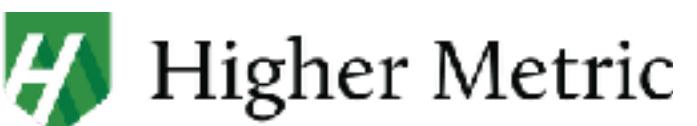


# *Using the* **WORDPRESS REST API** *to power campus communication*

---

John Gough | @john\_gough  
Cory Crowley | @corycrowley



```
1  <script>
2  function receiveData( data ) {
3      // Do something with the data here.
4      // For demonstration purposes, we'll simply log it.
5      console.log( data );
6  }
7  </script>
8  <script src="https://demo.wp-api.org/wp-json/?_jsonp=receiveData"
```

# How content on campus is managed:



# **How content on campus is managed:**

**Siloed content  
Fragmented  
Multiple owners  
Governance issues**

# Instead, why not use a system that...

**Siloed access**  
**Single source of truth**



Posts < Higher Metric

Secure | https://highermetric.com/

Content Calendar Conferences

Higher Metric 6

WP Engine

Dashboard

Jupiter

**Posts**

All Posts

Add New

Categories

Tags

Media

Forms

Pages

Comments

Appearance

Plugins 3

Users

Tools

Visual Composer

Settings

Clients

Animated Columns

university.highermetric.com/wp-admin/edit.php?post\_type=page&action=edit&post=100

uni Insights – Higher Metric

Secure | https://highermetric.com/insights/

Content Calendar Conferences

Personalized digital communications for Higher Ed

**H** Higher Metric

HOME SERVICES TEAM INSIGHTS CONTACT

INSIGHTS FOR DIGITAL MARKETING IN HIGHER EDUCATION

**The death of “Dear Student” – Personalization in Higher Ed Enrollment Marketing**

*Posted by Dallin Harris in July 2017*

Top colleges are finding that marketing personalization is key to unlocking more tours, more applications, and more deposits. In a 2016 study about marketing personalization, Accenture found that 65% of people are more likely to make a purchase if a brand shows them relevant information based on past activity. The exciting part is: we've now reached a point where the long-awaited dream of personalized marketing at scale is finally both possible and practical, even for small [...]

**READ MORE**

**Don't Let Perfection Keep You From Launching**

*Posted by John Gough in July 2017*

If your site passes these four tests, you're ready to launch. They say you can't let perfect be the enemy of good, and that's absolutely true. If you're launching a website, you want to make sure it's as good as it can be, but you also don't want to let the desire for perfection hold you back from launching.

"/wp/v2/event-location/(?P<id>[\d]+)": { ... }, // 3 items

"/wp/v2/event-category": { ... }, // 4 items

"/wp/v2/event-category/(?P<id>[\d]+)": { ... }, // 3 items

"/wp/v2/users": { ... }, // 4 items

# WP REST API as MVC



**Model**

WP Database



**Controller**

REST API



**View**

Front-end

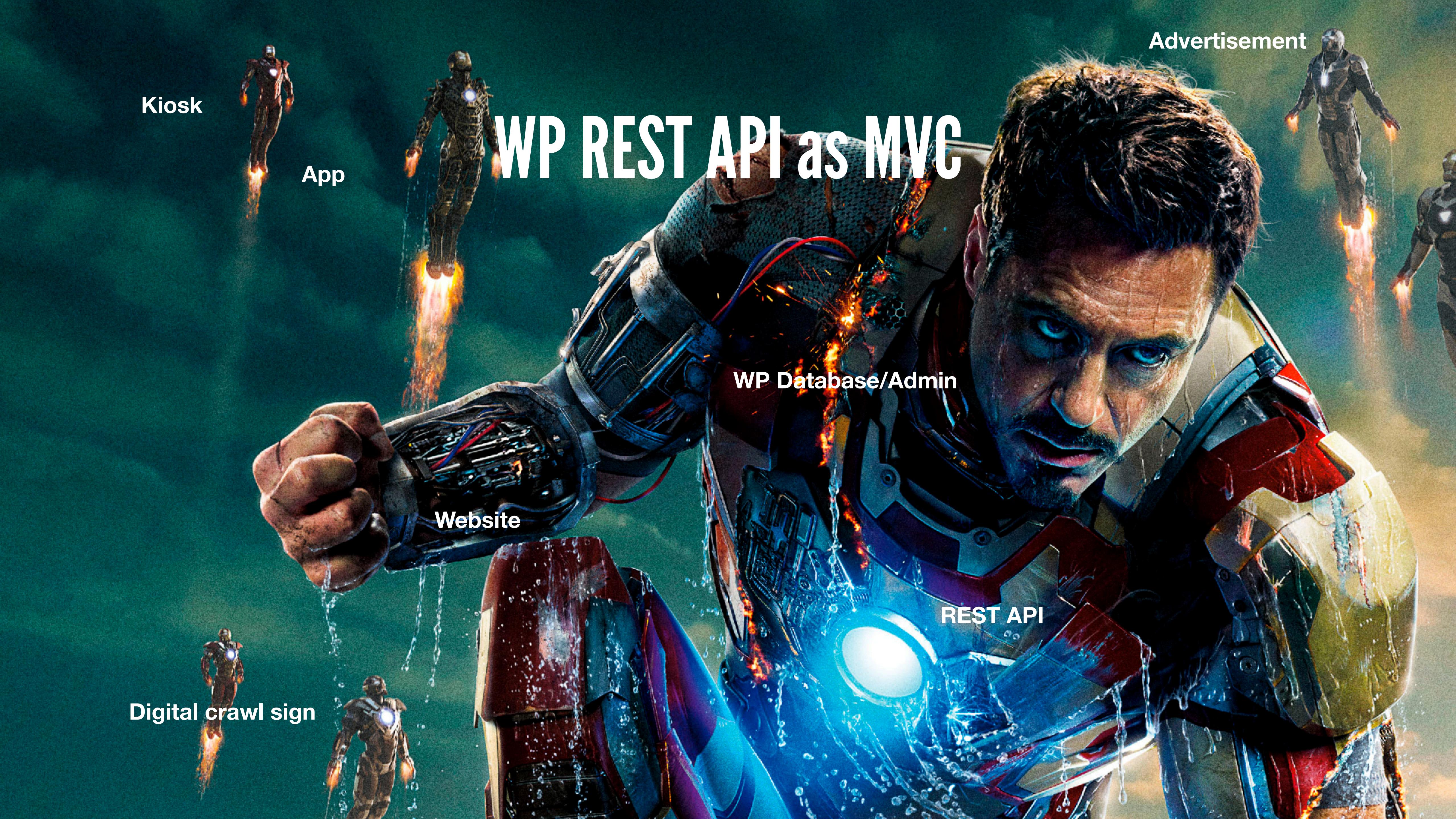
# WP REST API as MVC

AND IRON MAN



JARVIS is the Controller





Advertisement

Kiosk

App

# WP REST API as MVC

WP Database/Admin

Website

REST API

Digital crawl sign

## USE CASE: EVENTS

# What do we need to show?

- Title
- Date
- Duration
- Category
- Presenter(s)
  - Name
  - Link
- Location
  - Address
  - Building name
  - Room number
  - Google map link
  - Number in a series
- Description
  - Long
  - Short
- Primary contact
- Registration
- Cost
- Link

And any other data or metadata you want to include...



The image shows a mobile browser window with a white header bar containing three circular icons. The main content area has a dark grey header with 'HM University' on the left and a 'Menu' button with a three-line icon on the right. Below this is a white section titled 'Upcoming Events' in large, bold, dark grey font. This section contains six event cards arranged in two rows of three. Each card has a light grey background and features a title, a date icon, and the date 'July 19'. The events are:

Event Title	Date
Best Lecture Series: Awesome Lecture	July 19
Best Lecture Series: Dawn of Time 2	July 19
Jim Davis: American Hero	July 19
Wurst Lecture Series: Apocalypse	July 19
Common Ground	July 19
Best Lecture Series: Dawn of Time	July 19



## More info about HMU

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Donec id elit non mi porta gravida at

Events < HM University — WordPress

Guest

← → ⌂ ⓘ university.highermetric.com/wp-admin/edit.php?post\_type=event

HM University 0 + New

Howdy, Higher Metric [Profile]

WP Engine Dashboard Posts Media

Events Add New

All (10) | Published (10)

Bulk Actions Apply

All dates Locations Categories Start Date End Date Filter Reset sorting

Pages Normal Content Type 10 items

Comments Title

Events Custom Post Type

	Title	Location	Category	Start Date	End Date
<input type="checkbox"/>	Welcome Address for Students & Family	Harris Center, University	Lecture Series, Orientation	July 17, 2017	July 17, 2017
<input type="checkbox"/>	City Excursions	South Lawn, University	Orientation	July 18, 2017	July 18, 2017
<input type="checkbox"/>	Telescopes 101	Harris Center	Lecture Series, Orientation	July 18, 2017	July 18, 2017
<input type="checkbox"/>	Best Lecture Series: Dawn of Time	Harris Center, Main Auditorium	Lecture Series, Student Ambassadors	July 19, 2017	July 19, 2017

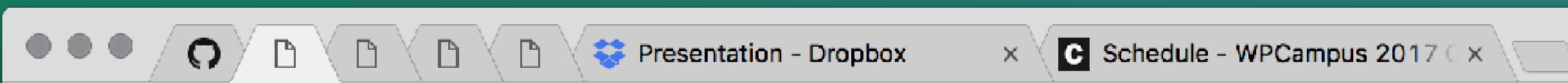
All Events Add New Location Category

Appearance Plugins Users Tools Settings Custom Fields Collapse menu



```
19 */**  
20 * Register Event Post Type.  
21 *  
22 * @since 1.0.0  
23 */  
24 function hm_university_register_event_post_type() {  
25     register_post_type( 'event', array(  
26         'labels'          => array( ...  
40         ),  
41         'public'           => true,  
42         'hierarchical'    => false,  
43         'show_ui'          => true,  
44         'show_in_nav_menus' => true,  
45         'supports'         => array( 'title', 'editor' ),  
46         'has_archive'      => false,  
47         'rewrite'          => array( 'slug' => 'events' ),  
48         'query_var'        => true,  
49         'menu_icon'         => 'dashicons-calendar-alt',  
50         'show_in_rest'      => true,  
51         'rest_base'         => 'events',  
52         'rest_controller_class' => 'WP_REST_Posts_Controller',  
53     ) );  
54 }
```





Cory - Skyhook

[university.highermetric.com/wp-admin/post.php?post=35&action=edit](http://university.highermetric.com/wp-admin/post.php?post=35&action=edit)

HM University 0 + New

Howdy, Higher Metric

## Edit Field Group

[Add New](#)

## Event Data

Order	Label	Name	Type
1	Date / Time		Tab
2	Event: Start Date	event_start_date	Date Picker
3	Event: Start Time	event_start_time	Time Picker
4	Event: End Date	event_end_date	Date Picker
5	Event: End Time	event_end_time	Time Picker
6	Presenter		Tab
7	Presenters Name	presenters_name	Text
8	Presenters Link	presenters_link	Text

[+ Add Field](#)

## Publish

Status: Active

Published on: Jul 11, 2017 @ 16:19

[Move to Trash](#)[Update](#)

```
88  
89 //**  
90 * Event Category - Taxonomy  
91 *  
92 * @since 1.0.0  
93 */  
94 function hm_university_register_event_category_taxonomy() {  
95     $labels = array( ...  
107 );  
108  
109     $args = array(  
110         'hierarchical'      => true,  
111         'labels'            => $labels,  
112         'show_ui'           => true,  
113         'show_admin_column' => true,  
114         'query_var'         => true,  
115         'rewrite'           => array( 'slug' => 'event-category' ),  
116         'show_in_rest'       => true,  
117     );  
118  
119     register_taxonomy( 'event-category', array( 'event' ), $args );  
120 }
```



```
56 /**
57 * Event Location - Taxonomy
58 *
59 * @since 1.0.0
60 */
61 function hm_university_register_event_location_taxonomy() {
62     $labels = array( ... );
63
64 }
65
66
67
68
69
70
71
72
73
74
75
76     $args = array(
77         'hierarchical'      => true,
78         'labels'            => $labels,
79         'show_ui'           => true,
80         'show_admin_column' => true,
81         'query_var'         => true,
82         'rewrite'           => array( 'slug' => 'event-location' ),
83         'show_in_rest'       => true,
84     );
85
86     register_taxonomy( 'event-location', array( 'event' ), $args );
87 }
```



Edit Event < HM University —

Guest

← → ⌂ ⓘ university.highermetric.com/wp-admin/post.php?post=42&action=edit

HM University 0 + New View Event Howdy, Higher Metric

WP Engine Dashboard Posts Media Pages Comments Events All Events Add New Location Category Appearance Plugins Users Tools Settings Custom Fields Collapse menu

Screen Options ▾

## Edit Event [Add New](#)

### Time to HMU: Past, Present, & Future

title

Permalink: <http://university.highermetric.com/events/time-to-hmu-past-present-future/> [Edit](#)

**Event Data**

Date / Time **Presenter** **presenter fields**

**Event: Start Date** **date**  
July 17, 2017

**Event: Start Time** **time**  
5:00 pm

**Event: End Date**  
July 17, 2017

**Event: End Time**  
6:00 pm

Add Media Visual Text

Paragraph **B** **I**

**body**

Maecenas faucibus mollis interdum. Maecenas sed diam eget risus varius blandit sit amet non magna. Morbi leo risus, porta ac consectetur ac, vestibulum at eros. Etiam porta sem malesuada magna mollis euismod. Duis mollis, est non commodo luctus, nisi erat porttitor ligula, eget lacinia odio sem nec elit. Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor.

**Location** **location**

All Locations **Most Used**

University  
 Old Main  
 Harris Center  
 Main Auditorium  
 Room 1544  
 Room 1984  
 Theisen Telescope  
 East

[+ Add New Location](#)

**Category** **category**

All Categories **Most Used**

Orientation  
 Lecture Series  
 Sports



```
50     wp_reset_query(); wp_reset_postdata(); return;
51 }
52 ?>
53 <div class="events-section section">
54     <?php if ( $title ) { ?>
55         <h2 class="section-title"><?php echo esc_attr( $title ); ?></h2>
56     <?php } ?>
57
58 <div class="events clearfix">
59     <?php while ( $events_query->have_posts() ) { $events_query->the_post();
60         $event_start_date = get_field( 'event_start_date' );
61         $event_start_date_formatted = date( 'F j', strtotime( $event_start_date ) );
62     ?>
63     <a class="event" href="<?php the_permalink(); ?>">
Title          <h3 class="event-title"><span class="event-title-inner"><?php the_title(); ?></span></h3>
64         <span class="event-date">
65             <i class="fa fa-calendar" aria-hidden="true"></i>
Date          <span class="event-date-text"><?php echo esc_attr( $event_start_date_formatted ); ?></span>
66         </span>
67     </a>
68
69     <?php } wp_reset_query(); wp_reset_postdata(); ?>
70
71     </div>
72 </div>
```



The image shows a mobile browser window with a white header bar containing three circular icons. The main content area has a dark grey header with 'HM University' on the left and a 'Menu' button with a three-line icon on the right. Below this is a white section titled 'Upcoming Events' in large, bold, dark grey font. The content is organized into a grid of six items:

Event Title	Date
Best Lecture Series: Awesome Lecture	📅 July 19
Wurst Lecture Series: Apocalypse	📅 July 19
Best Lecture Series: Dawn of Time 2	📅 July 19
Common Ground	📅 July 19
Jim Davis: American Hero	📅 July 19
Best Lecture Series: Dawn of Time	📅 July 19



## More info about HMU

Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Donec id elit non mi porta gravida at

# Kiosk App

SATURDAY, JULY 15

Today's Weather:  Sunny and 74 degrees

WELCOME TO THE HARRIS CENTER

## Interactive Building Map



## Recently published research



The Amazing  
Hubble



Radio Astronomy



Space The Final  
Frontier



How To Look Up

## Today's Events

### Behst Lecture Series: Dawn of Time

 10:00am |  Main Auditorium

### Welcome Address for Students & Family

 12pm |  Room 1544

### Common Ground

 12:30pm |  Main Auditorium

### Telescopes 101

 12:30pm |  Theisen Telescope - East

### Wurst Lecture Series: Apocolypse

 6pm |  Main Auditorium

### Jim Davis: American Hero

 6pm |  Room 1984



```
-->

19 <-- /**
20  * Register Event Post Type.
21 *
22 * @since 1.0.0
23 */
24 <-- function hm_university_register_event_post_type() {
25     register_post_type( 'event', array(
26         'labels'          => array( ... ),
27         'public'          => true,
28         'hierarchical'    => false,
29         'show_ui'          => true,
30         'show_in_nav_menus' => true,
31         'supports'         => array( 'title', 'editor' ),
32         'has_archive'       => false,
33         'rewrite'          => array( 'slug' => 'events' ),
34         'query_var'         => true,
35         'menu_icon'         => 'dashicons-calendar-alt',
36         'show_in_rest'       => true,
37         'rest_base'          => 'events',
38         'rest_controller_class' => 'WP_REST_Posts_Controller',
39     ) );
40 }
41 }
```



```
< > events.php x
88
89 //**
90 * Event Category - Taxonomy
91 *
92 * @since 1.0.0
93 */
94 function hm_university_register_event_category_taxonomy() {
95     $labels = array( ... )
96
97 }
98
99
100
101
102
103
104
105
106
107
108
109     $args = array(
110         'hierarchical'      => true,
111         'labels'            => $labels,
112         'show_ui'           => true,
113         'show_admin_column' => true,
114         'query_var'         => true,
115         'rewrite'           => array( 'slug' => 'event-category' ),
116         'show_in_rest'       => true,
117     );
118
119     register_taxonomy( 'event-category', array( 'event' ), $args );
120 }
```



```
56 /**
57  * Event Location - Taxonomy
58 *
59 * @since 1.0.0
60 */
61 function hm_university_register_event_location_taxonomy() {
62     $labels = array( ...  
74 );
75
76     $args = array(
77         'hierarchical'      => true,
78         'labels'            => $labels,
79         'show_ui'           => true,
80         'show_admin_column' => true,
81         'query_var'         => true,
82         'rewrite'           => array( 'slug' => 'event-location' ),
83         'show_in_rest'       => true,  
84     );
85
86     register_taxonomy( 'event-location', array( 'event' ), $args );
87 }
```



Raw

Parsed

```
{  
    "namespace": "wp/v2",  
    "routes": {  
        "/wp/v2": { ... }, // 4 items  
        "/wp/v2/posts": { ... }, // 4 items  
        "/wp/v2/posts/(?P<id>[\d]+)": { ... }, // 3 items  
        "/wp/v2/posts/(?P<parent>[\d]+)/revisions": { ... }, // 3 items  
        "/wp/v2/posts/(?P<parent>[\d]+)/revisions/(?P<id>[\d]+)": { ... }, // 3 items  
        "/wp/v2/pages": { ... }, // 4 items  
        "/wp/v2/pages/(?P<id>[\d]+)": { ... }, // 3 items  
        "/wp/v2/pages/(?P<parent>[\d]+)/revisions": { ... }, // 3 items  
        "/wp/v2/pages/(?P<parent>[\d]+)/revisions/(?P<id>[\d]+)": { ... }, // 3 items  
        "/wp/v2/media": { ... }, // 4 items  
        "/wp/v2/media/(?P<id>[\d]+)": { ... }, // 3 items  
        "/wp/v2/events": { ... }, // 4 items  
        "/wp/v2/events/(?P<id>[\d]+)": { ... }, // 3 items
```

## Events

```
        "/wp/v2/types": { ... }, // 4 items  
        "/wp/v2/types/(?P<type>[\w-]+)": { ... }, // 3 items  
        "/wp/v2/statuses": { ... }, // 4 items  
        "/wp/v2/statuses/(?P<status>[\w-]+)": { ... }, // 3 items  
        "/wp/v2/taxonomies": { ... }, // 4 items  
        "/wp/v2/taxonomies/(?P<taxonomy>[\w-]+)": { ... }, // 3 items  
        "/wp/v2/categories": { ... }, // 4 items  
        "/wp/v2/categories/(?P<id>[\d]+)": { ... }, // 3 items  
        "/wp/v2/tags": { ... }, // 4 items  
        "/wp/v2/tags/(?P<id>[\d]+)": { ... }, // 3 items
```

## Location

```
        "/wp/v2/event-location": { ... }, // 4 items  
        "/wp/v2/event-location/(?P<id>[\d]+)": { ... }, // 3 items
```

## Category

```
        "/wp/v2/event-category": { ... }, // 4 items  
        "/wp/v2/event-category/(?P<id>[\d]+)": { ... }, // 3 items
```

```
        "/wp/v2/users": { ... }, // 4 items  
        "/wp/v2/users/(?P<id>[\d]+)": { ... }, // 3 items
```

Vue.js



Guide API Examples Ecosystem ▾ Translations ▾ Shop



# The Progressive JavaScript Framework

GET STARTED

GITHUB

## Approachable

Already know HTML, CSS and  
JavaScript? Read the guide and start  
building things in no time!

## Versatile

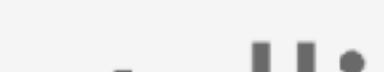
Simple, minimal core with an  
incrementally adoptable stack that  
can handle apps of any scale.

## Performant

20kb min+gzip Runtime  
Blazing Fast Virtual DOM  
Minimal Optimization Efforts



PROUDLY SPONSORED BY



< > app.js x

```
1 //**  
2 * App.js  
3 *  
4 * @since 1.0.0  
5 */  
6 (function() {  
Route    var eventsApiURL = '/wp-json/wp/v2/events/?_embed&per_page=10',  
8         postsApiUrl = '/wp-json/wp/v2/posts/?_embed&per_page=10';  
9  
10    new Vue({  
11        el: '#app',  
12        data: {
```

Location

```
13            eventLocation: '9', // Harris Center  
14            eventCategory: '',  
15            eventsCount: null,  
16            events: null,  
17            posts: null  
18        },  
19  
20        created: function() {  
21            this.fetchEventData();  
22            this.fetchPostData();  
23        },
```



## Get Events

```
< > app.js ✓
24
25    methods: {
26        fetchEventData: function() {
27            var xhr = new XMLHttpRequest();
28            var self = this;
29            var url = eventsApiURL;
30
31            if (self.eventLocation) {
32                url += '&event-location=' + self.eventLocation;
33            }
34
35            if (self.eventCategory) {
36                url += '&event-category=' + self.eventCategory;
37            }
38
39            xhr.open('GET', url)
40            xhr.onload = function() {
41                var events = JSON.parse(xhr.responseText);
42                for (i = 0; i < events.length; i++) {
43                    var locations = events[i]._embedded['wp:term'][0],
44                        categories = events[i]._embedded['wp:term'][1];
45
46                    if (locations[0]) {
47                        events[i].location = locations[0].name;
48                    }
49                }
50            }
51        }
52    }
53}
```



```
46
47    <div class="events">
48        <div class="event-wrapper clearfix">
49            <a v-for="event in events" class="event">
50                Title <h3 class="event-title"><div v-html="event.title.rendered"></div></h3>
51                <span class="event-meta">
52                    <span class="time">
53                        <i class="fa fa-clock-o" aria-hidden="true"></i>
54                    Start Time <span class="time-text">{{ event.acf.event_start_time }}</span>
55                </span>
56                <span class="sep">|</span>
57                <span class="location">
58                    <i class="fa fa-map-marker" aria-hidden="true"></i>
59                Location <span class="location-text">{{ event.location }}</span>
60            </span>
61            </span>
62            </a><!-- /event -->
63        </div><!-- /event-wrapper -->
64    </div><!-- /events -->
65
```



# Kiosk App

SATURDAY, JULY 15

Today's Weather:  Sunny and 74 degrees

WELCOME TO THE HARRIS CENTER

## Interactive Building Map



## Recently published research



The Amazing  
Hubble



Radio Astronomy



Space The Final  
Frontier



How To Look Up

## Today's Events

### Behst Lecture Series: Dawn of Time

 10:00am |  Main Auditorium

### Welcome Address for Students & Family

 12pm |  Room 1544

### Common Ground

 12:30pm |  Main Auditorium

### Telescopes 101

 12:30pm |  Theisen Telescope - East

### Wurst Lecture Series: Apocolypse

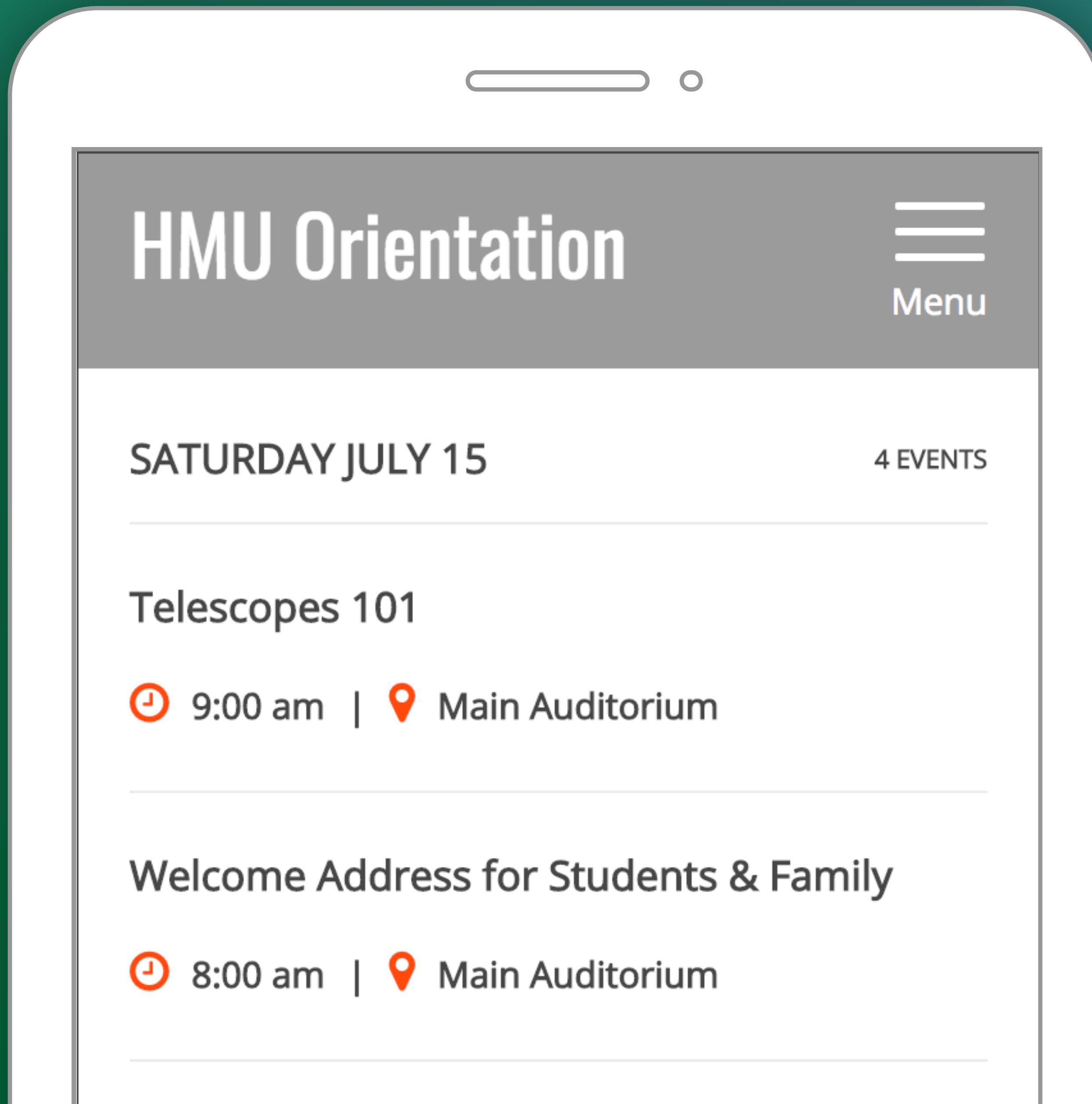
 6pm |  Main Auditorium

### Jim Davis: American Hero

 6pm |  Room 1984



# Orientation App



```
1  /**  
2  * App.js  
3  *  
4  * @since 1.0.0  
5  */  
6  (function() {  
  
Route    var eventsApiURL = '/wp-json/wp/v2/events/?_embed&per_page=6';  
  
8  
9  var events = new Vue({  
10    el: '#app',  
11    data: {  
  
Location  eventLocation: '14', // University  
Category   eventCategory: '5, 6', // Orientation, Student Ambassadors  
14      eventsCount: null,  
15      events: null  
16    },  
17  
18    created: function() {  
19      this.fetchEventData();  
20    },  
21  })
```



# We already did that.

Create Event Category in WordPress

Change Category in REST API request

Drink Lemonade





## Credits

Cat herding commercial by EDS

Iron Man 3 by Marvel Studios

Repulsor icon created by Alex Krummenacher for the Noun Project

**Github:** <https://github.com/higher-metric>

**WordPress:** [university.highermetric.com](http://university.highermetric.com)

**htaccess u:demo p:highermetric  
/wp-admin u:hm-university p:highermetric**