

Widening your Javascript Application:

Organizational Tips from the (Front End) Front Line

Alex McPherson

+

Quick Left

Overview

- Should I be here
- Should I trust this guy
- 5 types of javascript websites/apps
- When to level up

Should I be here?

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Should I be here?

- Survey of organization styles

Should I be here?

- Survey of organization styles
- Mostly non-technical, foundational

Should I be here?

- Survey of organization styles
- Mostly non-technical, foundational
- JavaScr-whatnow?—x————TC39

Who ARE you?

Alex McPherson

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Who ARE you?

- Sublime Text

Who ARE you?

- Sublime Text
- Railscast Theme

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Who ARE you?

- Sublime Text
- Railscast Theme
- Commas last

Who ARE you?

- Sublime Text
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- ALWAYS put in semicolons

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- Alex

Who ARE you?

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- Alex
- Boulder

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- Manute Bol of JavaScript

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Manute Bol



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Format

- APPLICATION_TYPE
 - Example website
 - Tools it might leverage
 - How to refactor to get to here
 - Signs you might want to level up

Type 0: No JS

Example:

Tools it might leverage:

How to get here:

When to level up:

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Type 0: No JS

Example: Mom's cat website

Tools it might leverage:

How to get here:

When to level up:

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Type 0: No JS

Example: Mom's cat website

Tools it might leverage: None!

How to get here:

When to level up:

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Type 0: No JS

Example: Mom's cat website

Tools it might leverage: None!

How to get here: Write some HTML

When to level up:

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Type 0: No JS

Example: Mom's cat website

Tools it might leverage: None!

How to get here: Write some HTML

When to level up: When you want to be awesome

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Type 1: Declarative

Example:

Tools it might leverage:

How to get here:

When to level up:

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Type 1: Declarative

Example: Modals and a carousel

Tools it might leverage:

How to get here:

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Type 1: Declarative

Example: Modals and a carousel

Tools it might leverage: Bootstrap.js

How to get here:

When to level up:

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Type 1: Declarative

Example: Modals and a carousel

Tools it might leverage: Bootstrap.js

How to get here: Plugins, /lib folder

When to level up:

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Type 1: Declarative

Example: Modals and a carousel

Tools it might leverage: Bootstrap.js

How to get here: Plugins, /lib folder

When to level up: Plugins++, Editing them

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Type 2: $\$(doc).ready$

Example:

Tools it might leverage:

How to get here:

When to level up:

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Type 2: *\$(doc).ready*

Example: Landing page

Tools it might leverage:

How to get here:

When to level up:

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Simple `$(doc).ready`

```
1  $(document).ready(function() {  
2  
3    $('.modal').on('click', '.close', function() {  
4      //close and stuff  
5    });  
6  
7    $('#main').on('submit', 'form', function() {  
8      //AJAX submission  
9    });  
10  
11    var ajaxSuccess = function() {  
12      //something good  
13    }  
14  
15    var showErrors = function() {  
16      //whoopsies!  
17    }  
18  
19  });  
20
```

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Type 2: *\$(doc).ready*

Example: Landing page

Tools it might leverage:

How to get here:

When to level up:

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Type 2: *\$(doc).ready*

Example: Landing page

Tools it might leverage: Handwritten javascript!

How to get here:

When to level up:

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Type 2: *\$(doc).ready*

Example: Landing page

Tools it might leverage: Handwritten javascript!

How to get here: `main.js`, `/libs`

When to level up:

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Type 2: `$(doc).ready`

Example: Landing page

Tools it might leverage: Handwritten javascript!

How to get here: `main.js, /libs`

When to level up: Line count, multiple ready calls

Type 3: Objects

Example:

Tools it might leverage:

How to get here:

When to level up:

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Type 3: Objects

Example: Small blog

Tools it might leverage:

How to get here:

When to level up:

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Simple Objects

```
1  var App = {};  
2  
3  App.dom = {};  
4  App.dataCache = {};  
5  
6  App.init = function() {  
7    App.bindEvents();  
8    App.fetchInitialData();  
9  }  
10  
11  //etc etc  
12  
13  $(document).ready(function() {  
14    App.init();  
15  });  
16
```

Type 3: Objects

Example: Small blog

Tools it might leverage:

How to get here:

When to level up:

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Type 3: Objects

Example: Small blog

Tools it might leverage: Folders, 1 global object

How to get here:

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Obligatory Paul Irish



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Type 3: Objects

Example: Small blog

Tools it might leverage: Folders, 1 global object

How to get here:

When to level up:

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Type 3: Objects

Example:

Small blog

Tools it might leverage:

Folders, 1 global object

How to get here:

`doc.readys => .init(), namespace`

When to level up:

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Type 3: Objects

Example:

Small blog

Tools it might leverage:

Folders, 1 global object

How to get here:

`doc.readys => .init(), namespace`

When to level up:

Cross-dependent classes, tired of DIY, don't know where to add event bindings

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Type 4: Modules and MVC

Example:

Tools it might leverage:

How to get here:

When to level up:

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Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage:

How to get here:

When to level up:

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Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage: Modules, MVC, templates, build tools

How to get here:

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Modules

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Modules

- AMD or CommonJS (but: AMD)

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- AMD or CommonJS (but: AMD)
- Meaningful files of code

Modules

- AMD or CommonJS (but: AMD)
- Meaningful files of code
- Guaranteed results in the browser

Modules

- AMD or CommonJS (but: AMD)
- Meaningful files of code
- Guaranteed results in the browser
- Encourages better code (I think)

Simple Module

```
1 define([
2   'underscore',
3   'backbone',
4
5   'util',
6
7   'tpl!templates/login/form.jst'
8 ],
9 function(_, Backbone, Util, presentForm) {
10
11   var LoginFormView = Backbone.View.extend({
12     events: {
13       //event delegation
14     },
15
16     initialize: function(params) {
17       //setup
18     },
19
20     render: function() {
21       //HTML onto page
22     },
23
24   });
25
26   return LoginFormView;
27 });
```

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Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage: Modules, MVC, templates, build tools

How to get here:

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MVC

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MVC

- Enhanced organization

MVC

- Enhanced organization
- Backbone, Ember, Angular

MVC

- Enhanced organization
- Backbone, Ember, Angular
- Porting DOM soup => Backbone, A++

MVC

- Enhanced organization
- Backbone, Ember, Angular
- Porting DOM soup => Backbone, A++
- Take or leave parts

Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage: Modules, MVC, templates, build tools

How to get here:

When to level up:

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Templates

```
3  renderUser: function(user) {  
4      var $container = $('#container');  
5  
6      $container.html("<div>Name: " + user.name +  
7      " <br />Address: " + user.address + "</div>");  
8  
9  }
```

Templates

```
1 <span>  
2   Name: <%= user.name %>  
3 </span>  
4 <span>  
5   Address: <%= user.address %>  
6 </span>
```

Templates

```
3  · renderUser: function(user) {  
4  ·    · var $container = $('#container');  
5  ·  
6  ·    · $container.html( JST.User(user) );  
7  ·  
8  · }
```

Templates

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Templates

- Underscore, jade, mustache, handlebars, dust...

Templates

- Underscore, jade, mustache, handlebars, dust...
- Precompiling

Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage: Modules, MVC, templates, build tools

How to get here:

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Build Tools

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Build Tools

- Housekeeping tasks

Build Tools

- Housekeeping tasks
- Grunt.js

Build Tools

- Housekeeping tasks
- Grunt.js
 - Task based

Build Tools

- Housekeeping tasks
- Grunt.js
 - Task based
 - node.js

Build Tools

- Housekeeping tasks
- Grunt.js
 - Task based
 - node.js
- 'sprockets-commonjs' gem

Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage: Modules, MVC, templates, build tools

How to get here:

When to level up:

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Type 4: Modules and MVC

Example: Big data dashboard

Tools it might leverage: Modules, MVC, templates, build tools

How to get here: One piece at a time!

When to level up:

Type 4: Modules and MVC

Example:

Big data dashboard

Tools it might leverage:

Modules, MVC, templates, build tools

How to get here:

One piece at a time!

When to level up:

Something crazy like meteor.js

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Overview

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Overview

1. No Javascript

Overview

1. No Javascript

2. Libraries

Overview

1. No Javascript
2. Libraries
3. `$(document).ready`

Overview

1. No Javascript
2. Libraries
3. `$(document).ready`
4. Object based

Overview

1. No Javascript
2. Libraries
3. `$(document).ready`
4. Object based
5. MVC, Modules

Overview

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Overview

- Rightsized apps are OK

Overview

- Rightsized apps are OK
- Don't always start big, but think about it

Overview

- Rightsized apps are OK
- Don't always start big, but think about it
- Know when to level up

Thanks!

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- Quick Left, Boulder, we're hiring

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