

# Vue.js + SiteFarm





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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

```
1 <div id="app">  
2  
3 </div>
```

▼

CSS (SCSS)

▼

JS (Babel)

```
1 new Vue({  
2   el: '#app',  
3 })
```

<https://codepen.io/pen/qKBgGb>

# Vue Basics

- Data Binding `{{ Syntax }}`

## HTML

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3 </div>
```

## CSS (SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5   }
6 })
```

Hello UC Davis Developers!

# Vue Basics

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

## HTML

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3
4   <ul class="columns">
5     <li v-for="item in items" class="column">
6       <p class="item">
7         {{ item }}
8       </p>
9     </li>
10   </ul>
11 </div>
```

## CSS (SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [
6       'first',
7       'second',
8       'third',
9       'fourth',
10      ],
11    }
12 })
```

# Hello UC Davis Developers!

first

second

third

fourth

## HTML

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3
4   <ul class="columns">
5     <li v-for="item in items" class="column">
6       <p class="item">
7         {{ item }}
8       </p>
9     </li>
10    </ul>
11  </div>
```

## CSS (SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [
6       'first',
7       'second',
8       'third',
9       'fourth',
10      ],
11    }
12 })
```

# Hello UC Davis Developers!

first

second

third

fourth

# Vue Basics

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

## HTML

```
12  <ul class="columns">
13    <li v-for="item in filteredItems"
14      class="column">
15        <p class="item">
16          {{ item }}
17        </p>
18      </li>
19    </ul>
20  </div>
```

## CSS (SCSS)

(SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [↔],
6     itemsShown: 2,
7   },
8
9   computed: {
10     filteredItems () {
11       return this.items.slice(0,
12         this.itemsShown)
13     }
14   }
15 })
```

# Hello UC Davis Developers!

first

second

## HTML

```
12  <ul class="columns">
13    <li v-for="item in filteredItems"
14      class="column">
15        <p class="item">
16          {{ item }}
17        </p>
18      </li>
19    </ul>
</div>
```

## CSS (SCSS)

```
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

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3   <div class="select">
4     <select v-model="itemsShown">
5       <option v-for="index in items.length"
6         :value="index">
7         {{ index}}
8       </option>
9     </select>
10    </div>
11
12   <ul class="columns">
13     <li v-for="item in filteredItems"
14       class="column">
15       <p class="item">
```

## CSS (SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [↔],
6     itemsShown: 2,
7   },
8
9   computed: {
10     filteredItems () {
11       return this.items.slice(0,
12         this.itemsShown)
13     }
14   }
15 })
```

Hello UC Davis Developers! 2 ▾

first

second

## HTML

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3   <div class="select">
4     <select v-model="itemsShown">
5       <option v-for="index in items.length"
6         :value="index">
7         {{ index}}
8       </option>
9     </select>
10    </div>
11
12  <ul class="columns">
13    <li v-for="item in filteredItems"
14      class="column">
15      <p class="item">
```

## CSS (SCSS)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [1, 2, 3, 4, 5],
6     itemsShown: 2,
7   },
8
9   computed: {
10     filteredItems () {
11       return this.items.slice(0,
12         this.itemsShown)
13     }
14   }
15 })
```

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

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3   <div class="select">
4     <select v-model="itemsShown">
5       <option v-for="index in items.length"
6         :value="index">
7         {{ index}}
8       </option>
9     </select>
10    </div>
11
12   <ul class="columns">
13     <li v-for="item in filteredItems"
14       class="column">
15       <p class="item">
```

## CSS (SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [↔],
6     itemsShown: 2,
7   },
8
9   computed: {
10     filteredItems () {
11       return this.items.slice(0,
12         this.itemsShown)
13     }
14   }
15 })
```

Hello UC Davis Developers! 2 ▾

first

second

## HTML

```
1 <div id="app">
2   <h1 class="title">{{ title }}</h1>
3   <div class="select">
4     <select v-model="itemsShown">
5       <option v-for="index in items.length"
6         :value="index">
7         {{ index}}
8       </option>
9     </select>
10    </div>
11
12   <ul class="columns">
13     <li v-for="item in filteredItems"
14       class="column">
15       <p class="item">
```

## CSS (SCSS)

## JS (Babel)

```
1 new Vue({
2   el: '#app',
3   data: {
4     title: 'Hello UC Davis Developers!',
5     items: [↔],
6     itemsShown: 2,
7   },
8
9   computed: {
10     filteredItems () {
11       return this.items.slice(0,
12         this.itemsShown)
13     }
14   }
15 })
16
17 })
```

# Hello UC Davis Developers!



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

```
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"
17             class="column">
18             <p class="item">
19                 {{ item }}
20             </p>
```

## CSS (SCSS)

```
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`

## 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"
17         class="column">
18         <p class="item">
19             {{ item }}
20         </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

```
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, index) in filteredItems"
17      class="column">
18      <my-item class="item" :count="index + 1">
19        {{ item }}
20      </my-item>
21    </li>
22  </ul>
</div>
```

## CSS (SCSS)

## JS (Babel)

```
1 ▾ Vue.component('my-item', {
2 ▾   props: ['count'],
3     template: `
4       <div class="item">
5         <h2>Item #{{count}}</h2>
6         <slot></slot>
7       </div>
8     `,
9   })
10
11 ▾ new Vue({
12   el: '#app',
13   data: {
14     title: 'Hello UC Davis Developers!',
15     items: [
16       { count: 1, item: 'first' },
17       { count: 2, item: 'second' },
18       { count: 3, item: 'third' },
19       { count: 4, item: 'fourth' }
20     ]
21   }
22 })
```

# Hello UC Davis Developers!

4 Add Another

Item #1  
first

Item #2  
second

Item #3  
third

Item #4  
fourth

## HTML

```
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, index) in filteredItems"
17        class="column">
18        <my-item class="item" :count="index + 1">
19          {{ item }}
20        </my-item>
21      </li>
22    </ul>
23  </div>
```

## CSS (SCSS)

(SCSS)

## JS (Babel)

```
1  Vue.component('my-item', {
2    props: ['count'],
3    template: `
4      <div class="item">
5        <h2>Item #{{count}}</h2>
6        <slot></slot>
7      </div>
8    `,
9  })
10
11 new Vue({
12   el: '#app',
13   data: {
14     title: 'Hello UC Davis Developers!',
15     items: [
```

Hello UC Davis Developers! 4 Add Another

Item #1  
first

Item #2  
second

Item #3  
third

Item #4  
fourth

## HTML

```
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, index) in filteredItems"
17        class="column">
18        <my-item class="item" :count="index + 1">
19          {{ item }}
20        </my-item>
21      </li>
22    </ul>
23  </div>
```

## CSS (SCSS)

## JS (Babel)

```
1 ▾ Vue.component('my-item', {
2 ▾   props: ['count'],
3     template: `
4       <div class="item">
5         <h2>Item #{{count}}</h2>
6         <slot></slot>
7       </div>
8     `,
9   }
10
11 ▾ new Vue({
12   el: '#app',
13   data: {
14     title: 'Hello UC Davis Developers!',
15     items: [
16       { count: 1, item: 'first' },
17       { count: 2, item: 'second' },
18       { count: 3, item: 'third' },
19       { count: 4, item: 'fourth' }
20     ]
21   }
22 })
```

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

[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.

Enter a part of the module name or description

PDB



**PDB Vue.js**

[Install](#)

## Some required modules must be enabled

[Home](#) » [Administration](#) » [Extend](#)

- 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

```
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css
```

# vue\_demo.info.yml

```
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

```
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css
```

# vue\_demo.info.yml

```
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css
```

# vue\_demo.info.yml

```
template: template.html
add_css:
  header:
    component:
      'https://cdnjs.cloudflare.com/ajax/bulma.css
```

# 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

x

+ Add custom block

vue

Block	Category	Operations
Vue Demo	PDB Vue.js	<a href="#">Place block</a>

## Configure block

x

**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**

Free

Style!

## Learn about SiteFarm

Learn all about the services available through SiteFarm.

→ See Service Tiers

## Built with Pattern Lab

See all of the patterns and individual components that come together 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-3IstlmK1okrpfAjuMZ](https://www.youtube.com/playlist?list=PLZOQ_ZMpYrZsyO-3IstlmK1okrpfAjuMZ)

# 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

[Home](#) » [Administration](#) » [Extend](#)

- 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](#)

The screenshot shows a user interface for managing an API endpoint. At the top, there are navigation links: 'Back to site' (with a left arrow icon), 'Manage' (with a three-line icon), 'Shortcuts' (with a star icon), 'API' (with a puzzle piece icon), and 'mark' (with a person icon). The 'API' link is highlighted with a green circle.

## Content - Article

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

**CONTENT - ARTICLE**

- collection get** (GET)
- collection post** (POST)
- individual get** (GET)
- individual patch** (PATCH)
- individual delete** (DELETE)
- related get** (GET)
- relationship get** (GET)
- relationship post** (POST)
- relationship patch** (PATCH)
- relationship delete** (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 ★



Home » Event Sample

URL: [/jsonapi/node/sf\\_event/7abad9c7-960b-479c-80c6-14a92fea87fc](/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,  
      "sticky": false  
    },  
    "relationships": {}  
  }  
}
```

# API: Event Sample ★

[View](#) [Edit](#) [API](#) [Delete](#)

[Home](#) » Event Sample

URL: [/jsonapi/node/sf\\_event/7abad9c7-960b-479c-80c6-14a92fea87fc](/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,  
      "sticky": false  
    },  
    "relationships": {}  
  }  
}
```

# 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": "53b2af3-62ec-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/53b2af3-62ec-4790-9fda-11bb57399d34/relationships/field_sf_primary_image",
                "related": "https://example.com/jsonapi/node/sf_person/53b2af3-62ec-4790-9fda-11bb57399d34/field_sf_primary_image"
            }
        },
    }
}
```

```
"data": {
    "type": "node--sf_person",
    "id": "53b2af3-62ec-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/53b2af3-62ec-4790-9fda-11bb57399d34/relationships/field_sf_primary_image",
                "related": "https://example.com/jsonapi/node/sf_person/53b2af3-62ec-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-3eabb368ab7f",
        "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

[Home](#) > Academic Department Directory



### Jawdat Al-Bassam

Assistant Professor | Department of Molecular and Cellular Biology

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

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📍 Life Science Addition-3220



### John Albeck

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### F. Javier Arsuaga

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### 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



└ AddressDisplay.vue

└ DirectoryFilter.vue

└ MainDirectory.vue

└ PersonTeaser.vue

└ ThePager.vue



└ 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)

```
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': {}
```

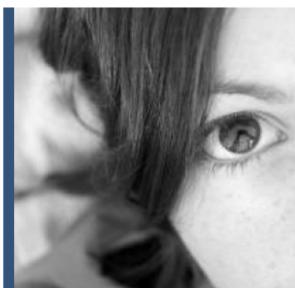
```
name: Directory Filter
machine_name: directory-filter
type: pdb
description: 'Filter for the Faculty Directory'
package: Vue
core: '8.x'
module_status: active
presentation: vue
component: True
```

# 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

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📌 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=""></a>
    </div>
  </div>
  <div class="header__branding">
    <div class="l-container o-media">
      <div class="o-media__figure"><a href="#" class=""></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**

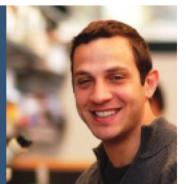
All





## External Demo

Home > External Demo



### Jawdat Al-Bassam

Assistant Professor | Department of Molecular and Cellular Biology  
Research Interests: The Structure and Mechanisms of Microtubule Regulatory Proteins in Assembly and Disassembly of tubulin dimers

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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

```
# 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
```

## 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: 479

[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 checked.  
✓ 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 checked.  
✓ 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 checked.  
✓ 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

