

Mastering SPA

Tibi Covaci

In Just One Day

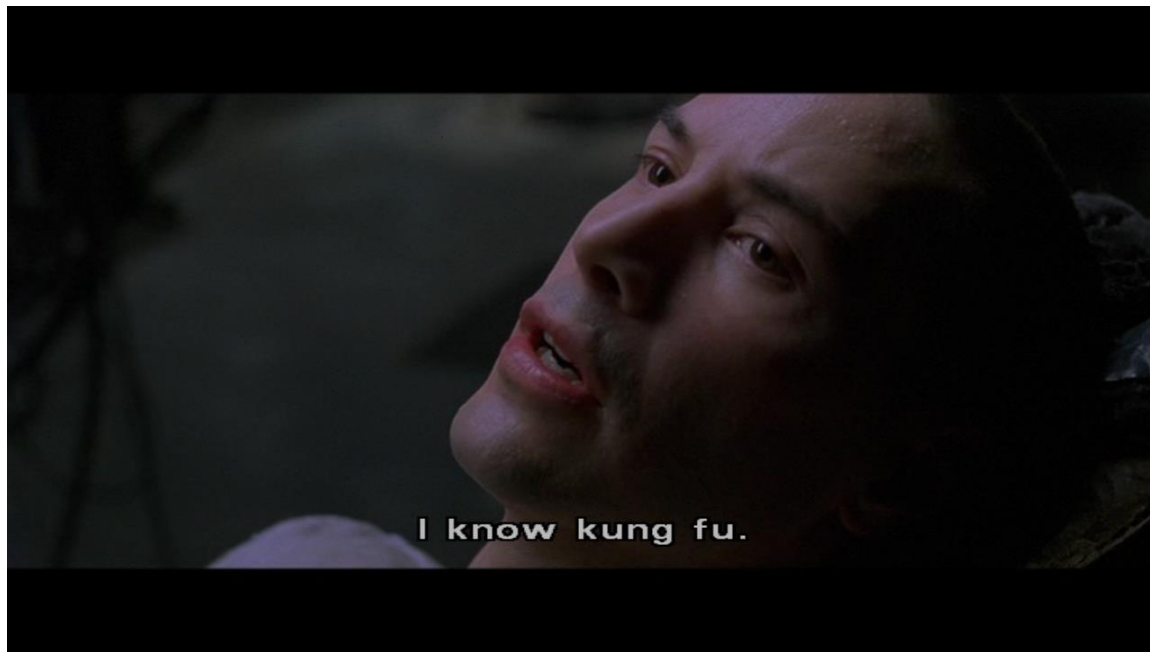


This is SPA



Mastering Single Page Applications

In Just One Day





Who am I

- Tiberiu 'Tibi' Covaci
- Software engineer, 20 years experience
- Senior Trainer & Mentor in Romania
- MVP for Windows Azure
- Father & Geek
- Twitter: @tibor19 / [#devreach](#)

Agenda

- What is SPA
- Why we need it
- When we need it 😊
- MVVM Intro

Agenda

- ASP.NET WebApi
- Knockout.js
- Require.js
- Durandal.js
- Breeze.js

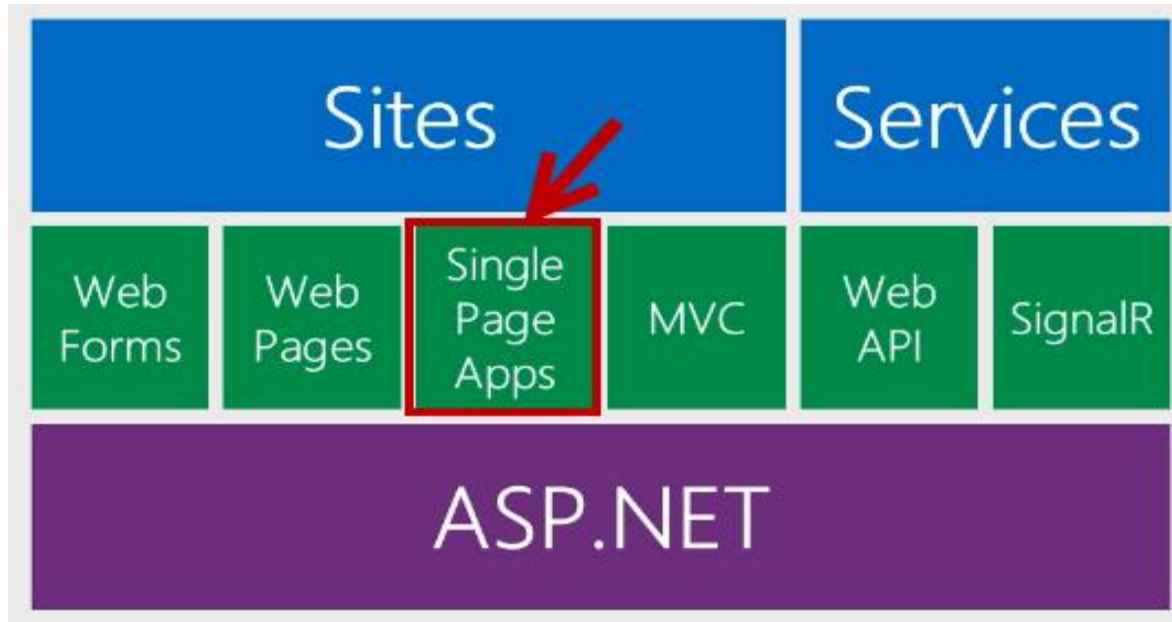
Single Page Application

Rich Client App in HTML/JavaScript

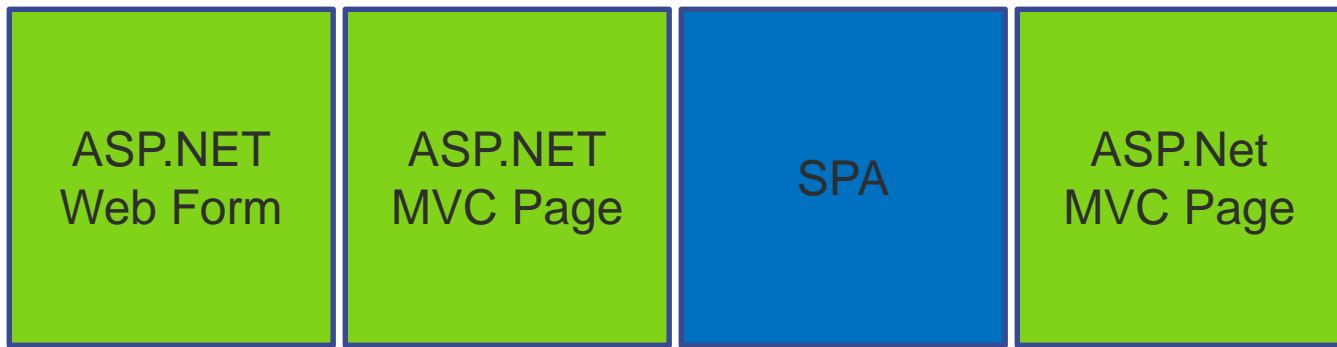
Why SPA?



One ASP.NET



Hybrid is the norm



No one pattern is the best

Evolution, not revolution



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MVVM

- Model View View-Model
- Model
 - The business data
- View-Model
 - The programmatic representation of your UI
- View
 - The UI

MVVM On the client

- AngularJS
- Backbone
- Batman
- CanJS
- Ember
- Knockout
- Meteor
- Spine

<http://bit.ly/OJ4SUM>

ASP.NET WebApi

- ASP.NET Web API is a framework that makes it easy to build HTTP services that reach a broad range of clients, including browsers and mobile devices.
- ASP.NET Web API is an ideal platform for building RESTful applications on the .NET Framework.



Knockout



Knockout

What is Knockout

- Independent library
- Developed by Steven Sanderson
 - Now works for the company! 😊
- JavaScript MVVM framework
- Works well with other frameworks

Knockout but How

- Declarative bindings
- Automatic refresh
- Dependency tracking
- Support for templating

Knockout observables

- Observable properties
- Observable arrays
- Computed(dependent) observables

Knockout bindings

- Controlling text and appearance
- Control flow
- Form field bindings
- Rendering templates
- Custom bindings



Demo

learn more **Knockout.** *at*

knockoutjs.com

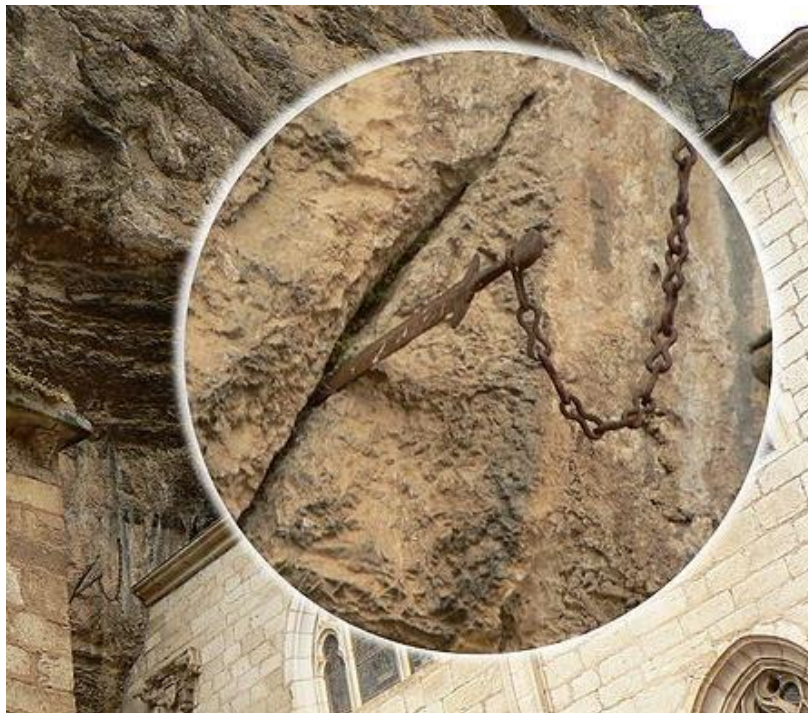


What is Require.js

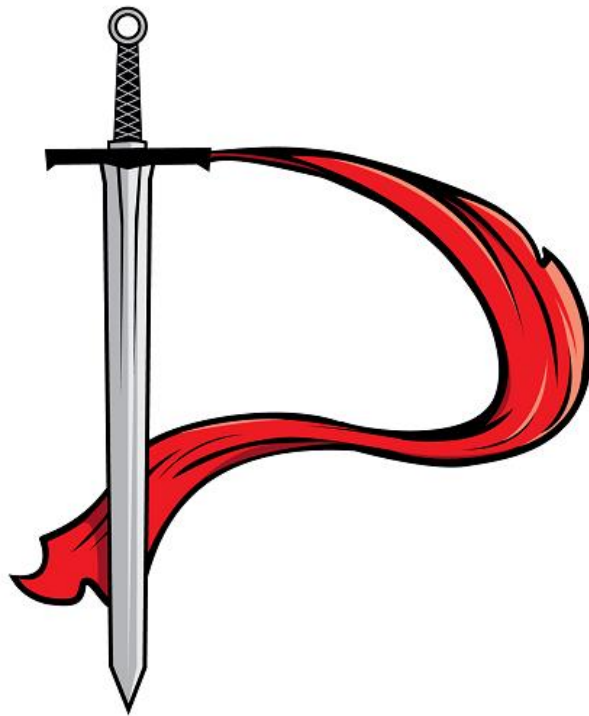
RequireJS is a JavaScript file and module loader. It is optimized for in-browser use, but it can be used in other JavaScript environments, like Rhino and Node. Using a modular script loader like RequireJS will improve the speed and quality of your code.

Require.js in the World

IE	6+	.....	compatible	✓
Firefox	2+	.....	compatible	✓
Safari	3.2+	.....	compatible	✓
Chrome	3+	.....	compatible	✓
Opera	10+	.....	compatible	✓



Durendal



Durandal

What is Durandal

- Clean MV* Architecture
- JS & HTML Modularity
- Simple App Lifecycle
- Eventing, Modals, Message Boxes, etc.
- Navigation & Screen State Management
- Consistent Async Programming w/ Promises
- App Bundling and Optimization

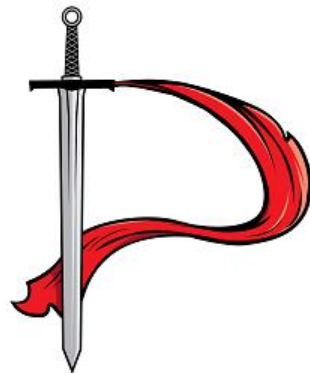
Durandal

- Use any Backend Technology
- Built on top of jQuery, Knockout & RequireJS
- Integrates with other libraries such as Bootstrap
- Make jQuery & Bootstrap widgets templatable and bindable (or build your own widgets).



Demo

learn more



at

durandaljs.com



Breeze

Breeze

Rich data

Client Queries

Caching

Change Tracking

Validation

Batch Save

Roll Your
Own

Breeze



Free

Open Source ([GitHub](#))

MIT License

My Todo List

Hello, [tibi](#) | [Log off](#)

Add Todo list

Save Changes

x

My Todo List #1

- ☐ Todo item #1 x
- ☐ Todo item #2 x
- ☐ Add new elem x
- ☐ Text x

Type here to add



Demo

learn more **Breeze** *at*

breezejs.com



Thank you!



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