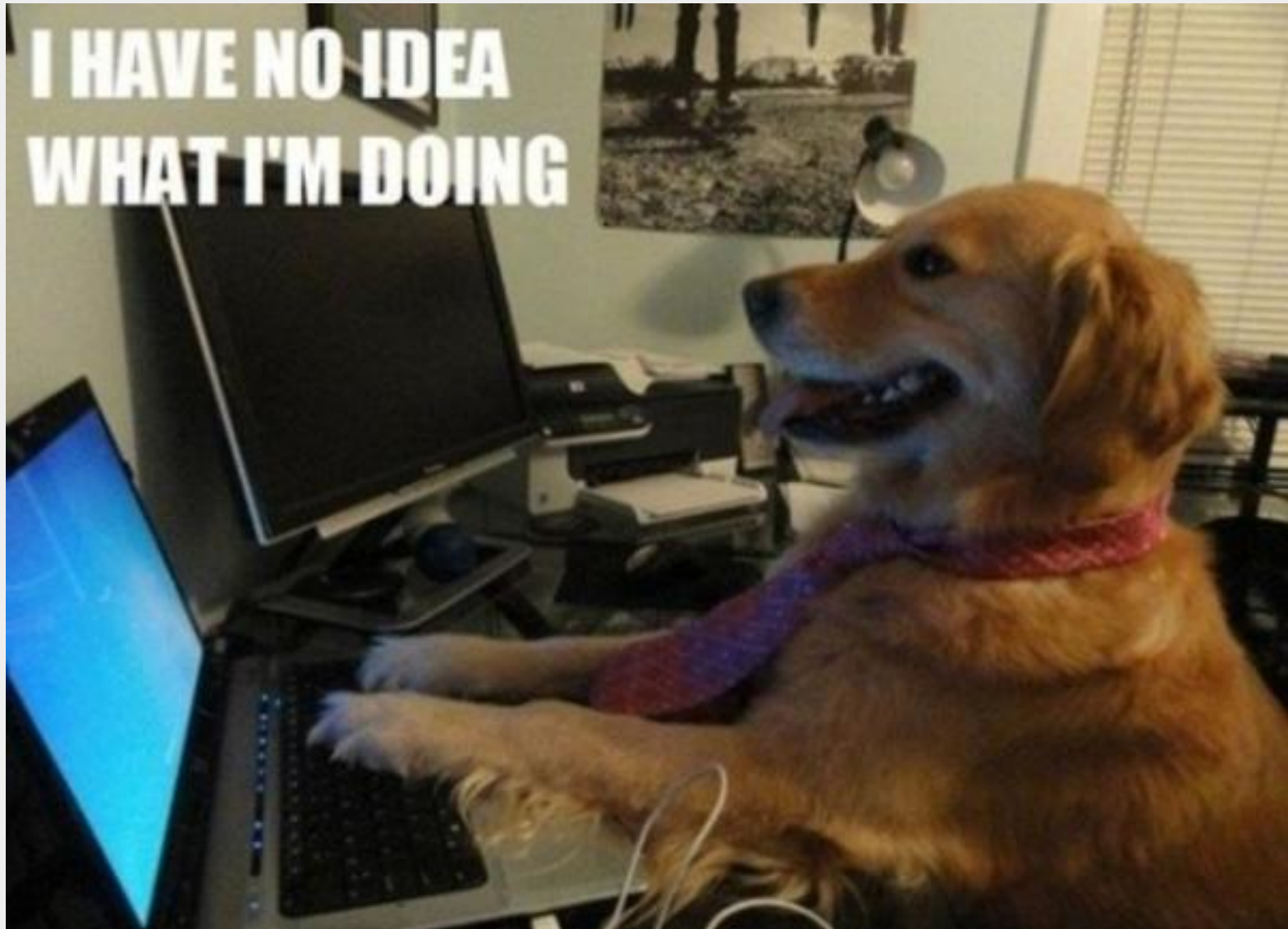


Bolt.

# About Me

- Freelance Web Developer
- PHPBench
- CMS Developer
  - yProximité
  - Symfony CMF
  - Sulu CMS

# Never made a website!



# Other Symfony-like CMS systems

- Drupal 8
- Symfony CMF
- Sulu CMS
- Grav (flat file)
- October CMS (laravel)
- PageKit

# Drupal 8

- Twig
- Uses Symfony components
- Uses Symfony CMF Routing component
- Would seem to do everything that I require and more.

# Drupal 8

- All files in web root by default
- No PSR-0/2!
- No Github!
- Configuration in the database by default
- Mouse-click configuration by default
- Composer support nascent
- DI container is global
- .. basically its unfamiliar
- Do I want to commit myself to this?

# Bolt CMS

- Silex
- Twig
- Doctrine DBAL
- Great default configuration

# Bolt Manifesto (abbreviated)

- Simple, sophisticated and straightforward.
- Targeted at editors and {front, backend} developers.
- Always open source.
- Our code should be clean, well-organised and legible.
- Always promote and maintain a welcoming and inclusive community.



# Configuration

Subject	Filename
Content Types	contenttypes.yml
Menus	menu.yml
Taxonomies	taxonomy.yml
Permissions	permissions.yml
Routing	routing.yml

# Content Types

```
2 # app/config/contenttypes.yml
3 pages:
4   name: Pages
5   singular_name: Page
6   fields:
7     title:
8       type: text
9       class: large
10      group: content
11     slug:
12       type: slug
13       uses: title
14     image:
15       type: image
16     teaser:
17       type: html
18       height: 150px
19     body:
20       type: html
21       height: 300px
22     template:
23       type: templateselect
24       filter: '*.twig'
25   taxonomy: [ chapters ]
26   recordsperpage: 100
27
```

app/config/contenttypes.yml

Content

Taxonomy

Meta

Title:

Home page

Permalink:

🔒

/pages/home-page

-

Image: ⓘ


Path to image file

Allowed file types: gif, jpg, jpeg, png, ...









⬇️ Upload image

⬆️ Select from server









Preview



Teaser:

Format - **B** *I*         Source

Body:

Format - **B** *I*         Source

Template:

(default template)

- X

🏠 Save Page -

🔗 Live Edit

👁️ Preview

Saved on: Tue 14 Jun 2016 12:56:19 UTC (16 days ago)

Backoffice form

# Home page

```
Content {#1711 ▼
  +id: "1"
  +values: array:14 [▼
    "datechanged" => "2016-06-14 12:36:13"
    "id" => "1"
    "slug" => "home-page"
    "datecreated" => "2016-06-14 12:36:13"
    "datepublish" => "2016-06-14 12:36:06"
    "datedepublish" => null
    "ownerid" => "1"
    "status" => "draft"
    "image" => array:1 [▶]
    "title" => "Home page"
    "teaser" => ""
    "body" => ""
    "template" => ""
    "templatefields" => Content {#1710 ▶}
  ]
  +taxonomy: array:1 [▶]
  +relation: []
  +contenttype: array:17 [▶]
  +user: array:18 [▶]
  +sortorder: null
  +config: null
  +group: array:4 [▶]
  #app: Application {#24 ▶}
  #lastWeight: 0
  #isRootType: true
}
```

[Edit](#) - Written by Admin on Tuesday June 14, 2016

## Alas, no about!

There currently is no Block with 'about-us' as its slug. If you create one, it will be shown here. Go to 'Configuration' > 'Check Database' and select 'Add sample Records' to automatically generate this Block.

## Recent Pages

- No recent Page.

[Pages overview »](#)

## Recent Entries

- [Hello](#)

[Entries overview »](#)

## Recent Showcases

- [Quam ob rem tandem, Inquit, non satisfact?](#)
- [Erit enim mecum, si tecum erit](#)
- [Quaerimus enim finem bonorum](#)

Frontoffice Twig dump() of content on <http://localhost:8000/pages/home-page>  
records implement array access

```
4
3 {{ record.title }}
2 {{ record.image|showimage }}
1
```

# Field Types

- Text
- Image / Image list
- Repeater fields
- Markdown
- HTML
- Geolocation
- Video (Youtube)
- etc..

# HTML

Html:

Format

**B**

*I*

☰

☷

☰☷

☰☷

🔗

🔗

*I*<sub>x</sub>

🔄

📄

Source

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quae animi affectio suum cuique tribuens atque hanc, quam dico. Stoici autem, quod finem bonorum in una virtute ponunt, similes sunt illorum; [Facillimum id quidem est, inquam. Istic sum, inquit. Ut aliquid scire se gaudeant?](#) Dempta enim aeternitate nihilo beator Iuppiter quam Epicurus; Duo Reges: constructio interrete. **Haeret in salebra.**

- Nihil acciderat ei, quod nollet, nisi quod anulum, quo delectabatur, in mari abiecerat.
- Tu enim ista lenius, hic Stoicorum more nos vexat.
- Non modo carum sibi quemque, verum etiam vehementer carum esse?
- Sed erat aequius Triarium aliquid de dissensione nostra iudicare.
- Gloriosa ostentatio in constituendo summo bono.

*Quid de Pythagora?* **Optime, inquam.** *Honesta oratio, Socratica, Platonis etiam.* At Zeno eum non beatum modo, sed etiam divitem dicere ausus est. Quis animo aequo videt eum, quem impure ac flagitiose putet vivere? **Quibusnam praeteritis?** Tum Piso: Quoniam igitur aliquid omnes, quid Lucius noster? Quis Aristidem non mortuum diligit? Ita redarguitur ipse a sese, convincunturque scripta eius probitate ipsius ac moribus. Iubet igitur nos Pythius Apollo noscere nosmet ipsos.

# Markdown

**Markdown:** ⓘ

**B** *I* 🔗 🖼️ “ ☰ ☷ ☸

MarkdownPreview ↗

Hello World

=====


Lorem ipsum dolor sit amet, consectetur adipiscing elit. Respondent extrema primis, media utrisque, omnia omnibus. Quis est tam dissimile homini.

Non enim solum Torquatus dixit quid sentiret, sed etiam cur. Ut in geometria, prima si dederis, danda sunt omnia. Prodest, inquit, mihi eo esse animo. Maximas vero virtutes iacere omnis necesse est voluptate dominante.

- ☞ Isto modo ne improbos quidem, si essent boni viri.
- ☞ Hanc ergo intuens debet institutum illud quasi signum absolvere.


*This field gets parsed as **Markdown**, when rendered on the site.*

# Image, Video


**Video:** ⓘ  
URL of video to embed  
   
  
Size  ×  pixel  
  
Matched video

**Image:** ⓘ  
Path to image file  
  
  
Title

Preview image



Preview





# Configuration

Subject	Filename
Content Types	contenttypes.yml
Menus	menu.yml
Taxonomies	taxonomy.yml
Permissions	permissions.yml
Routing	routing.yml

# Menu

```
1
2
3 main:
4   - label: Home
5     title: This is the first menu item.
6     path: homepage
7     class: first
8   - label: Second item
9     path: entry/1
10    submenu:
11      - label: Sub 1
12        path: entry/2
13      - label: Sub 2
14        class: menu-item-class
15        path: entry/3
16      - label: Sub 3
17        path: entry/4
18      - label: Sub 4
19        class: sub-class
20        path: page/3
21    - label: All pages
22      path: pages/
23    - label: The Bolt site
24      link: http://bolt.cm
25      class: last
```

app/config/menu.yml

# Menu

```
11
10 {# render default menu #}
9  {{ menu() }}
8
7  {# render foobar menu #}
6  {{ menu('foobar') }}
5
4  {# render menu using a specific template #}
3  {{ menu('foobar', 'barfoo.twig') }}
2
```

# Menu

- Not dynamic
- Very fast

# Configuration

Subject	Filename
Content Types	contenttypes.yml
Menus	menu.yml
Taxonomies	taxonomy.yml
Permissions	permissions.yml
Routing	routing.yml

# Taxonomy

```
2
3 tags:
4   slug: tags
5   singular_slug: tag
6   behaves_like: tags
7   postfix: "Add some freeform tags. Start a new tag by typing a comma or space."
8   allow_spaces: false
9   #listing_template: tag-listing.twig #custom template
10
11 chapters:
12   slug: chapters
13   singular_slug: chapter
14   behaves_like: grouping
15   options: { main: "The main chapter", meta: "Meta Chapter", other: "The other stuff" }
16   has_sortorder: true
17
18 categories:
19   name: Categories
20   slug: categories
21   singular_name: Category
22   singular_slug: category
23   behaves_like: categories
24   multiple: true
25   options: [ news, events, movies, music, books, life, love, fun ]
26   # autocomplete: false
27   # height: 10em
~
~
```






app/config/taxonomy.yml

# Taxonomy

```
7 # app/config/contenttypes.yml
6 pages:
5     name: Pages
4     # ...
3     fields:
2         # ...
1     taxonomy: [ chapters ]
21 
```

taxonomies can be applied via. the content type

# Taxonomy

Regions Nord				
	Id	Titre / Extrait	Propriétés	Actions
<input type="checkbox"/>	Nº 2993	<b>Test Region</b> Quia ipsum voluptatibus est accusantium e veniet. Atque possimus aut dolores quis totam incidunt d uclimus aperiam. Est quia assumenda minima sunt. Simi	 4 03/07/16	<a href="#">Modifier</a>
Regions Sud				
	Id	Titre / Extrait	Propriétés	Actions
<input type="checkbox"/>	Nº 3002	<b>Picardie</b> Ut quis corporis voluptate ullam placeat non. E aque possimus quia optio explicabo. Repellat tempore q uod tempore totam iste quidem eum.	 4 03/07/16	<a href="#">Modifier</a>
<input type="checkbox"/>	Nº 3001	<b>Saint-Pierre-et-Miquelon</b> Hic hic rei clendis culpa rerum soluta in. Molestiae asperiores consequuntur sit. Doloru m aliquam doloremque et reprehenderit nesciunt eum no	 4 03/07/16	<a href="#">Modifier</a>
<input type="checkbox"/>	Nº 3000	<b>Basse-Normandie</b> Est velit molestiae porro consequunt ur quos. Animi nobis doloribus illo velit eius similique dol ore consequatur. Ipsam omnis saepe dolor in perspicatis	 4 03/07/16	<a href="#">Modifier</a>
<input type="checkbox"/>	Nº 2999	<b>Aquitaine</b> Accusamus beatae dolores enim et doloribus	 4	<a href="#">Modifier</a>

grouping taxonomy



# Taxonomy

Text

Media

Files

Other

Relationships

Taxonomy

Meta

Categories:

× music

×

✓

Tags:

× usa

× privacy

× journalism

× adult

× us

×

adult book comedy crime fantasy gaming health historical horror internet journalism murder nsfw

philosophy politics privacy romance space travel us usa video world

Add some freeform tags. Start a new tag by typing a comma or space.

Save Showcase

Live Edit

Preview

Saved on: **Sat 02 Jul 2016 12:26:44 UTC** (19 minutes ago)

tags and categories

# Configuration

Subject	Filename
Content Types	contenttypes.yml
Menus	menu.yml
Taxonomies	taxonomy.yml
Permissions	permissions.yml
Routing	routing.yml

# Permissions

```
roles:
  editor:
    description: This user can edit some content.
    label: Editor
  admin:
    description: User-level administrator.
    label: Administrator
  # ...

roles-hierarchy:
  manipulate:
    admin: [ ]
    developer: [ admin ]
    chief-editor: [ admin, developer ]
  # ...

global:
  about: [ everyone ] # view the 'About Bolt' page
  clearcache: [ admin, developer ]
  # ...

contenttype-all:
  edit: [ developer, admin, chief-editor ]
  create: [ developer, admin, chief-editor ]
  # ...

contenttype-default:
  edit: [ editor ]
  create: [ editor ]
  # ...

contenttypes:
  showcases:
    # ...
    publish: [ admin, chief-editor ]
    depublish: [ admin, chief-editor ]
```



app/config/permissions.yml

# Permissions

- No per-object permissions

# Configuration

Subject	Filename
Content Types	contenttypes.yml
Menus	menu.yml
Taxonomies	taxonomy.yml
Permissions	permissions.yml
Routing	routing.yml

# Routing

```
1
2 actualites:
3   path: /actualites
4   defaults:
5     _controller: acme.foobar.controller.frontend:listByMonth
6     _template: foobar/frontend/listing.twig
7     _contenttype: actualites
8     _datefield: datepublish
9
10 actualites_for_month:
11   path: /actualites/{year}/{month}
12   defaults:
13     _controller: acme.foobar.controller.frontend:listByMonth
14     _template: foobar/frontend/listing.twig
15     _contenttype: actualites
16     _datefield: datepublish
17
18 region_group:
19   path: /regions/{group}
20   defaults:
21     _controller: acme.foobar.controller.region:index
22
23 regions:
24   path: /regions
25   defaults:
26     _controller: acme.foobar.controller.region:listing
27     _template: foobar/regions/regions.twig
28     _contenttype: regions
29
```

app/config/routing.yml

# Templates / Themes

# Templates / Themes

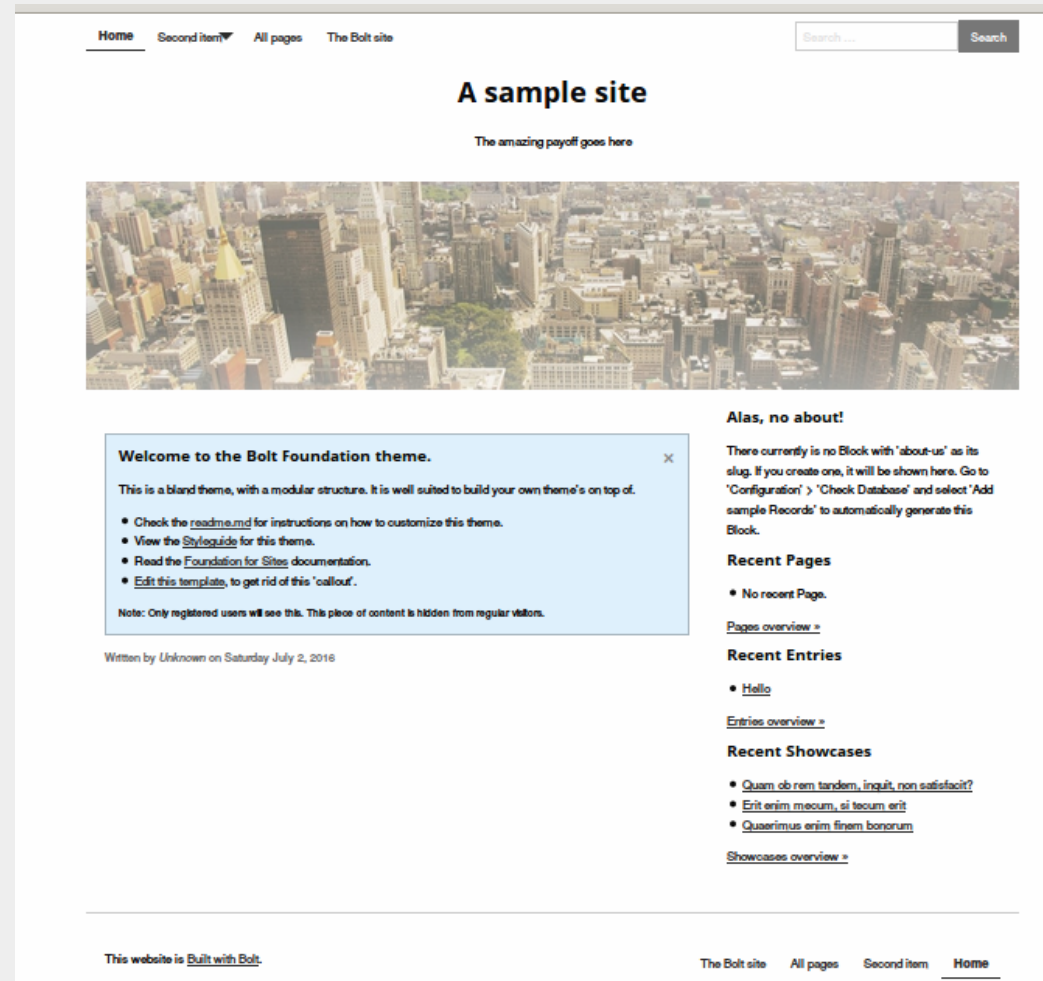
```
" Press ? for help
.. (up a dir)
/home/daniel/www/dantleech/boltdtl/
├─ app/
├─ extensions/
├─ public/
│  ├─ bolt-public/
│  ├─ extensions/
│  ├─ files/
│  └─ theme/
│     └─ base-2016/
│        ├─ css/
│        ├─ images/
│        ├─ js/
│        ├─ partials/
│        └─ source/
│           anotherextrafields.twig
│           archive.html.twig
│           CHANGELOG.md
│           extrafields.twig
│           index.twig
│           listing.twig
│           notfound.twig
│           npm-debug.log
│           page.twig
│           readme.md
│           record.twig
│           search.twig
│           styleguide.twig
│           theme.yml
├─ thumbs/
│  index.php
│  prism.css
│  prism.js
└─ vendor/
   composer.json
```

- Twig templating engine
- `theme.yml` config file.
- Templates fields.



# Default Theme

- Foundation 6
- SCSS
- Gulp



# Retrieving Content

In Twig templates

```
<div class="section">
  <h2>Actualités</h2>
  <h4>Decouvrez nos dernières Actus</h4>

  {% setcontent items = "actualites/latest/4" %}

  {% for item in items %}
    <article>
      <h1>{{ record.title }}</h1>
    </article>
  {% endfor %}
```

See <https://docs.bolt.cm/3.0/templates/content-fetching>

# Retrieving Content

With PHP

```
public function record(Request $request)
{
    // ...
    $record = $this->entityManager->getContent('news', [
        'slug' => $slug
    ]);

    // ...

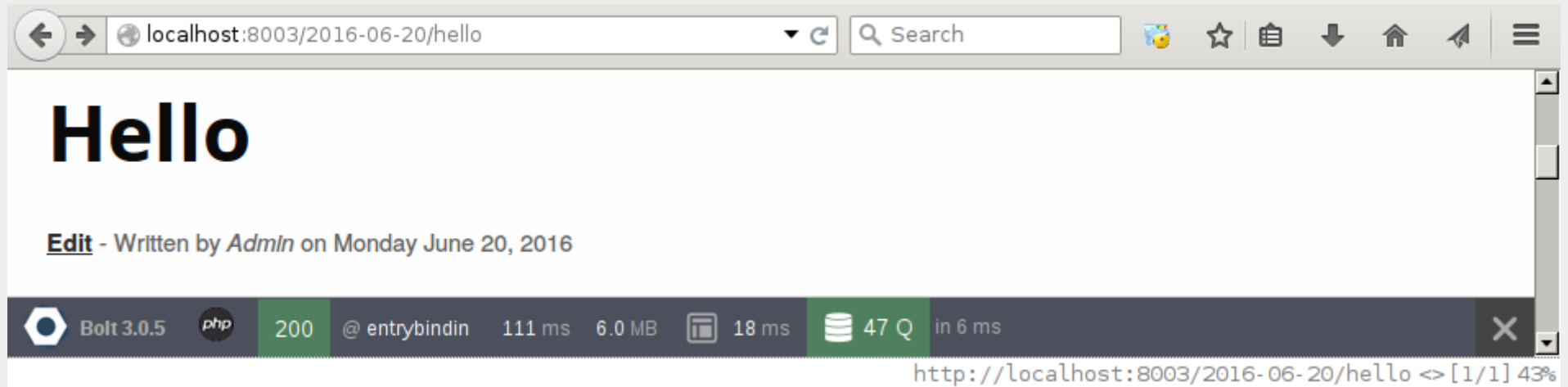
    return new Response($this->twig->render(
        $template, [
            'region' => $regionEntity,
            'record' => $record
        ]
    ));
}
```

# Retrieving Content

With PHP

- EntityManager != Doctrine ORM
- EntityManager is “new”
- Content retrieved with EntityManager does not behave like “Legacy” content (e.g. record.link will not work).

# Developer Tools



Debug Toolbar

# Error Handling

The screenshot displays the Whoops Error Handler interface. At the top, a header bar shows the breadcrumb "Whoops \ Example \ Exception" and the message "Something broke!". Below this, a "Stack frames (3):" section lists the following frames:

- 2 Whoops\Example\Exception  
.../filp/Development/whoops/examples/example.php:59
- 1 Whoops\Example\fooBar  
.../filp/Development/whoops/examples/example.php:64
- 0 Whoops\Example\bar  
.../filp/Development/whoops/examples/example.php:67

To the right of the stack trace, a code editor shows the source code for `example.php`. The code includes a `return $frame;` statement, a `register()` call, and two functions: `fooBar()` which throws an `Exception("Something broke!");`, and `bar()` which calls `fooBar()`.

Below the code editor, the "Environment & details:" section contains a table:

Ice-cream I like	
Chocolate	yes
Coffee & chocolate	a lot

Whoops Error Handler

# Extending

- Install from the Web interface.
- Install from CLI.
- Local extensions.
- Bot extension repository.
- <https://extensions.bolt.cm>.
- Configurations added automatically.

# Extending

```
6
7 class DtlBoltFixturesExtension extends AbstractExtension implements ServiceProviderInterface
8 {
9     use NutTrait;
10
11     public function registerNutCommands(Application $app)
12     {
13         return [
14             new LoadFixturesCommand($app['dtl.fixture.loader'], $app['storage'], $app['dtl.fixt
15         ];
16     }
17
18     public function register(Application $app)
19     {
20         $app['dtl.fixture.loader'] = function ($app) {
21             $loader = new Loader();
22             $loader->addInstantiator(new Instantiator($app['storage']));
23             $loader->addPopulator(new ReferencePopulator($app['storage']));
24             $loader->addPopulator(new TaxonomyPopulator($app['storage']));
25             return $loader;
26         };
27
28         $app['dtl.fixture.purger'] = function ($app) {
29             return new Purger($app['storage']);
30         };
31     }
32
33     public function boot(Application $app)
34     {
35     }
36
37     public function getServiceProviders()
38     {
39         return [ $this ];
40     }
41 }
42 }
```



# Example Extensions

- Bolt Forms: SF Forms, submission handling.
- Bolt Members: User registration, profiles.
- DTL Fixtures: Load, generate fixtures via. Alice.

# Its not perfect.. yet!!

- No Multilang support.
- Content types exposed by default.
- Hacky route generation workarounds.
- Container injection is favoured
- Hacky date handling.
- Experimental import / export functionality included but basically useless
- No system / user namespacing in database tables, value fields etc.
- Ignores errors by default, sometimes including Fataals (WSOD)
- Composer extension handling can be confusing
- Cannot use packagist deps in extension
- Raw DBAL query builder.
- Cannot currently override repositories for content.
- No hierarchical content handling.
- Cannot use custom repositories effectively.
- Cannot query relations using the new EntityManager without raw DBAL

# Its not perfect.. yet!!

- Lots of refactoring happened for v3.0.
- System has both legacy and “new” systems.
- Legacy system still used by core in some places.
- v4.0 should remove lots of legacy.

# Issues I created

- [github.com/bolt/bolt/issues/5469](https://github.com/bolt/bolt/issues/5469): Bug with repeating HTML field
- [github.com/bolt/bolt/issues/5465](https://github.com/bolt/bolt/issues/5465): Datetime
- [github.com/bolt/bolt/issues/5466](https://github.com/bolt/bolt/issues/5466): Bug with custom URL
- [github.com/bolt/bolt/issues/5470](https://github.com/bolt/bolt/issues/5470): Video + Markdown + Repeater??
- [github.com/bolt/bolt/issues/5490](https://github.com/bolt/bolt/issues/5490): Category form population
- [github.com/bolt/bolt/issues/5494](https://github.com/bolt/bolt/issues/5494): Query builder
- [github.com/bolt/bolt/issues/5504](https://github.com/bolt/bolt/issues/5504): Strict variables
- [github.com/bolt/bolt/issues/5506](https://github.com/bolt/bolt/issues/5506): Custom repositories

# Pull Requests I made

# Pull Requests I made

\* I did make some and will make more!

# Its not perfect

But very few things are.

If you found a perfect CMS, I want to know about it!

# Summary

- A lot of things work out-of-the-box
- Small sites may not even need and PHP.
- DX is generally very good, except when it's bad.
- Great support and very active community.



# Live Demo!

# The End

- Talk to me on Twitter: @dantleech
- Talk to Bolt on Twitter: @BoltCM
- Talk to Bolt on Freenode: #boltcms
- Visit the Bolt website: <https://bolt.cm>
- Enjoy a drink!