

ReactJS and Drupal 8

Writing content rich JavaScript/REST web apps.

DrupalCamp Atlanta

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[Screencast video](#) and [Source code](#) for this presentation.

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Motivation

- **Drupal is your favorite CMS**
- **AJAX apps and SPA's are cool!**
- **ReactJS is the HOTTEST thing (What? It's vue.js now?)**
- **REST support: D7 contrib, D8 core**
- **D8's Content + React's UX == Awesome!**



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- SpinSpire is a Drupal focused company.
- All developers located in Jacksonville, Florida.
- Contributed modules: [popular_tags](#) & [prlp](#).
- Clients such as Nike, Florida Blue and Federal Govt.
- Find us on the web, or visit <https://spinspire.com/>

ReactJS key facts

- Not full MVC, only View.
- Has addons for other stuff - routing, state mgmt, ajax...
- Uses "Virtual DOM" for performance.
- Lets you build components that can be injected DOM and updated when state changes.
- Best used with ES6 or ES2015 which compiles to JS.

Setup

- **Install D8 and some basic modules**
 - `drush dl devel admin_toolbar pathauto token ctools`
 - `drush -y en devel devel_generate admin_toolbar_tools pathauto`
 - `drush -y en rest`
- **Generate some users, terms and nodes**
 - `drush generate-users 10`
 - `drush generate-terms tags 10`
 - `drush generate-content 50 0 --types=article`

Enabling Content serving as JSON

- `drush -y en restui rest serialization`
- Visit Configuration > Web Services > REST
- Enable "Content"

Settings for resource *Content* ☆

[Home](#) » [Administration](#) » [Configuration](#) » [Web services](#) » [Rest](#)

Here you can restrict which HTTP methods should this resource

Granularity

Resource ▾

Methods

- GET
- POST
- DELETE
- PATCH

Accepted request formats

- json
- xml

Authentication providers

- cookie

[Save configuration](#)

RESTful services in Drupal 8

- GET http://localhost/node/1?_format=json
- POST <http://localhost/entity/node>
- PATCH <http://localhost/node/1>
- DELETE <http://localhost/node/1>
- Create views and add "REST export" display.
- GET <http://localhost/node/rest>
- And much more!!!

Drupal 8 - CSRF and Authentication

- JavaScript code should get CSRF token from `/rest/session/token`
- Include token as `X-CSRF-Token` in all requests
- JS app deployed to a subdomain of D8
- So that authentication cookie can be shared
- Configure Drupal REST to use cookie auth

Drupal 8 - CORS

Configure `cors.config` in `services.yml`.

```
cors.config:
```

```
  enabled: true
```

```
  allowedHeaders: ['x-csrf-token', 'content-type']
```

```
  allowedMethods: ['GET', 'POST', 'PATCH', 'DELETE']
```

```
  allowedOrigins: ['*']
```

```
  supportsCredentials: true
```

Recipe: ReactJS App in Drupal 8

- Use this demo app as the starting point
- Deploy Drupal 8 to localhost.d8 and this app at app.localhost.d8 (a subdomain)
- Develop and test React app in standalone mode. Use webpack dev server with hot-reloading.
- Compile to dist with "npm run build"
- Finally, add a block in Drupal that embed React App.

ReactJS App Development

- Install npm.
- Follow a productive dev workflow using webpack-dev-server.
- Implement basic ReactJS components.
- Implement basic state management - App is the only stateful component. All others are pure functional.
- Use `axios` for AJAX requests. Configure it to include X-CSRF-Header and credentials cookie.

For More Information

- Screencast Video: <https://youtu.be/UwCX9oPpfPI>
- Source code: <https://bitbucket.org/spinspire/d8-react>
- Email: jitesh@spinspire.com
- Follow [@spinspire_com](https://twitter.com/spinspire_com)
- Visit spinspire.com
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Questions?