

The Wordpress REST API

and getting the most out of it

***Let's get on
the same page***

What's an API?

Application

Programming

Interface

It's a way for applications to communicate with each other, or for discrete parts of an application to communicate with each other.

What's REST?

REpresentational **S**tate **T**ransfer

- Behind a lot of operations on the Web
- You probably use GET and POST a lot with forms
- Submit request, get response with payload

What's JSON?

Java**S**cript **O**bject **N**otation; a textual format for storing and parsing javascript objects

Many APIs return their payload formatted in JSON.

The Wordpress API

What's already there

- Find the API by going to /wp-json (e.g. chicagowatertaxi.com/wp-json)
- This will get you the site info and a list of API routes you can use
- Some of these routes will be generated by plugins, which often have an API for internal utility purposes

```
JSON  Raw Data  Headers
Save  Copy  Collapse All  Expand All
name: "Chicago Water Taxi"
description: "Connecting Chicago"
url: "https://www.chicagowatertaxi.com"
home: "https://www.chicagowatertaxi.com"
gmt_offset: "0"
timezone_string: ""
namespaces:
  0: "oembed/1.0"
  1: "redirection/v1"
  2: "yoast/v1"
  3: "cwt/v1"
  4: "wp/v2"
authentication: []
routes:
  /:
    namespace: ""
    methods:
      0: "GET"
    endpoints:
      0:
        methods:
          0: "GET"
        args:
          context:
            required: false
            default: "view"
        _links:
          self: "https://www.chicagowatertaxi.com/wp-json/"
```

Hey, look at that.

Let's look at some data

If you look at `/wp-json/wp/v2/posts`, you'll find a JSON object that returns data for all posts

(for most of our sites this will not return very much, because we don't usually use the 'post' post type)

`/wp-json/wp/v2/pages` is also available, and probably has a lot more to look at. Try it on a site!

```

▼ 0:
  id: 1258
  date: "2019-03-13T19:49:49"
  date_gmt: "2019-03-13T19:49:49"
  ▼ guid:
    rendered: "https://www.chicagowatertaxi.com/?page_id=1258"
    modified: "2019-03-27T18:13:30"
    modified_gmt: "2019-03-27T18:13:30"
    slug: "Chicago-Riverwalk-Fireworks-Cruise"
    status: "publish"
    type: "page"
  ▼ link: "https://www.chicagowatertaxi.com/Chicago-Riverwalk-Fireworks-Cruise/"
  ▼ title:
    rendered: "Chicago Riverwalk Fireworks Cruise"
  ▼ content:
    ▼ rendered:
      "<h1>Chicago Riverwalk Fireworks Cruise</h1>\n<p>Join Chicago Water Taxi on Wednesday and Saturday nights as we depart from the Riverwalk to view the City's magnificent fireworks display.</p>\n<p>No city embraces summer quite like Chicago. Join the celebration with friends and family on this social fireworks cruise featuring <a href='\"https://web.archive.org/web/20180803022848/https://citywinery.com/chicago/riverwalk/\"' target='\"_blank\"' rel='\"noopener noreferrer\"'>City Winery</a>'s unique Chicago inspired wine selection. The Riverwalk Fireworks Cruise is aboard the Wendella LTD, Chicago Water Taxi's flagship vessel.</p>\n<p>The journey begins at the Chicago Riverwalk, cruises up and down the main branch of the Chicago River, and ends with a spectacular view of the Chicago Fireworks as seen from the Chicago River.</p>\n<p>&nbsp;</p>\n<h3>General Cruise Information</h3>\n<p>Located on the bottom deck of our vessel is a climate controlled lounge with a limited selection of beverages (alcoholic and non-alcoholic). There is also a restroom available on board. There is no narration, but light music for you to enjoy as the vessel cruises up and down the Chicago River. Boarding for each tour will begin 15 minutes before the departure time at the Chicago Water Taxi's Riverwalk Clark Street Water Taxi Stop, located on the southwest corner of the Clark Street bridge on the Chicago Riverwalk.</p>\n<h3>&nbsp;</h3>\n<p>&nbsp;</p>\n<h3>Tickets</h3>\n<p>&#8211; 75 Minutes<br />\n<b>Adult</b>: $19.00 | <b>Child</b>: $6.50</p>\n<p><iframe id='\"IFrameWebEngine\"' style='\"min-width: 240px; min-height: 250px; visibility: visible; background-color: transparent; overflow: hidden;\"' src='\"https://secure.rocket-rez.com/RocketWeb/?id=61da5cf734e32efb#\"' width='\"100%\"' height='\"299\"' frameborder='\"0\"' scrolling='\"yes\"'></iframe></p>\n<p>Tickets can also be purchased by calling 312-337-1446, or on the vessel.</p>\n"
    protected: false
  ▼ excerpt:
    ▼ rendered:
      "<p>Chicago Riverwalk Fireworks Cruise<br />\nJoin Chicago Water Taxi on Wednesday and Saturday nights as we depart from the Riverwalk to view the City's magnificent fireworks display.<br />\nNo city embraces summer quite like Chicago. Join the celebration with friends and family on this social fireworks cruise featuring <a href='\"https://web.archive.org/web/20180803022848/https://citywinery.com/chicago/riverwalk/\"' target='\"_blank\"' rel='\"noopener noreferrer\"'>City Winery</a>'s unique Chicago inspired wine selection. The Riverwalk Fireworks Cruise is aboard the Wendella LTD, Chicago Water Taxi's flagship vessel.<br />\nThe journey begins at the Chicago Riverwalk, cruises up and down the main branch of the Chicago River, and ends with a spectacular view of the Chicago Fireworks as seen from the Chicago River.<br />\n&nbsp;<br />\nGeneral Cruise Information<br />\nLocated on the bottom deck of our vessel is a climate controlled lounge with a limited selection of beverages (alcoholic and non-alcoholic). There is also a restroom available on board. There is no narration, but light music for you to enjoy as the vessel cruises up and down the Chicago River. Boarding for each tour will begin 15 minutes before the departure time at the Chicago Water Taxi's Riverwalk Clark Street Water Taxi Stop, located on the southwest corner of the Clark Street bridge on the Chicago Riverwalk.<br />\n&nbsp;<br />\nTickets<br />\n&#8211; 75 Minutes<br />\nAdult: $19.00 | Child: $6.50</p>\n"
    protected: false
  author: 1
  featured_media: 1273
  parent: 0
  menu_order: 0
  comment_status: "closed"

```

The start of the page data.

Performing actions

Routes also have different REST endpoints based on the **method** used to access them (e.g. GET, POST, or DELETE)

E.g., if you go to the route for an individual post with the correct credentials, using GET will get the contents, POST will update the contents, and DELETE will delete the post

Why might we use this?

- Using Wordpress as a “headless” backend with Vue/React/etc.
- Creating a progressive web app where we need to navigate pages without reloading the page
- Loading more posts asynchronously via a “load more” button

Let's make it a little more useful

Raise your hand if you've created a custom post type for a project?

An option to keep in your head: 'show_in_rest'

This is always initially set to false, but will allow you to use `/wp-json/wp/v2/post_type`

Let's make it even MORE useful?

That's great, but:

- What if I want the content of the custom fields, too?
- What if I want to structure the return content in a different way?
- What if I want to return something other than JSON?

Using register_rest_route

Setting up a route:

```
register_rest_route('namespace/v1', 'route', array(  
    'methods' => WP_REST_SERVER::READABLE,  
    'callback' => 'your_handler_function_name'  
));
```

Adding as an action

Then add the action to the REST API initializer:

```
add_action( 'rest_api_init', 'initializer_function_name' );
```

You'll have to flush your permalinks, but once you do you should be able to navigate to `/wp-json/namespace/v1/route` and get a response based on what you put in your handler.

***Now you too
can REST***

Full documentation at <https://developer.wordpress.org/rest-api>