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Twiggin' Out With **Drupal** Templates

Hello!

I'm Sarah Campbell

I am a web developer at Coldfront Labs.

Overview

- ▶ Why we use twig
- ▶ Theme suggestions
- ▶ Twig syntax
- ▶ Reusable components
- ▶ Inheritance and block-based overwrites
- ▶ Debugging

Why use Twig?

- ▶ Secure
- ▶ Fast and Flexible
- ▶ Clean and maintainable code

1.

Twig Environment

Twig Cache

- Caching improves performance
- Parsed into PHP code
- Clear cache
- Enable in services file
OR
- Enable in Development config in the Drupal UI

```
parameters:  
  twig.config:  
    cache: false
```


Twig Debug

- Enable in services file
OR
- Enable in Development config in the Drupal UI

```
parameters:  
  twig.debug:  
    debug: true
```

Development settings ☆

These settings should only be enabled on development environments and never on production.

Twig development mode
Exposes Twig development settings.

Twig development mode

Twig debug mode
Provides Twig's `dump()` function for debugging, outputs template suggestions to HTML comments, and automatically recompile Twig templates after changes.

2.

Twig Templates

Naming Conventions

- Loads templates based on name
- Lowercase, hyphens to separate
- Allows us to override templates
- .html.twig extension

`http://www.example.com/node/1/edit`

- `page--node--edit.html.twig`
- `page--node--1.html.twig`
- `page--node.html.twig`
- `page.html.twig`

Theme Suggestions

- File names used to override templates
- Listed most specific to least

```
<!-- THEME DEBUG -->
<!-- THEME HOOK: 'node' -->
<!-- FILE NAME SUGGESTIONS:
  * node--7--full.html.twig
  * node--7.html.twig
  * node--page--full.html.twig
  * node--page.html.twig
  * node--full.html.twig
  x node.html.twig
-->
<!-- BEGIN OUTPUT from 'themes/bootstrap/templates/node/node.html.twig' -->
▼<article data-history-node-id="7" data-quickedit-entity-id="node/7" role="arti
quickedit-entity-instance-id="0">
  ::before
  <div data-quickedit-id="node/7" data-quickedit-id="node/7" data-quickedit-id="node/7">
```

Overriding templates

- Copy template file from base location into your theme folder
- Rename if targeting more specific subset of areas

```
-->  
<!-- BEGIN OUTPUT from 'themes/custom/flossy/templates/layout/page.html.twig' -->  
<!-- Google tag (gtag.js) -->
```

Theme Hook Suggestions

- Add hook to module or theme and modify
- Debug to see new theme suggestions

```
/**  
 * Implements hook_theme_suggestions_HOOK_alter().  
 */  
function hook_theme_suggestions_node_alter(array &$suggestions, array $variables) {  
  $logged_in = \Drupal::currentUser()->isAuthenticated();  
  if ($logged_in) {  
    $suggestions[] = 'node__authenticated';  
  }  
}
```

3.

Twig Syntax

Identifiers

- `{{ ... }}` :
Say something
- `{% ... %}` :
Do something
- `{# ... #}` :
Create comments

```
<p>output: {{ name_of_variable }}<p>
```


Identifiers

- `{{ ... }}` :
Say something
- `{% ... %}` :
Do something
- `{# ... #}` :
Create a comment

```
<ul>  
|..{% for item in items %}  
|..|..<li>{{ item }}</li>  
|..{% endfor %}  
</ul>
```

Identifiers

- `{{ ... }}` :
Say something
- `{% ... %}` :
Do something
- `{# ... #}` :
Create a comment

```
{# my comment #}
```

```
{# commented out code  
|··{{ variable }}  
#}
```

Tags

- Control structures
- Conditionals
- Extend templates

```
{% set foo = 'bar' %}
```

```
{% apply upper %}  
|..This text becomes uppercase  
{% endapply %}
```

```
{% if online == false %}  
|..<p>Our website is in maintenance mode.</p>  
{% endif %}
```

Filters

- Separated from variable by a pipe symbol
- May accept arguments
- Chain filters

```
{{ name_of_variable|name_of_filter }}
```

```
{{ var|default('var is not defined')}}
```

```
{{ variable|truncate(20)|title }}
```

```
{% if user|length > 10 %}  
| ...  
{% endif %}
```

Functions

- Generate content
- Accepts arguments
- Custom functions

```
{{ random(['bike', 'train', 'car']) }}
```

```
{% if date(user.created_at) < date('-2days') %}  
|·{# do something #}  
{% endif %}
```

```
{{ block("title", "common_blocks.twig") }}
```

Drupals Twig Functions

- Drupal specific functions

```
{{ attach_library('classy/node') }}
```

```
<a href="{{ url('view.frontpage.page_1') }}">{{ 'Front Page'|t }}</a>
```

```
{{ link('Drupalize.Me', 'https://drupalize.me', {'class': ['external'], 'role': ['link']}) }}
```

```
<!-- Output -->
```

```
<a href="https://drupalize.me" class="external" role="link">Drupalize.Me</a>
```

Custom Functions and Filters

- Create file in modules src/twig directory

```
class AppExtension extends AbstractExtension {  
  
    /**  
     * {@inheritdoc}  
     */  
    public function getFunctions() {  
  
        return [  
            new TwigFunction('custom_function', [$this, 'customFunction']),  
        ];  
    }  
  
    /**  
     * Example of a custom function.  
     */  
    public function customFunction($param) {  
        return "Processed: " . $param;  
    }  
  
}
```

Custom Functions and Filters

- Register the class as a new service
- Tag it with twig.extension
- Clear cache

```
services:  
  custom_module.twig.extension:  
    class: Drupal\custom_module\Template\TwigExtension  
    tags:  
      - { name: twig.extension }
```


4.

Twig Inheritance

Includes

- Has access to active content variables
- Can add multiple includes to template

```
header.html.twig
```

```
<header>  
|..<p>Here is our header content.</p>  
</header>
```

```
footer.html.twig
```

```
<footer>  
|..<p>Here is our footer content.</p>  
</footer>
```

```
page.html.twig
```

```
<div class='page-component'>  
|..{% include('header.html.twig') %}  
|..<main>Here is the main content on the page.</main>  
|..{% include('footer.html.twig') %}  
</div>
```

Includes

- Can pass additional variables

page.html.twig

```
<div class='page-component'>
  ..{ include('header.html.twig' with {
  ... 'brandName': 'ColdfrontLabs',
  ... 'socialMedia': ['facebook', 'instagram'],
  ... 'hexColor': '#162461'
  ..}) %}
  ..<main>Here is the main content on the page.</main>
  ..{% include('footer.html.twig') %}
</div>
```

header.html.twig

```
<header style='background-color:{{hexColor}}'>
  ..<h1>Welcome to {{ brandName }}</h1>
  ..<p>Follow us on {{ socialMedia|join(' | ') }}</p>
</header>
```

Extend & Block Overrides

- First tag in template
- Modify existing templates
- Uses block tags to override certain blocks

```
block.html.twig

<div class='block'>
  ··{% block headline %}
  ··|··{{ content.headline }}
  ··{% endblock %}
  ··{{ content }}
  ··{% block related %}
  ··|··{{ content.related }}
  ··{% endblock %}
</div>
```

```
block-news.html.twig

{% extends 'block.html.twig' %}

{% block headline %}
|··<div class='headline-news'>{{ content.headline }}</div>
{% endblock %}
```

Embed

- Combines behaviors of include and extends
- Allows block overrides
- Takes same arguments as include tag

```
vertical_boxes.html.twig

<div class='top-box'>
  ..{% block top %}
  ..|.. Top box default content.
  ..{% endblock %}
</div>

<div class='bottom-box'>
  ..{% block bottom %}
  ..|.. Bottom box default content.
  ..{% endblock %}
</div>
```

```
<div class='news'>
  ..{% embed 'vertical_boxes.html.twig' %}
  ...{% block top %}
  ...|.. Some content for the top box.
  ...{% endblock %}

  ...{% block bottom %}
  ...|.. Some content for the bottom block.
  ...{% endblock %}
  ..{% endembed %}
</div>
```

Embed

- Embed can be used in conjunction with extends

```
{% extends 'base-layout.html.twig' %}

{% block content %}
  ..{% embed 'alert.html.twig' with { type: 'info' } %}
  ..|..{% block content %}
  ..|..|..<p>This is an informational message on the custom page.</p>
  ..|..|..{% endblock %}
  ..|..{% endembed %}
  ..{% endblock %}
{% endblock %}
```

5.

Debug

Viewing Variables

- Use breakpoints with Xdebug
- Use the dump function in the twig file

```
▼ Locals
▼ $context = array(34)
  > elements = array(28)
    theme_hook_original = "node"
  > attributes = Drupal\Core\Temp
  > title_attributes = Drupal\Cor
  > content_attributes = Drupal\C
  > title_prefix = array(0)
  > title_suffix = array(0)
  db_is_active = true
  is_admin = false
  logged_in = false
  env = "local"
  username = "Anonymous"
```

```
array:34 [▼
  "elements" => array:28 [▶]
  "theme_hook_original" => "node"
  "attributes" => Drupal\...\Attribute {#26326 ▶}
  "title_attributes" => Drupal\...\Attribute {#26425 ▶}
  "content_attributes" => Drupal\...\Attribute {#25666 ▶}
  "title_prefix" => []
  "title_suffix" => []
  "db_is_active" => true
  "is_admin" => false
  "logged_in" => false
  "env" => "local"
  "username" => "Anonymous"
  "user" => Drupal\...\AccountProxy {#24216 ▶}
```


Recap

FAST

SECURE

Flexible





THANKS!

Any questions?

You can contact me at scampbell@coldfrontlabs.ca



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