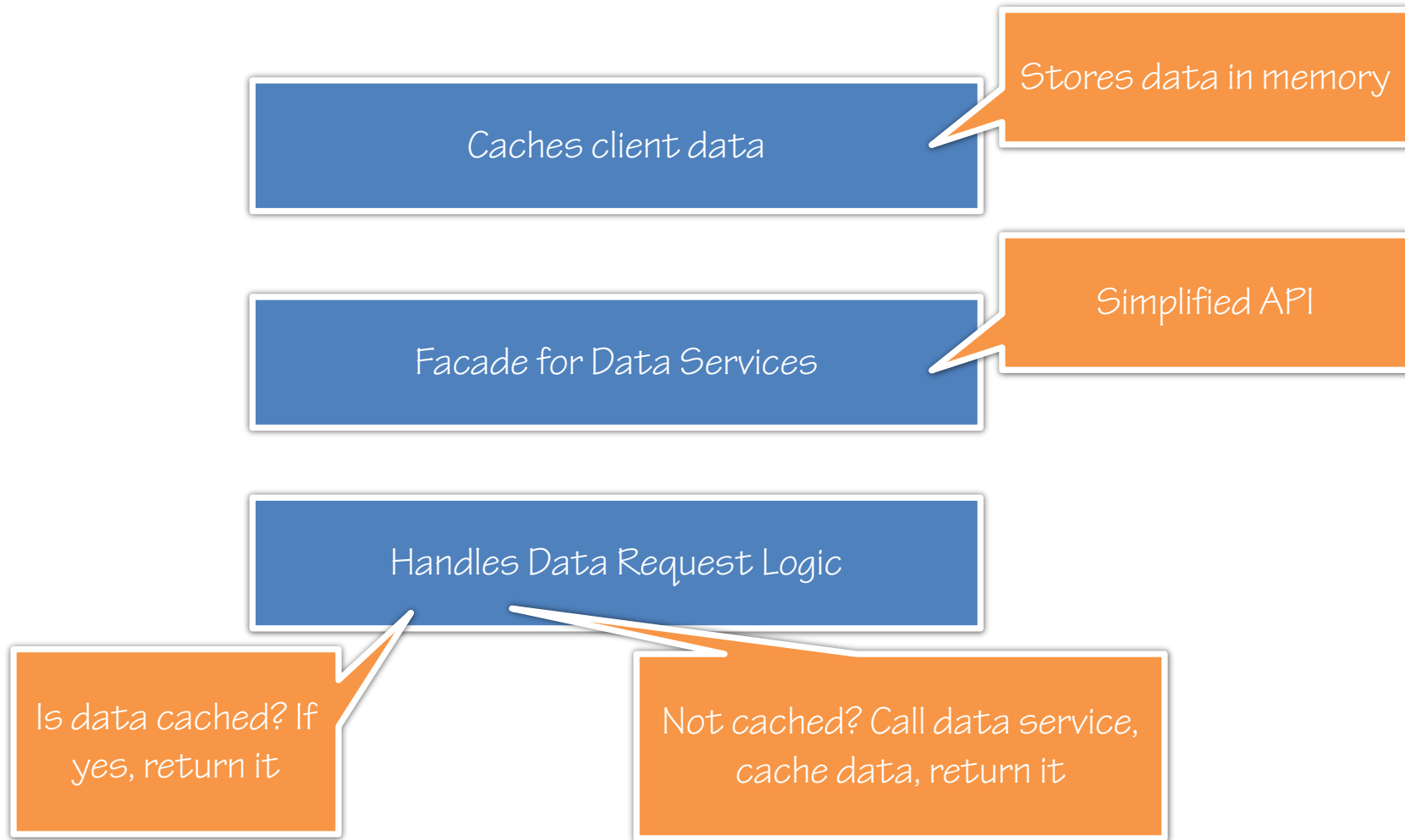
<http://amplifyjs.com/>



Agenda

- The Value of Client Data Patterns
- Data Services
- Data Context / Repository
 - Simplify
 - Cache Models
 - Navigate Models
- Model objects

Role of the Data Context



Agenda

- The Value of Client Data Patterns
- Data Services
- Data Context / Repository
- Model objects
 - Objects
 - Mappers
 - Navigation



1

View Model

favorites

sessions

speakers

SAT MAY 18



SUN MAY 19



filter by room, speaker, tag, title, or track



SHOWING 7 SESSIONS

Refresh

2

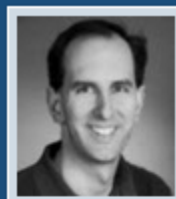
Sessions

3

Session

4

Speaker



Sat 09:00 am at Pelham Bay
Keynote

SCOTT GUTHRIE
KEYNOTE

INTERMEDIATE
.NET



Sat 10:10 am at Venice
Building HTML/JavaScript Apps with
Knockout and MVVM

JOHN PAPA
JAVASCRIPT, KNOCKOUT, MVVM, HTML5, WEB

ADVANCED
JAVASCRIPT



Sat 10:10 am at Paris
A JavaScript Toolbox

WARD BELL
JAVASCRIPT, WEB

INTERMEDIATE
JAVASCRIPT



Recap of JavaScript Data Modules and Patterns



View Models Need Data



Keep It Simple

```
datacontext.sessions.getData({data: sessions});
```

Summary

■ Data Services

- AJAX
- HTTP Caching
- Mock Data

■ Data Context / Repository

- Caches models
- Figures out how to get the data
 - local or over HTTP

■ Models

- Mappers
- Object Navigation / Relations

**Coming Soon:
Promising Data Context Libraries**

ASP.NET Team's
Upshot.js

Breeze
www.breezejs.com