

Theming with the WordPress API

in the newsroom

Using AngularJS and more



twitter.com/chrishutchinson



github.com/chrishutchinson/themeconf

Developing with the WordPress API

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Context: Developing in the newsroom

- Telling the best story
- Giving freedom to journalists
- Working to short deadlines

Architecture

WordPress
+
REST API

Frontend framework
AngularJS / React / EmberJS

~~What is the WordPress REST API?~~

Wait! What is a REST API?

A simple system using basic HTTP commands to create, read, update and delete (CRUD) data.

GET: Get data (GET api/post/1)

POST: Create data (POST api/post + {data})

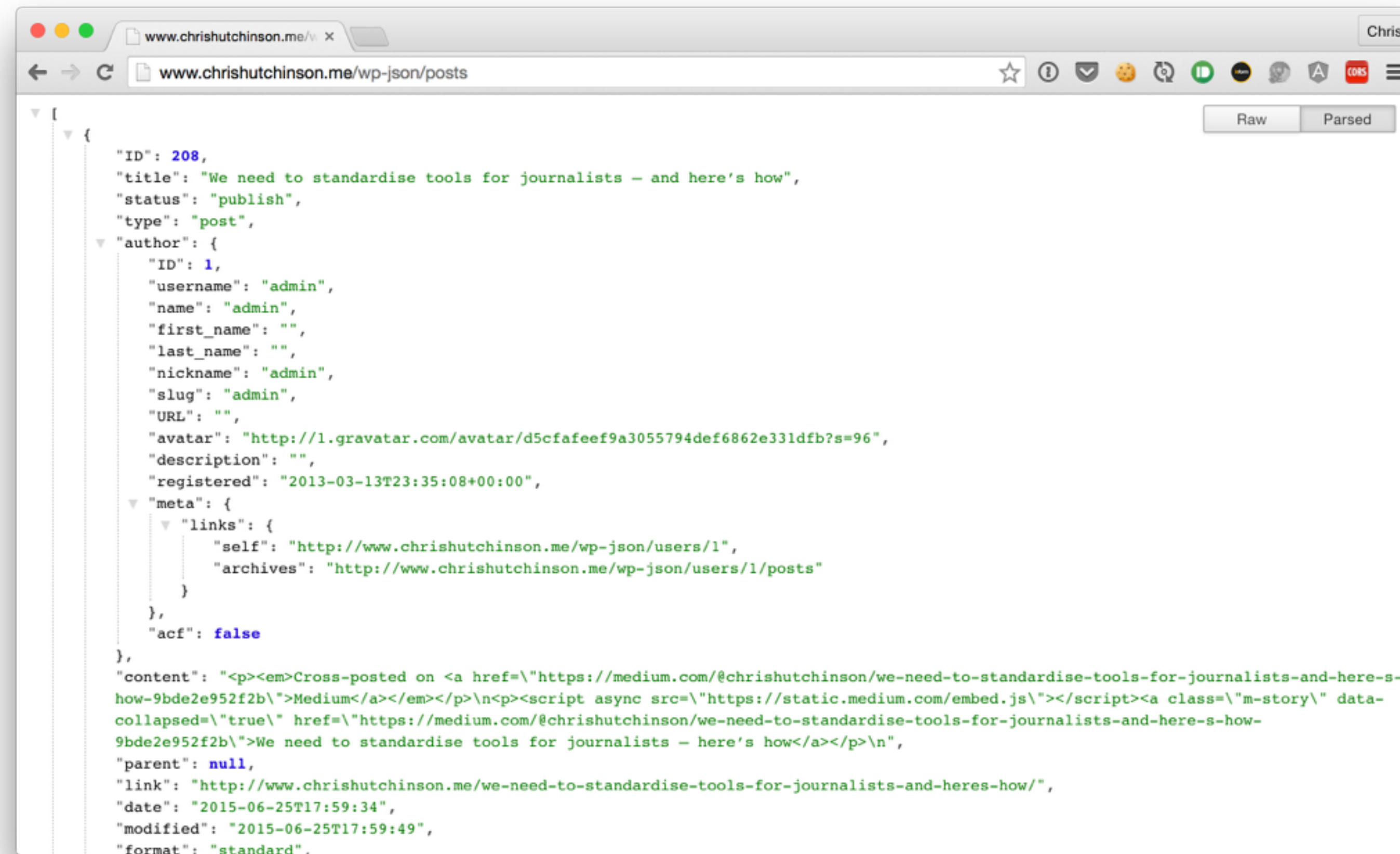
PUT: Update data (PUT api/post/1 + {data})

DELETE: Delete data (DELETE api/post/1)

What is the WordPress REST API?

1. A open source library, and free plugin - search “WP-API” (or check out github.com/wp-api)
2. A simple way to build new sites and applications around your existing WordPress installation
3. The next WordPress revolution

What is the WordPress REST API?



A screenshot of a web browser window displaying the WordPress REST API endpoint `www.chrishutchinson.me/wp-json/posts`. The browser's address bar shows the URL, and the page content displays a JSON response for a specific post. The JSON object includes fields for `ID`, `title`, `status`, `type`, `author`, `meta`, `content`, `parent`, `link`, `date`, `modified`, and `format`. The `author` field is expanded, showing details for the user with ID 1, including `username`, `name`, `first_name`, `last_name`, `nickname`, `slug`, `URL`, `avatar`, `description`, and `registered`. The `meta` field is also expanded, showing a `links` object with `self` and `archives` URLs. The `content` field contains HTML markup for a paragraph and a Medium embed. The `parent` field is `null`, and the `link` field points to the post's permalink. The `date` and `modified` fields show timestamps, and the `format` field is `standard`.

```
{
  "ID": 208,
  "title": "We need to standardise tools for journalists – and here's how",
  "status": "publish",
  "type": "post",
  "author": {
    "ID": 1,
    "username": "admin",
    "name": "admin",
    "first_name": "",
    "last_name": "",
    "nickname": "admin",
    "slug": "admin",
    "URL": "",
    "avatar": "http://1.gravatar.com/avatar/d5cfafeef9a3055794def6862e331dfb?s=96",
    "description": "",
    "registered": "2013-03-13T23:35:08+00:00",
    "meta": {
      "links": {
        "self": "http://www.chrishutchinson.me/wp-json/users/1",
        "archives": "http://www.chrishutchinson.me/wp-json/users/1/posts"
      }
    },
    "acf": false
  },
  "content": "<p><em>Cross-posted on <a href='\"https://medium.com/@chrishutchinson/we-need-to-standardise-tools-for-journalists-and-here-s-how-9bde2e952f2b\">Medium</a></em></p>\n<p><script async src='\"https://static.medium.com/embed.js\"></script><a class='\"m-story\"\" data-collapsed='\"true\"\" href='\"https://medium.com/@chrishutchinson/we-need-to-standardise-tools-for-journalists-and-here-s-how-9bde2e952f2b\">We need to standardise tools for journalists – here's how</a></p>\n",
  "parent": null,
  "link": "http://www.chrishutchinson.me/we-need-to-standardise-tools-for-journalists-and-heres-how/",
  "date": "2015-06-25T17:59:34",
  "modified": "2015-06-25T17:59:49",
  "format": "standard",
}
```

Why REST?

- Scalable
- Cacheable
- Standardised
- Separation of concerns

No more code

```
<div id="primary">
  <div id="content" role="main">

    <?php while ( have_posts() ) : the_post(); ?>

      <h1><?php the_field('custom_title'); ?></h1>


      <p><?php the_content(); ?></p>

    <?php endwhile; // end of the loop. ?>

  </div><!-- #content -->
</div><!-- #primary -->
```

Frontend developers
can do more 🙌

You can make  ,  , or 
apps using the same API

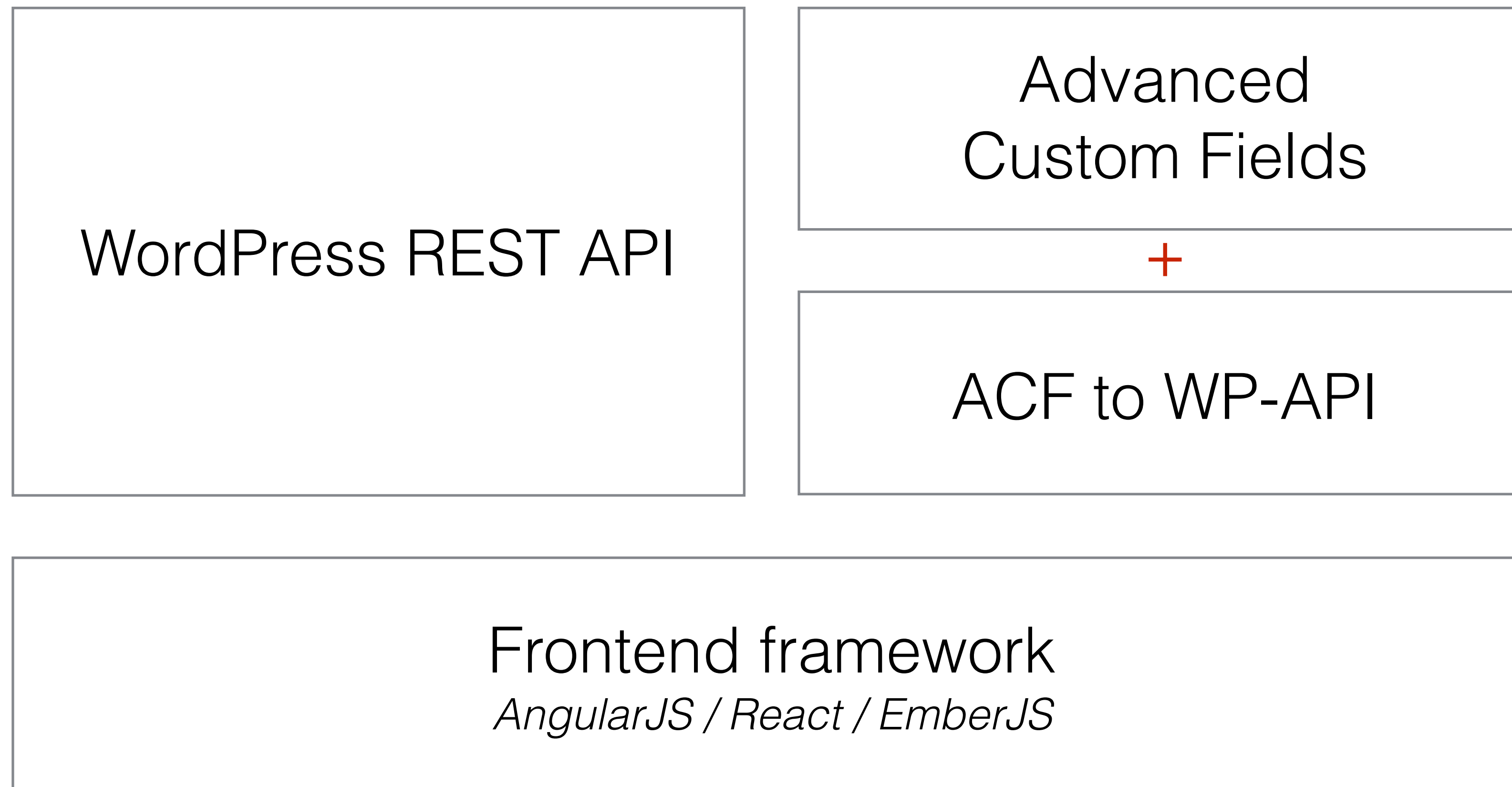
It's really, really,
quick to develop with 

Better Architecture

WordPress REST API

Frontend framework
AngularJS / React / EmberJS

Better Architecture



Better Architecture

THE REALLY POWERFUL BIT

WordPress REST API

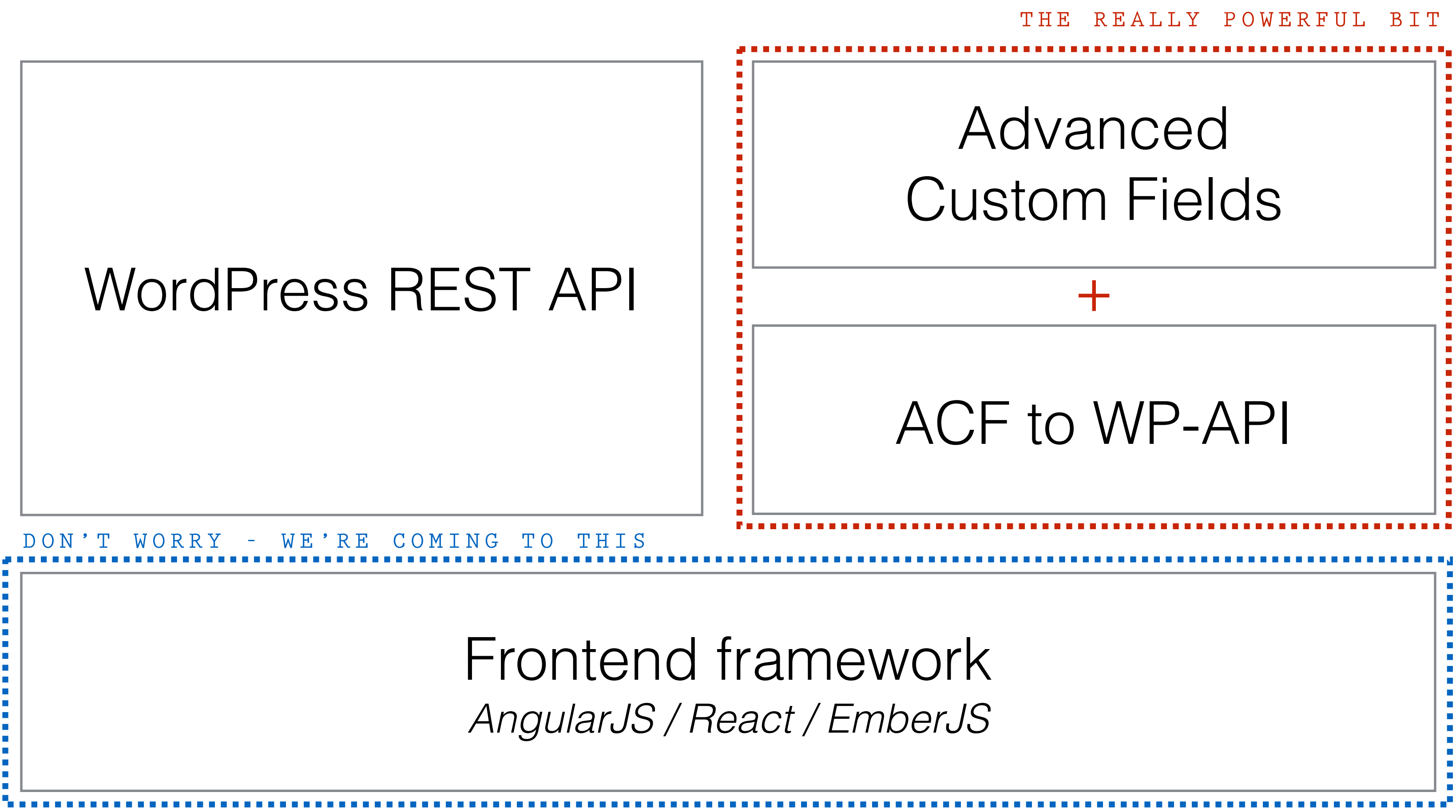
Advanced
Custom Fields

+

ACF to WP-API

Frontend framework
AngularJS / React / EmberJS

Better Architecture



THE REALLY POWERFUL BIT

Advanced Custom Fields

Add visual controls for extra data stored against posts, pages, custom post types, taxonomies, and pretty much anything else.

+

ACF to WP-API

Takes all of that extra data from ACF, and pushes it through to the WordPress API

THE REALLY POWERFUL BIT

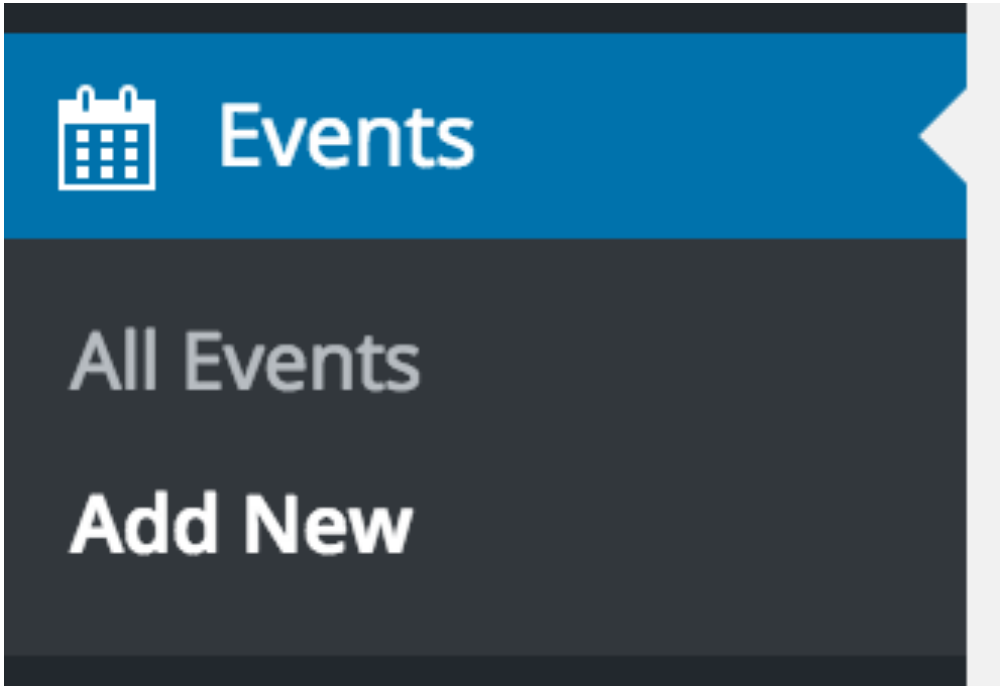
```
[{"ID": 199, "title": "CardKit", "content": "<p>A simple, open-source, configurable, web based image creation tool aimed at newsrooms, built whilst at The Times and Sunday Times.</p>\n<p>CardKit is aimed at newsrooms, however has many potential uses that extend beyond that:</p>\n<ul>\n<li>Coupon and offer images</li>\n<li>Templated asset generation</li>\n<li>Educational assets</li>\n<li>Video preview images (e.g. 16:9)</li>\n<li>Marketing and promotion</li>\n<li>Personal branding</li>\n</ul>\n", "acf": {"url": "https://times.github.io/cardkit", "has_repo": true, "repo_url": "https://github.com/times/cardkit", "repo_type": "github"}, "featured_image": {"ID": 201, "title": "cardkitfeatured", "status": "inherit", "type": "attachment", "author": {"ID": 1, "username": "admin", "name": "admin", "first_name": "", "last_name": "", "nickname": "admin", "slug": "admin", "URL": "", "avatar": "http://1.gravatar.com/avatar/d5cfafeef9a3055794def6862e331dfb?s=96", "description": "", "registered": "2013-03-13T23:35:08+00:00", "meta": {"links": {"self": "http://www.chrishutchinson.me/wp-json/users/1", "archives": "http://www.chrishutchinson.me/wp-json/users/1/posts"}}, "acf": false}}
```

AngularJS

```
angular.module('times.wordpressAPI')  
  .factory('wpAPIResource', ['$resource', function ($resource) {  
    return $resource(  
      'http://your.wordpress.site/wp-json/:param1/:param2/:param3/:param4/:param5/:param6/:param7/'  
    );  
  }]);
```

A very simple AngularJS
service, that allows you to
interact with the WordPress API

Example: Events



Custom post
type

A screenshot of the 'Event Fields' configuration form in WordPress. The form is titled 'Event Fields' and has a collapse arrow. It contains three sections: 'Dates', 'Location', and 'Contact Email'. The 'Dates' section has a table with two rows of dates: '11/09/2015' and '27/09/2015', with an 'Add Date' button. The 'Location' section has a text field with 'Conference Room'. The 'Contact Email' section has a text field with 'chris.hutchinson@thetimes.co.uk'.

Advanced Custom Fields
configuration

Example: Events

```
$scope.eventData = {  
  param1: 'posts',  
  param2: $stateParams.id,  
  type: 'event'  
};
```

1. Find posts by type `event`
2. Filter by id
3. Store in \$scope.eventData


```
<div class="panel panel-primary">
  <div class="panel-heading">
    <strong>Date<span ng-show="result.acf.dates.length > 1">s</span></strong>
  </div>
  <div class="panel-body">
    <ul>
      <li ng-repeat="date in result.acf.dates">
        {{date.date | date:'longDate'}}
      </li>
    </ul>
  </div>
</div>

<div class="panel panel-default">
  <div class="panel-heading"><strong>Location</strong></div>
  <div class="panel-body">
    <p>{{result.acf.location}}</p>
  </div>
</div>

<div class="panel panel-default">
  <div class="panel-heading"><strong>Contact Email</strong></div>
  <div class="panel-body">
    <p>{{result.acf.contact_email}}</p>
  </div>
</div>
```

Dates

- September 11, 2015
- September 13, 2015

Location

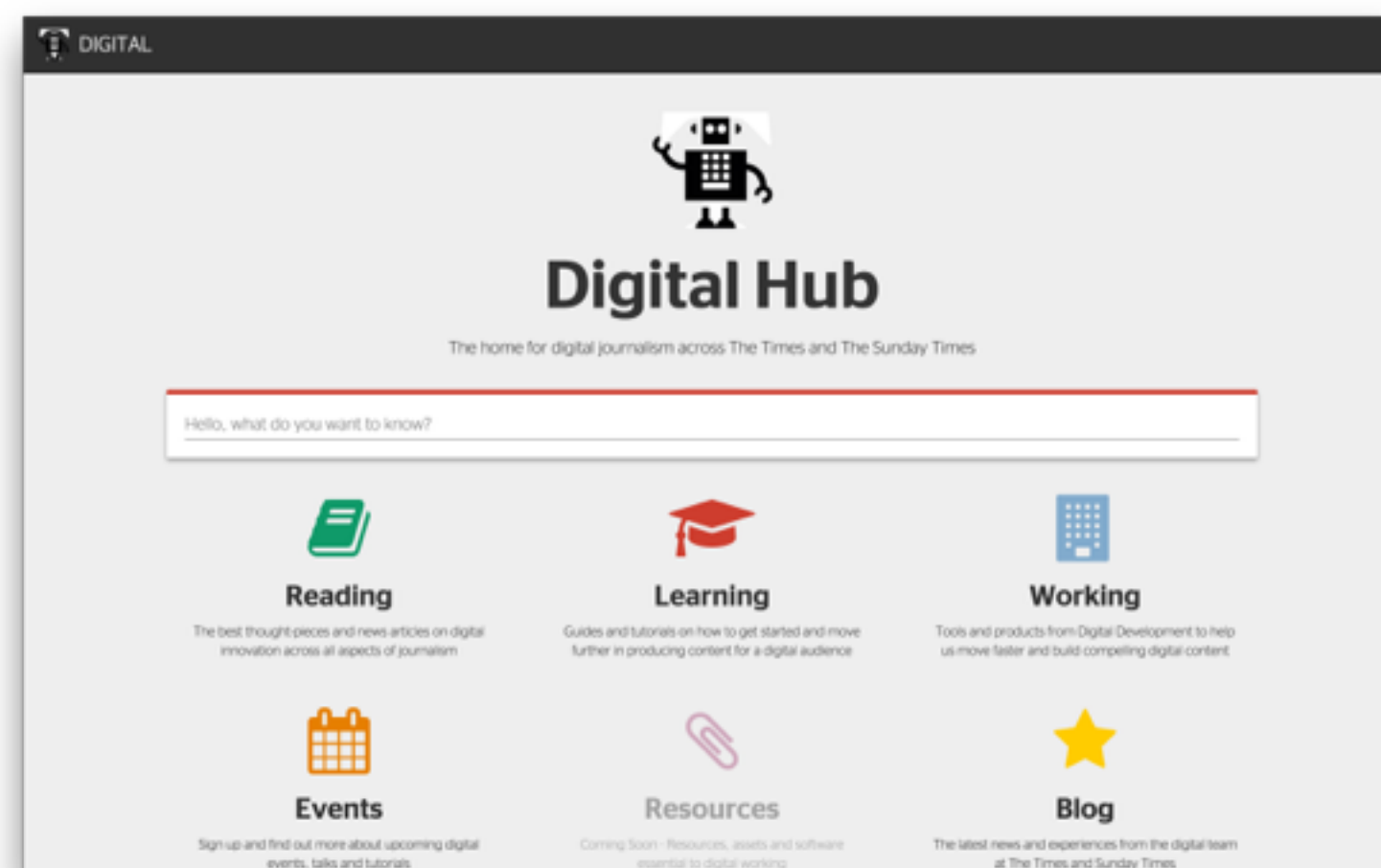
Conference Room

Contact Email

chris.hutchinson@thetimes.co.uk

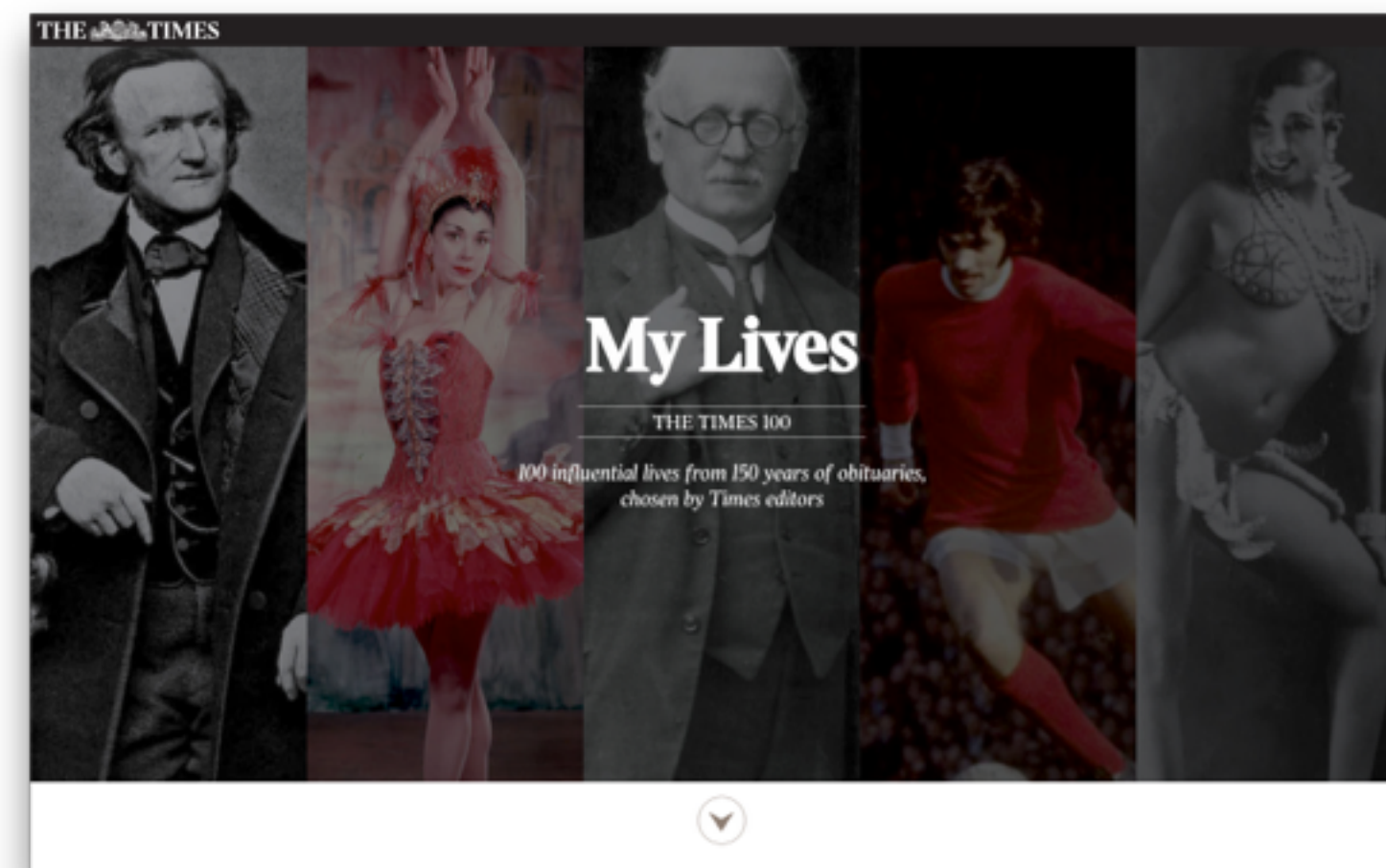
1. Loop over the dates (ng-repeat)
2. Show the location
3. Show contact details

Here's some I made earlier



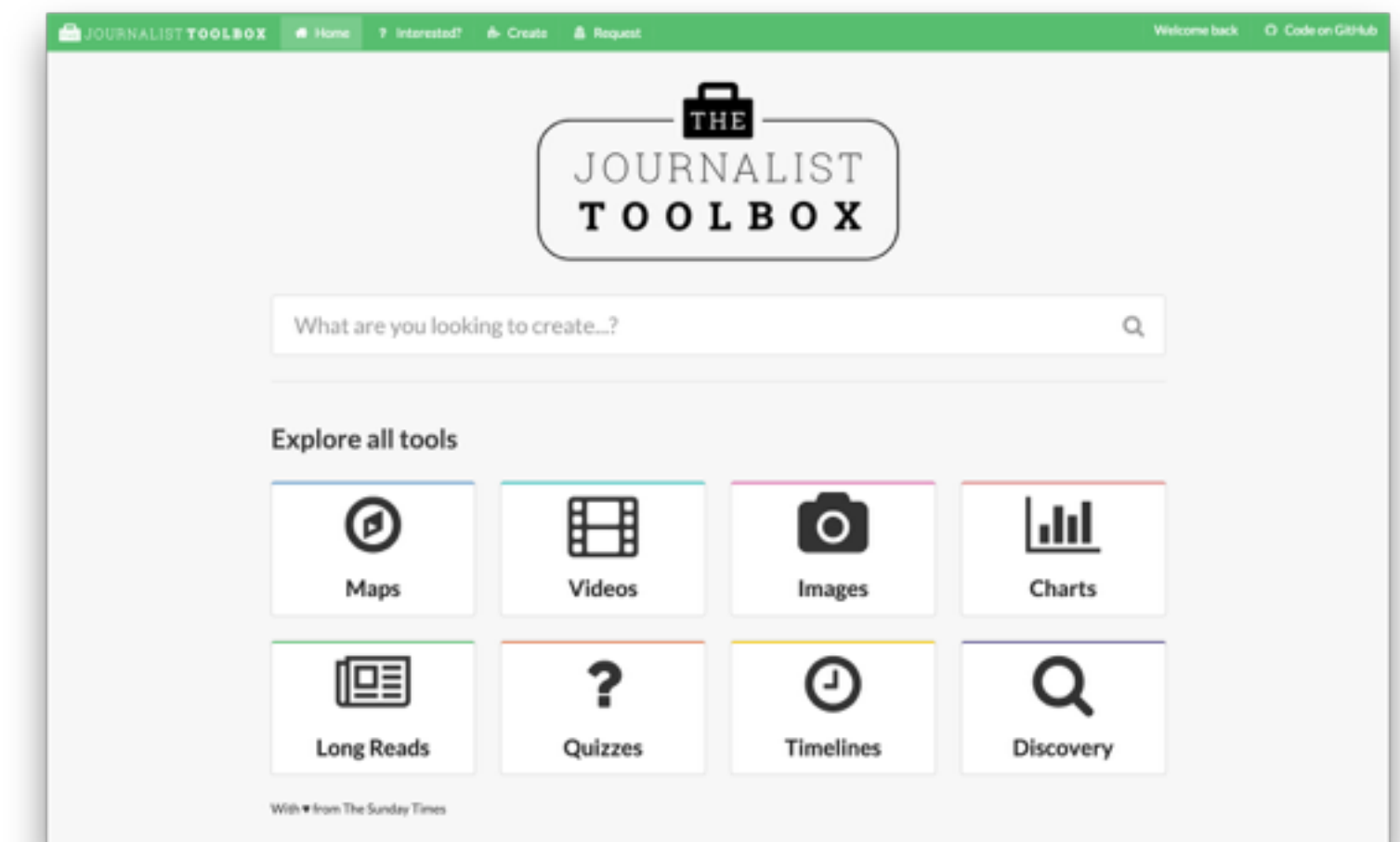
The Times and Sunday Times “Digital Hub”

AngularJS



My Lives - 100 obituaries from the archives

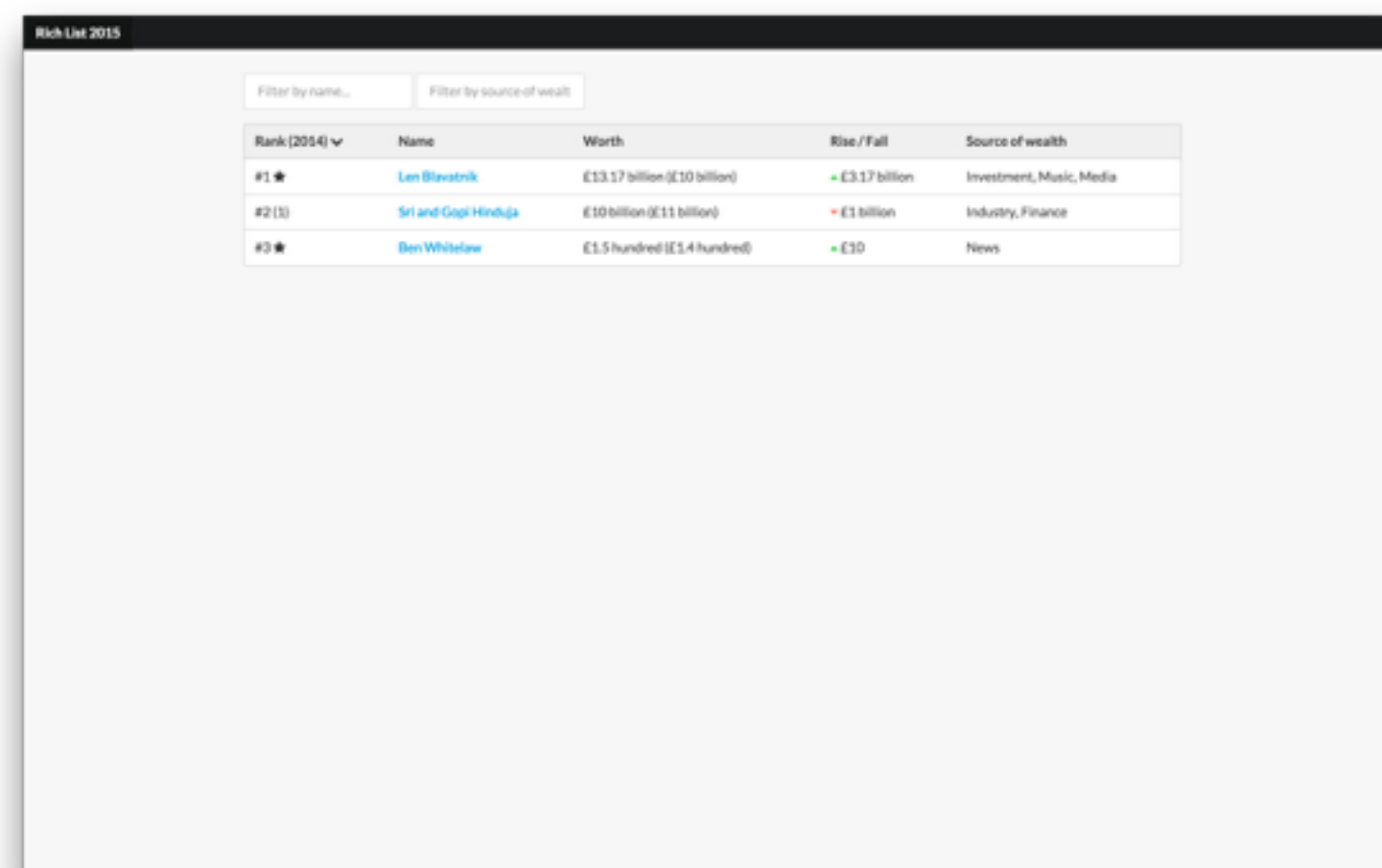
AngularJS



The Journalist Toolbox

AngularJS

But wait, there's more



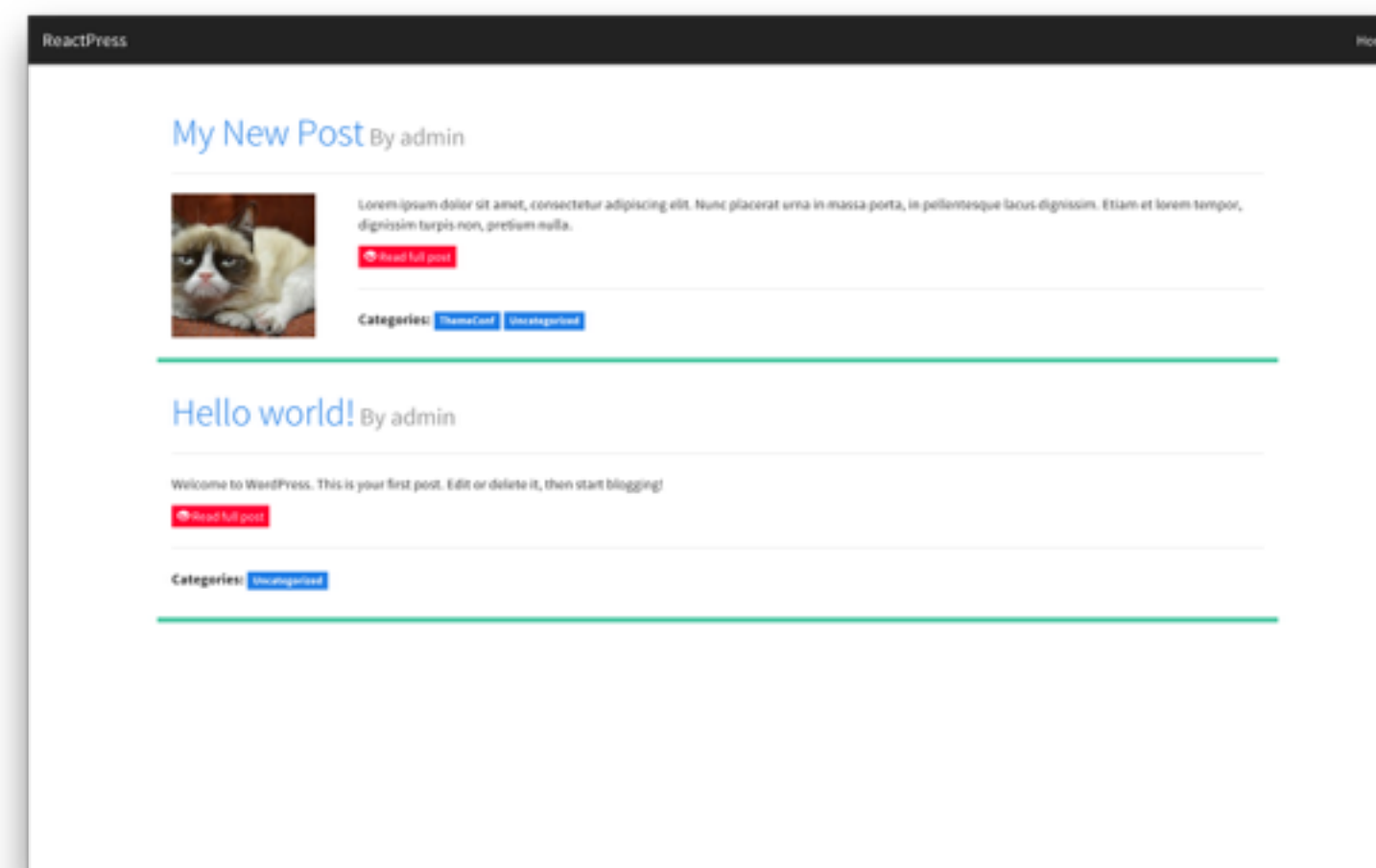
Rich List 2015

Filter by name... Filter by source of wealth

Rank (2014) ▼	Name	Worth	Rise / Fall	Source of wealth
#1 ★	Len Blavatnik	£13.17 billion (£10 billion)	▲ £3.17 billion	Investment, Music, Media
#2 (3)	Sri and Gopi Hinduja	£10 billion (£11 billion)	▼ £1 billion	Industry, Finance
#3 ★	Ben Whitehead	£1.5 hundred (£1.4 hundred)	▲ £30	News

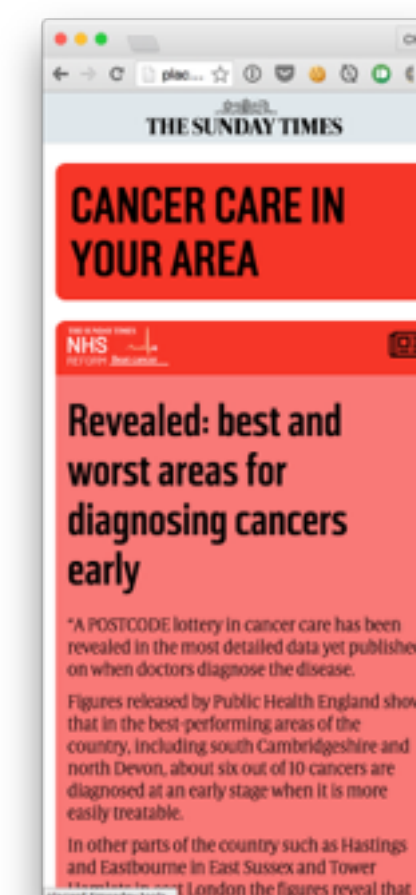
The Sunday Times
Rich List

AngularJS (ES2015)



ReactPress

ReactJS



Placard

AngularJS

Re-using our data to build better stories

THE  TIMES


Formula One

News | Opinion | Business | Money | Sport | Life | Arts | Puzzles | Papers | Irish news

Lewis Hamilton sets sights on fast start after taking pole position in Belgium

Article

Kevin Eason's postcard from Spa



Kevin Eason Motor Racing Correspondent, Spa-Francorchamps

Last updated at 10:35AM, August 22 2015

They will line up alongside each other yet again but this time Lewis Hamilton and Nico Rosberg will be aware that they have form on the awesome Spa circuit.

1 of 2

Hamilton will start ahead of his team-mate Rosberg (left) Dan Istitene

GET /richlist/wp-json/posts?filter[name]=lewis-hamilton

```
{
  "name": "Lewis Hamilton",
  "content": "<p>Hamilton has made a dream start in his attempt to become only the second
  "acf": {
    "2014_rank": "1",
    "2015_worth": "88000000",
    "2014_worth": "68000000",
    "source_of_wealth": "Motor Racing",
    "new_entry": false
  }
}
```

RICH LIST 2015

Lewis Hamilton



2015 Rank: 1

Wealth: £88m

Source of wealth: Motor racing ▲£20m

Hamilton has made a dream start in his attempt to become only the second British driver after Jackie Stewart to win three Formula One world drivers' titles and emulate the legendary Brazilian, Ayrton Senna. The 30-year-old from Stevenage has already won more grands prix than any other Briton. His victory in Bahrain this month takes his tally to 36.

He first won the F1 title in 2008 for McLaren. Hamilton was identified as a future champion by McLaren after telling team principal Ron Dennis (qv) he would one day drive for him. He was 10 at the time.

“Hey Chris, when will the
REST API be in core?”

- Who knows?
- But! The more you start using it
now, the better prepared you'll be
when it does

What should we do now?

Back to the newsroom

- Telling the best story
- Giving freedom to journalists
- Working to short deadlines

A few helpful hints




Postman




Yeoman

Question



This presentation and all demonstration code can be found at  github.com/chrishutchinson/themeconf

My initial post about this topic - “My WordPress Renaissance” - was originally published in January 2015, and can be found at medium.com/digital-times

You can  tweet me any further questions at twitter.com/chrishutchinson or come and find me after this talk