Vue.js + SiteFarm

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- IET Professional Services, Web Development Team
- Full Stack Web Developer
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Introduction to Vue.js

Let’s Get Started

What is Vue.js?

- Vue.js is a **progressive framework** for building user interfaces
- Over 95,000 stars on GitHub
- Excellent documentation
- Fast and lightweight
- Component-based architecture
- Uses a virtual DOM
- Webpack code splitting is a first class citizen

Vue Basics

HTML

```html
<div id="app">

</div>
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
})
```

https://codepen.io/pen/qKBgGb

Vue Basics

- Data Binding **{{ Syntax }}**

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>
</div>
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
  }
})
```

Hello UC Davis Developers!

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>

  <ul class="columns">
    <li v-for="item in items" class="column">
      <p class="item">
        {{ item }}
      </p>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [
      'first',
      'second',
      'third',
      'fourth',
    ],
  }
})
```

Hello UC Davis Developers!

first | second | third | fourth

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>

  <ul class="columns">
    <li v-for="item in items" class="column">
      <p class="item">
        {{ item }}
      </p>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [
      'first',
      'second',
      'third',
      'fourth',
    ],
  }
})
```

Hello UC Davis Developers!

first | second | third | fourth

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**
- Computed Properties

HTML

```html
  <ul class="columns">
    <li v-for="item in filteredItems" class="column">
      <p class="item">
        {{ item }}
      </p>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [↔],
    itemsShown: 2,
  },

  computed: {
    filteredItems () {
      return this.items.slice(0, this.itemsShown)
    }
  }
})
```

Hello UC Davis Developers!

first

second

HTML

```html
  <ul class="columns">
    <li v-for="item in filteredItems" class="column">
      <p class="item">
        {{ item }}
      </p>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [↔],
    itemsShown: 2,
  },

  computed: {
    filteredItems () {
      return this.items.slice(0, this.itemsShown)
    }
  }
})
```

Hello UC Davis Developers!

first

second

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**
- Computed Properties
- Input Bindings **v-model**

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>
  <div class="select">
    <select v-model="itemsShown">
      <option v-for="index in items.length"
              :value="index">
        {{ index}}
      </option>
    </select>
  </div>

  <ul class="columns">
    <li v-for="item in filteredItems"
class="column">
      <p class="item">
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [↔],
    itemsShown: 2,
  },

  computed: {
    filteredItems () {
      return this.items.slice(0,
this.itemsShown)
    }
  }
})
```

Hello UC Davis Developers!

2

first

second

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>
  <div class="select">
    <select v-model="itemsShown">
      <option v-for="index in items.length"
              :value="index">
        {{ index}}
      </option>
    </select>
  </div>

  <ul class="columns">
    <li v-for="item in filteredItems" class="column">
      <p class="item">
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [...],
    itemsShown: 2,
  },

  computed: {
    filteredItems () {
      return this.items.slice(0, this.itemsShown)
    }
  }
})
```

Hello UC Davis Developers! 2

first

second

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**
- Computed Properties
- Input Bindings **v-model**
- Attribute Bindings **v-bind:value** or **:value**

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>
  <div class="select">
    <select v-model="itemsShown">
      <option v-for="index in items.length"
              :value="index">
        {{ index}}
      </option>
    </select>
  </div>

  <ul class="columns">
    <li v-for="item in filteredItems"
class="column">
      <p class="item">
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [↔],
    itemsShown: 2,
  },

  computed: {
    filteredItems () {
      return this.items.slice(0,
this.itemsShown)
    }
  }
})
```

Hello UC Davis Developers! 2

first

second

HTML

```html
<div id="app">
  <h1 class="title">{{ title }}</h1>
  <div class="select">
    <select v-model="itemsShown">
      <option v-for="index in items.length"
              :value="index">
        {{ index}}
      </option>
    </select>
  </div>

  <ul class="columns">
    <li v-for="item in filteredItems"
class="column">
      <p class="item">
```

CSS (SCSS)

JS (Babel)

```js
new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [↔],
    itemsShown: 2,
  },

  computed: {
    filteredItems () {
      return this.items.slice(0,
this.itemsShown)
    }
  }
})
```

Hello UC Davis Developers! 3

first

second

third

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**
- Computed Properties
- Input Bindings **v-model**
- Attribute Bindings **v-bind:value** or **:value**
- Methods

HTML

```html
                :value="index"
                :selected="index === itemsShown">
            {{ index}}
          </option>
        </select>
      </div>
      <button @click="addItem" class="button is-info">
        Add Another
      </button>
      <ul class="columns">
        <li v-for="item in filteredItems"
class="column">
          <p class="item">
            {{ item }}
          </p>
```

CSS (SCSS)

JS (Babel)

```js
      }
    },

    methods: {
      addItem () {
        this.items.push('another')
        this.itemsShown = this.items.length
      }
    }
  })
```

Hello UC Davis Developers!

5 Add Another

first | second | third | fourth | another

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**
- Computed Properties
- Input Bindings **v-model**
- Attribute Bindings **v-bind:value** or **:value**
- Methods
- Event Listeners **v-on:click** or **@click**

HTML

```
6                 :value="index"
7                 :selected="index === itemsShown">
8           {{ index}}
9         </option>
10      </select>
11    </div>
12    <button @click="addItem" class="button is-info">
13      Add Another
14    </button>
15    <ul class="columns">
16      <li v-for="item in filteredItems"
    class="column">
17        <p class="item">
18          {{ item }}
19        </p>
```

CSS (SCSS)

JS (Babel)

```
17      }
18    },
19
20    methods: {
21      addItem () {
22        this.items.push('another')
23        this.itemsShown = this.items.length
24      }
25    }
26  })
```

Hello UC Davis Developers!

5 Add Another

first | second | third | fourth | another

Vue Basics

- Data Binding **{{ Syntax }}**
- Loops **v-for**
- Computed Properties
- Input Bindings **v-model**
- Attribute Bindings **v-bind:value** or **:value**
- Methods
- Event Listeners **v-on:click** or **@click**
- Components – Props & Slots

HTML

```html
    </select>
  </div>
  <button @click="addItem" class="button is-info">
    Add Another
  </button>
  <ul class="columns">
    <li v-for="(item, index) in filteredItems" class="column">
      <my-item class="item" :count="index + 1">
        {{ item }}
      </my-item>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```javascript
Vue.component('my-item', {
  props: ['count'],
  template: `
<div class="item">
  <h2>Item #{{count}}</h2>
  <slot></slot>
</div>
`,
})

new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [
```

Hello UC Davis Developers!

4 Add Another

Item #1
first

Item #2
second

Item #3
third

Item #4
fourth

HTML

```html
    </select>
  </div>
  <button @click="addItem" class="button is-info">
    Add Another
  </button>
  <ul class="columns">
    <li v-for="(item, index) in filteredItems" class="column">
      <my-item class="item" :count="index + 1">
        {{ item }}
      </my-item>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```javascript
Vue.component('my-item', {
  props: ['count'],
  template: `
<div class="item">
  <h2>Item #{{count}}</h2>
  <slot></slot>
</div>
`,
})

new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [
```

Hello UC Davis Developers!

4

Add Another

Item #1
first

Item #2
second

Item #3
third

Item #4
fourth

HTML

```html
    </select>
  </div>
  <button @click="addItem" class="button is-info">
    Add Another
  </button>
  <ul class="columns">
    <li v-for="(item, index) in filteredItems" class="column">
      <my-item class="item" :count="index + 1">
        {{ item }}
      </my-item>
    </li>
  </ul>
</div>
```

CSS (SCSS)

JS (Babel)

```js
Vue.component('my-item', {
  props: ['count'],
  template: `
<div class="item">
  <h2>Item #{{count}}</h2>
  <slot></slot>
</div>
`,
})

new Vue({
  el: '#app',
  data: {
    title: 'Hello UC Davis Developers!',
    items: [
```

Hello UC Davis Developers!

4

Add Another

Item #1
first

Item #2
second

Item #3
third

Item #4
fourth

Single File Components

- Compiled with Webpack and Vue Loader
- **<template>**, **<script>**, **<styles>**

Single File Components

```
<template>
  <div class="item">
    <h2>Item #{{count}}</h2>
    <slot></slot>
  </div>
</template>

<script>
  export default {
    props: ['count']
  }
</script>

<style lang="scss" scoped>
  .item {
    color: red;
  }
</style>
```

Single File Components

```
<template>
  <div class="item">
    <h2>Item #{{count}}</h2>
    <slot></slot>
  </div>
</template>

<script>
  export default {
    props: ['count']
  }
</script>

<style lang="scss" scoped>
  .item {
    color: red;
  }
</style>
```

Single File Components

- Compiled with Webpack and Vue Loader
- **<template>**, **<script>**, **<styles>**
- Scoped styles **<style scoped>**
- CSS preprocessors with **<style lang="scss">**

Ecosystem

Tooling

- Vue Devtools https://github.com/vuejs/vue-devtools
- Vue CLI https://github.com/vuejs/vue-cli
- Vue Test Utils https://vue-test-utils.vuejs.org/

Core Libraries

- Vuex - Flux style state management https://vuex.vuejs.org
- Vue Router https://router.vuejs.org
- Vue Server Renderer https://ssr.vuejs.org

Ecosystem

Extras

- Style Guide https://vuejs.org/v2/style-guide
- Cookbook https://vuejs.org/v2/cookbook
- Vue Curated https://curated.vuejs.org
- Awesome Vue https://github.com/vuejs/awesome-vue
- Vuetify https://vuetifyjs.com (Material Design component library)

Frameworks

- Nuxt.js - server rendered or static applications https://nuxtjs.org
- VuePress - static site generator https://vuepress.vuejs.org
- NativeScript - native mobile apps https://www.nativescript.org

Learn Vue

- Official Guide https://vuejs.org/v2/guide
- https://www.vuemastery.com
- https://laracasts.com/series/learn-vue-2-step-by-step
- Lynda.com

Using Vue.js in SiteFarm

Progressively Decoupled Blocks

Progressively Decoupled Blocks

- Create Drupal blocks with Vue.js that can be placed and configured by an Editor
- Docs: https://www.drupal.org/docs/8/modules/decoupled-blocks-vuejs
- Examples in /modules/contrib/pdb_vue

Getting Started

- Need a Site Builder role
- Enable “PDB Vue.js” module
- Create a Subtheme
- Add a directory such as “vue_blocks”
- Clear cache

Extend

Download additional contributed modules to extend your site's functionality.

Regularly review available updates to maintain a secure and current site. Always run the update script each time a module is updated. Enable the Update Manager module to update and install modules and themes.

vue

Enter a part of the module name or description

PDB

☐	**PDB Vue.js**

Install

Some required modules must be enabled

- You must enable the Progressively Decoupled Blocks (PDB) module to install PDB Vue.js.

Would you like to continue with the above?

Continue Cancel

Settings UI

- /admin/config/services/pdb-vue
- Enable development mode
- Enable SPA mode to turn an entire section into a Vue.js instance so that each block in it can be a global Vue component
  - If enabling this, only use component blocks
  - Vue instance blocks won’t play nice since it’s an instance in an instance

PDB Vue.js ☆

Home » Administration » Configuration » Web services

☐ Development Mode

Checking the box enables development mode

☑ Use Vue components in a Single Page App format.

Checking the box will initialize a Vue instance on a root element to overtake the entire page allowing each block to be a Vue Components.

App Element Selector

.l-main

Set the element that the Vue instance will be attached to. By default it will use the Classy theme's wrapping element "#page-wrapper".

Save configuration

Vue Demo Block

- subtheme
  - vue_blocks
    - vue_demo
      - vue_demo.info.yml
      - styles.css
      - script.js
      - template.html

Info file

- Only file actually needed **block_name.info.yml**
- Attach JS or CSS files
- Attach Libraries (collections of JS and CSS)
- Declare a template **template: filename.html**
- Enable Component **component: true**
- Block Configuration to allow Site Editors to configure the block

vue_demo.info.yml

```yaml
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css': {type:
external, minified: true}
      'styles.css': {}
add_js:
  footer:
    'script.js': {}
configuration:
  intial_count:
    type: textfield
    title: 'Starting Column Count'
    default_value: 4
```

vue_demo.info.yml

```yaml
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css': {type:
external, minified: true}
      'styles.css': {}
add_js:
  footer:
    'script.js': {}
configuration:
  intial_count:
    type: textfield
    title: 'Starting Column Count'
    default_value: 4
```

vue_demo.info.yml

```yaml
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css': {type:
external, minified: true}
      'styles.css': {}
add_js:
  footer:
    'script.js': {}
configuration:
  intial_count:
    type: textfield
    title: 'Starting Column Count'
    default_value: 4
```

vue_demo.info.yml

```yaml
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css': {type:
external, minified: true}
      'styles.css': {}
add_js:
  footer:
    'script.js': {}
configuration:
  intial_count:
    type: textfield
    title: 'Starting Column Count'
    default_value: 4
```

vue_demo.info.yml

```yaml
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css': {type:
external, minified: true}
      'styles.css': {}
add_js:
  footer:
    'script.js': {}
configuration:
  intial_count:
    type: textfield
    title: 'Starting Column Count'
    default_value: 4
```

Script.js

```
new Vue({
  el: '.vue-demo',

  data: {...},

  mounted () {
    const id = this.$el.id
    this.itemsShown = drupalSettings.pdb.configuration[id].intial_count
  },

  computed: {...},

  methods: {...}
})
```

Script.js

```
new Vue({
  el: '.vue-demo',

  data: {...},

  mounted () {
    const id = this.$el.id
    this.itemsShown = drupalSettings.pdb.configuration[id].intial_count
  },

  computed: {...},

  methods: {...}
})
```

Place block

+ Add custom block

vue

Block	Category	Operations
Vue Demo	PDB Vue.js	Place block

Configure block

Block description: Vue Demo

Title *

Vue Demo

Machine name: vuedemo_2Edit

This field supports tokens. Browse available tokens.

Display title

Component Settings

Starting Column Count

2

Save block

Learn about SiteFarm

Learn all about the services availabe through SiteFarm.

→ See Service Tiers

Built with Pattern Lab

See all of the patterns and individual components that come togther to build SiteFarm

→ Checkout Pattern Lab

Hello UC Davis Developers!

2

Add Another

Item #1

first

Item #2

second

{ json:api }

Exposing SiteFarm Data

With JsonAPI

JsonAPI

Query just the data you want without the roundtrips

- Standard specification for APIs in JSON http://jsonapi.org/
- Documentation: https://www.drupal.org/docs/8/modules/json-api
- Youtube Playlist: https://www.youtube.com/playlist?list=PLZOQ_ZMpYrZsyO-3IstImK1okrpfAjuMZ

Getting Started

- Need a Site Builder role
- Enable the “SiteFarm Decoupled” module
- Currently Read-only ☹

Extend

List | Uninstall

Home » Administration

Download additional contributed modules to extend your site's functionality.

Regularly review available updates to maintain a secure and current site. Always run the update script each time a module is updated. Enable the Update Manager module to update and install modules and themes.

decoupled

Enter a part of the module name or description

PDB

☑	**PDB Vue.js**	Enables Vue.js framework for use by Progressively Decoupled Blocks (PDB)
☑	**Progressively Decoupled Blocks (PDB)**	Build stuff with javascript frameworks as blocks.

SITEFARM

☑	**SiteFarm Decoupled**	Configuration and Enhancements for using a Decoupled site.

Install

Some required modules must be enabled

- You must enable the JSON API, Serialization, OpenAPI Redoc Documentation, OpenAPI, Schemata, Schemata in JSON Schema modules to install SiteFarm Decoupled.

Would you like to continue with the above?

Continue Cancel

Content - Article

Content type Article of type Content. Use *articles* for time-sensitive content like news, press releases or blog posts.

Search

CONTENT - ARTICLE

- GET collection get
- POST collection post
- GET individual get
- PATCH individual patch
- DELETE individual delete
- GET related get
- GET relationship get
- POST relationship post
- PATCH relationship patch
- DELETE relationship delete

collection get

@todo Add descriptions

PARAMETERS

Path Parameters

resource_type object **Required**

Responses

200 successful operation

GET /node/sf_article

RESPONSE SAMPLES

200 successful operation

```
[
  - {
      "type": "string",
      "id": "string",
    + "attributes": { …
      },
    + "relationships": {
      … },
    + "links": { … }
  }
]
```

API: Event Sample

View | Edit | API | Delete

Home » Event Sample

URL: /jsonapi/node/sf_event/7abad9c7-960b-479c-80c6-14a92fea87fc


```
{
    "data": {
        "type": "node--sf_event",
        "id": "7abad9c7-960b-479c-80c6-14a92fea87fc",
        "attributes": {
            "nid": 2,
            "uuid": "7abad9c7-960b-479c-80c6-14a92fea87fc",
            "vid": 2,
            "langcode": "en",
            "revision_timestamp": 1479801901,
            "revision_log": null,
            "status": true,
            "title": "Event Sample",
            "created": 1479801735,
            "changed": 1479801901,
            "promote": false,
```

API: Event Sample

View | Edit | API | Delete

Home » Event Sample

URL: /jsonapi/node/sf_event/7abad9c7-960b-479c-80c6-14a92fea87fc


```
{
    "data": {
        "type": "node--sf_event",
        "id": "7abad9c7-960b-479c-80c6-14a92fea87fc",
        "attributes": {
            "nid": 2,
            "uuid": "7abad9c7-960b-479c-80c6-14a92fea87fc",
            "vid": 2,
            "langcode": "en",
            "revision_timestamp": 1479801901,
            "revision_log": null,
            "status": true,
            "title": "Event Sample",
            "created": 1479801735,
            "changed": 1479801901,
            "promote": false,
```

Fetching Resources (GET)

Single resource

- http://example.com/jsonapi/**{{entity}}**/**{{bundle}}**/**{{uuid}}**
- http://example.com/jsonapi/node/sf_article/cf78aef29a41-6c08-c974-b069-7c9daba7
- http://example.com/jsonapi/block_content/sf_basic/7abad9c7-960b-479c-80c6-14a92fea87fc

Fetching Resources (GET)

List of multiple items

- http://example.com/jsonapi/**{{entity}}**/**{{bundle}}**
- http://example.com/jsonapi/node/sf_article
- http://example.com/jsonapi/block_content/sf_basic

Sorting

Short:

?sort=title

Longhand:

?sort[sort-title][path]=title

Sorting

Reverse Direction

Short:

?sort=-title

Longhand:

?sort[sort-title][path]=title

&sort[sort-title][direction]=DESC

Paging

?page[limit]=10&page[offset]=10


```
{
    "links": {
        "self": "https:\/\/example.com\/jsonapi\/node\/sf_person
?page%5Blimit%5D=10&page%5Boffset%5D=10",
        "next": "https:\/\/example.com\/jsonapi\/node\/sf_person
?page%5Boffset%5D=20&page%5Blimit%5D=10",
        "first": "https:\/\/example.com\/jsonapi\/node\/sf_person
?page%5Boffset%5D=0&page%5Blimit%5D=10",
        "prev": "https:\/\/example.com\/jsonapi\/node\/sf_person
?page%5Boffset%5D=0&page%5Blimit%5D=10"
    }
}
```

Filtering

Short: Key=Value pairs

?filter[field_name]=value

?filter[title]=My%20Awesome%20Article

Longhand:

?filter[last-name-filter][condition][path]=field_sf_last_name
&filter[last-name-filter][condition][operator]=STARTS_WITH
&filter[last-name-filter][condition][value]=M

Returned Data Format

- **data:** the document's "primary data"
- **errors:** an array of error objects
- **meta:** a meta object that contains non-standard meta-information
- **jsonapi:** an object describing the server's implementation
- **links:** a links object related to the primary data
- **included:** an array of resource objects related to the primary data
- **self:** the link that generated the current response document
- **related:** a related resource link

```
"data": {
    "type": "node--sf_person",
    "id": "53b2afd3-62ec-4790-9fda-11bb57399d34",
    "attributes": {
        "title": "Mark Miller",
        "field_sf_first_name": "Mark",
        "field_sf_last_name": "Miller",
        ...
    },
    "relationships": {
        "field_sf_primary_image": {
            "data": null,
            "links": {
                "self":
"https:\/\/example.com\/jsonapi\/node\/sf_person\/53b2afd3-62ec-4790-9fda-
11bb57399d34\/relationships\/field_sf_primary_image",
                "related":
"https:\/\/example.com\/jsonapi\/node\/sf_person\/53b2afd3-62ec-4790-9fda-
11bb57399d34\/field_sf_primary_image"
            }
        },
    },
}
```

```
"data": {
    "type": "node--sf_person",
    "id": "53b2afd3-62ec-4790-9fda-11bb57399d34",
    "attributes": {
        "title": "Mark Miller",
        "field_sf_first_name": "Mark",
        "field_sf_last_name": "Miller",
        ...
    },
    "relationships": {
        "field_sf_primary_image": {
            "data": null,
            "links": {
                "self":
"https:\/\/example.com\/jsonapi\/node\/sf_person\/53b2afd3-62ec-4790-9fda-
11bb57399d34\/relationships\/field_sf_primary_image",
                "related":
"https:\/\/example.com\/jsonapi\/node\/sf_person\/53b2afd3-62ec-4790-9fda-
11bb57399d34\/field_sf_primary_image"
            }
        },
    },
}
```

Include Related Resources

No need to make separate API requests for resources

?include=field_sf_primary_image


```
"included": [
    {
        "type": "file--file",
        "id": "4494fc03-f624-4a58-892a-3eebb368ab7f",
        "attributes": {
            "fid": 826,
            "filename": "myphoto.png",
            "filemime": "image\/png",
            "filesize": 52461,
            "url": "\/sites\/g\/files\/dgvnsk2646\/files\/images
\/person\/myphoto.png”
            ...
        }
    }
]
```

Helper libraries

- JsonAPI-Parse: Combine Data and Includes
  - https://www.npmjs.com/package/jsonapi-parse
- Client Libraries
  - http://jsonapi.org/implementations/#client-libraries
- Waterwheel: General Purpose Drupal JS library (includes Axios)
  - https://www.npmjs.com/package/waterwheel

CORS (Cross-Origin Resource Sharing)

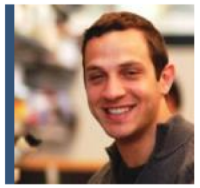
- Allows external sites to access your data via a browser
- Place a **cors.services.yml** file in a subtheme

```
parameters:
  cors.config:
    enabled: true
    allowedHeaders: ['x-csrf-token', 'authorization', 'content-
type', 'accept', 'origin', 'x-requested-with']
    allowedMethods: ['GET']
    allowedOrigins: ['*']
    exposedHeaders: true
    maxAge: false
    supportsCredentials: false
```

Case Study

Faculty Directory for College of Biological Sciences

Academic Department Directory



Jawdat Al-Bassam

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Research Interests: The Structure and Mechanisms of Microtubule Regulatory Proteins in Assembly and Disassembly of tubulin dimers

530-752-3521 | jawdat@ucdavis.edu | Lab website | View Listing

Life Science Addition-3220

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Department of Mathematics, College of Letters and Science

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Briggs Hall 0009 and MSB 2115

Filter Faculty

First Name

Last Name

Faculty Type

Active Faculty

Undergraduate Research Opportunities Available

Apply

› Academic Departments

Evolution and Ecology

Requirements

- Faculty Directories for external sites using data from the main Biology website
- Blocks should be configurable by Editors
- Each Department needs to show only faculty related to their department
- Styles should match the main Biology site
- Usable in SiteFarm sites and non-SiteFarm sites
- Unit and E2E tests

Architecture

- PDB Vue blocks with SPA mode
- Initialized with Vue CLI
- Each block is a Vue Single File Component
- State management through Vuex
- Compiled with Webpack allowing ES6 and Hot Reloading
- Ajax in JsonAPI data with Axios
- Unit test with Jest and E2E test with Nightwatch
- Continuous Integration with Bitbucket Pipelines to run tests automatically

NPM Scripts

```
"scripts": {
  "dev": "webpack-dev-server --inline --progress",
  "start": "npm run dev",
  "unit": "jest --config test/unit/jest.conf.js",
  "e2e": "node test/e2e/runner.js",
  "test": "npm run unit && npm run e2e",
  "lint": "eslint --ext .js,.vue src test/unit/specs",
  "build": "node build/build.js",
  "external": "node build/build-external.js"
}
```

File Structure

- subtheme
  - vue_blocks
    - blocks – .info files to register pdb_vue blocks
    - dist – Compiled code ready for production
    - external – Compiled code designed for external sites
    - src – Vue single file components and Vuex store
    - test – Jest and Nightwatch tests
    - index.html – Used for Webpack Hot Reloading in dev
    - package.json

- src
  - components
    - AddressDisplay.vue
    - DirectoryFilter.vue
    - MainDirectory.vue
    - PersonTeaser.vue
    - ThePager.vue
  - store
    - index.js – Vuex store and API fetch actions
  - main.js – Use for in dev outside of Drupal
  - main-prod.js – No Vue instance (already provided by PDB Vue)

```yaml
name: Main Directory
machine_name: main-directory
component: True
configuration:
  activeOnly:
    type: checkbox
    title: 'Show only Active Faculty'
  directoryType:
    type: select
    title: 'Directory Type'
    options:
      '': 'All'
      ...
add_css:
  header:
    theme:
      '../../dist/static/css/app.css': {}
add_js:
  footer:
    '../../dist/static/js/manifest.js': {}
    '../../dist/static/js/vendor.js': {}
    '../../dist/static/js/app.js': {}
```

```yaml
name: Directory Filter
machine_name: directory-filter
type: pdb
description: 'Filter for the Faculty Directory'
package: Vue
core: '8.x'
module_status: active
presentation: vue
component: True
```

Styles from Pattern Lab

- Style Library of reusable SiteFarm components
- Replicate the markup and add CSS classes
- http://ucd-one-patternlab.s3-website-us-west-1.amazonaws.com

Faculty

Ms. Janeka Elodia

Web Developer | IET, Web Development

(530) 752-8126 | janeka@ucdavis.edu | www.janeka.com |

View Listing

Suite 12, Jackson Building

2944 Peach Street, Davis, CA 95666

Office Hours 9AM-5PM

Filter Results

First Name

Last Name

Position Title

The state of the pages-person-directory pattern is: • complete

The pages-person-directory pattern contains the following patterns: • templates-person-directory

HTML Mustache

```
<div class="page l-header--fixed">
  <header class="l-header header" role="banner">
    <div class="header__bar">
      <a href="#nav" class="nav-toggle js-nav-toggle">
        <span class="nav-toggle__icon nav-toggle__icon--menu">Menu</span>
      </a>
      <div class="header__fixed-site-name"><a href="#">SiteFarm</a></div>
      <div class="l-container"><a href="https://www.ucdavis.edu/" class=""><img src="../../images/uc-logo-white.svg" class="ucd-logo" alt="UC Davis Logo" /></a>
</div>
    </div>
    <div class="header__branding">
      <div class="l-container o-media">
        <div class="o-media__figure"><a href="#" class=""><img src="../../images/site-logo.svg" class="site-logo" alt="Site Logo" /></a>
</div>
        <div class="o-media__body">
          <h1 class="header__site-name">SiteFarm</h1>
```

Configure block

Home » Administration » Structure » Block layout

Block description: Main Directory

Title *

Main Directory

Machine name: maindirectory

This field supports tokens. Browse available tokens.

☑ Display title

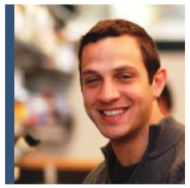
COMPONENT SETTINGS

☐ Show only Active Faculty

Directory Type

All

External Demo



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Briggs Hall 0009 and MSB 2115

Directory Filter

First Name

Last Name

Faculty Type

Active Faculty

☐ Undergraduate Research Opportunities Available

Apply

```
<div class="l-content">
  <div class="region region-content">
    <div id="block-maindirectory" class="block panel o-box">
      <main-directory
        active-only="0"
        directory-type="986">
      </main-directory>
    </div>
  </div>
</div>

<aside class="l-sidebar-second">
  <div class="region region-sidebar-second">
    <div id="block-directoryfilter" class="block panel o-box">
      <h2 class="panel__title">Directory Filter</h2>
      <directory-filter></directory-filter>
    </div>
  </div>
</aside>
```

```
<div class="l-content">
  <div class="region region-content">
    <div id="block-maindirectory" class="block panel o-box">
      <main-directory
        active-only="0"
        directory-type="986">
      </main-directory>
    </div>
  </div>
</div>

<aside class="l-sidebar-second">
  <div class="region region-sidebar-second">
    <div id="block-directoryfilter" class="block panel o-box">
      <h2 class="panel__title">Directory Filter</h2>
      <directory-filter></directory-filter>
    </div>
  </div>
</aside>
```

Bitbucket-pipelines.yml

```yaml
# Node.js server
image: tenjaa/java-chrome-nodejs

pipelines:
  default:
    - step:
        caches:
          - node
        script:
          - java -version
          - npm --version
          - cd vue_blocks
          - npm install --no-spin
          - npm run unit
          - npm run e2e -- --env chrome_headless
```

IET WebDev / ... / Pipelines

Pipeline #58

Successful Rerun

1 min 25 sec • 3 minutes ago

Push by Mark Miller

Commit

6a96027

Pipeline View configuration

Step 1 1m 25s

Logs

Build + Add a service or database

```
Starting selenium server... started - PID:  279

[Filter Directory Test] Test Suite
==================================

Running:  Filter returns no results
  Warn: WaitForElement found 50 elements for selector ".vm-teaser". Only the first one will be c
 ✓ Element <.vm-teaser> was visible after 41 milliseconds.
 ✓ Element <.directory-filter> was visible after 32 milliseconds.
 ✓ Element <.spinner> was not present after 561 milliseconds.
 ✓ Testing if element <#main-directory> contains text: "There are no people".

OK. 4 assertions passed. (10.931s)

Running:  Filter by First Name
  Warn: WaitForElement found 50 elements for selector ".vm-teaser". Only the first one will be c
 ✓ Element <.vm-teaser> was visible after 1074 milliseconds.
 ✓ Element <.directory-filter> was visible after 55 milliseconds.
 ✓ Element <.spinner> was not present after 564 milliseconds.
 ✓ Testing if element <.vm-teaser> contains text: "Steffen Abel".

OK. 4 assertions passed. (2.916s)

Running:  Filter by Last Name
  Warn: WaitForElement found 50 elements for selector ".vm-teaser". Only the first one will be c
 ✓ Element <.vm-teaser> was visible after 1079 milliseconds.
 ✓ Element <.directory-filter> was visible after 31 milliseconds.
 ✓ Element <.spinner> was not present after 546 milliseconds.
 ✓ Testing if element <.vm-teaser> contains text: "Mark Goldman".

OK. 4 assertions passed. (2.992s)
```

Vue.js + SiteFarm