COMPATIBLE TEMPLATES
one syntax, many engines

@jbmoelker

ONE TEMPLATING SYNTAX

TEMPLATE EXPRESSIONS

```
{% extends "base.html" %}

{% block header %}
<h1>{{ title }}</h1>
{% endblock %}

{% block content %}
<ul>
  {% for name, item in items %}
  <li>{{ name }}: {{ item }}</li>
  {% endfor %}
</ul>
{% endblock %}
```

MANY ENGINES

NUNJUCKS

A rich and powerful templating language for JavaScript.

mozilla.github.io/nunjucks

Jinja2

django

Templates

Liquid

AND MORE...

Swig JS
(unmaintained)

Twig JS

Pongo 2

Jinjava

COMPATIBILITY

Template feature support per engine

🟩 = full support 🟨 = partial support 🟥 = none support

expressions

expressions	Django v1.10.1	Jinja2 v2.8.0	Liquid v3.0.6	Nunjucks v2.5.0	Swig v1.4.2	Twig v1.24.2	Twigjs v0.9.5
comparisons	partial	partial	partial	partial	partial	partial	partial
math	none	full	partial	full	partial	full	full
reserved-words	full	full	full	full	none	full	partial

filters

filters	Django v1.10.1	Jinja2 v2.8.0	Liquid v3.0.6	Nunjucks v2.5.0	Swig v1.4.2	Twig v1.24.2	Twigjs v0.9.5
abs	none	partial	full	full	none	full	full
batch	none	full	full	full	none	full	full
capitalize	none	full	full	partial	full	none	full
center	none	full	full	full	none	none	none
default	none	partial	partial	full	partial	full	partial
dictsort	none	full	none	full	none	none	none
dump	none	none	full	full	none	none	none
escape	partial	full	full	full	full	full	full
filesizeformat	none	full	full	none	full	full	full
first	partial	full	none	full	full	full	partial
float	none	full	partial	full	none	none	none
indent	none	full	partial	full	none	none	none
int	none	full	partial	full	none	none	none
last	partial	partial	partial	partial	full	full	partial
length	partial	partial	partial	partial	none	partial	full
lower	full	full	full	partial	full	partial	full
upper	full	full	full	partial	full	partial	partial

functions

functions	Django v1.10.1	Jinja2 v2.8.0	Liquid v3.0.6	Nunjucks v2.5.0	Swig v1.4.2	Twig v1.24.2	Twigjs v0.9.5
cycle	none	none	none	none	none	full	full
cycler	none	full	none	full	none	none	none
range	partial	partial	none	partial	none	partial	partial

tags

tags	Django v1.10.1	Jinja2 v2.8.0	Liquid v3.0.6	Nunjucks v2.5.0	Swig v1.4.2	Twig v1.24.2	Twigjs v0.9.5
if	full	full	partial	full	partial	partial	
raw	none						

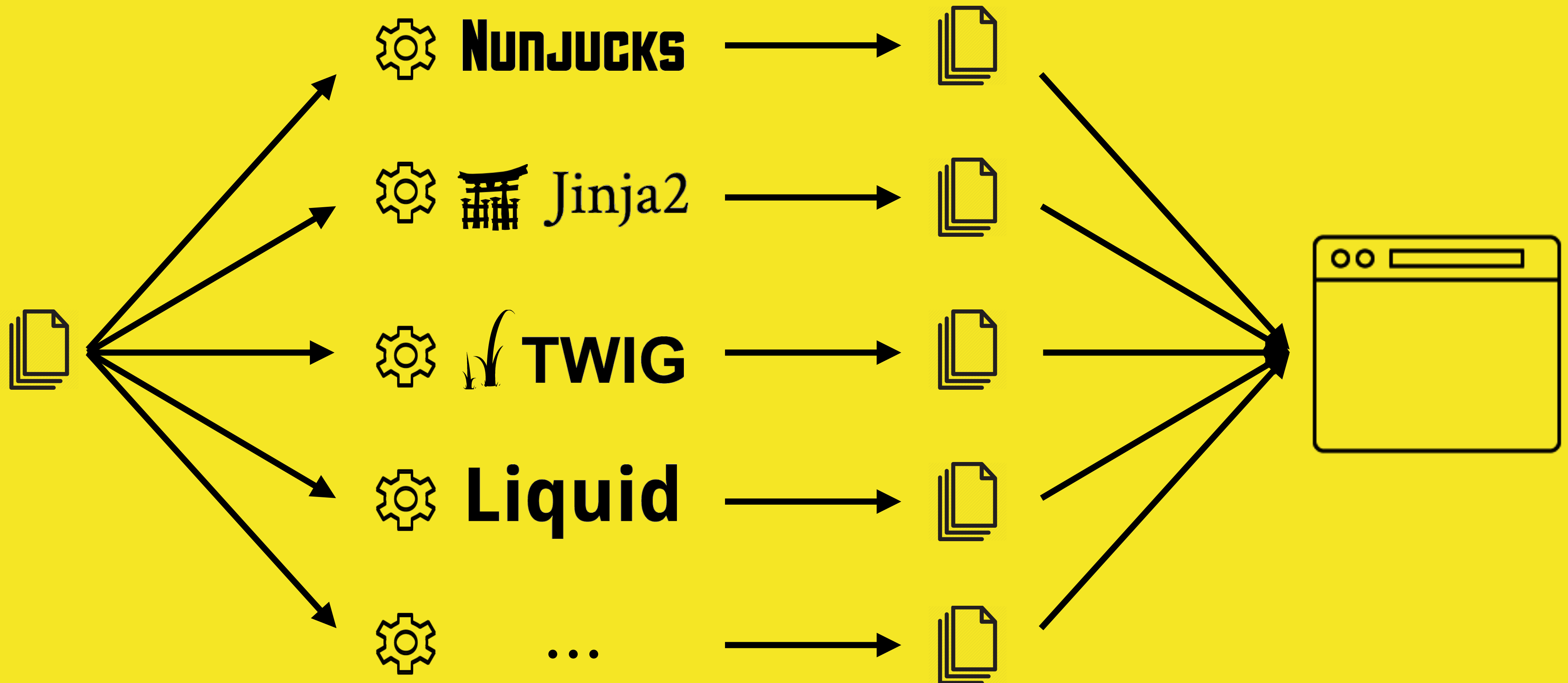# COMPATIBILITY TEST SETUP

fixtures   render engine   output   compare

TEST: FIXTURES

```
tests
  expressions
    comparisons
      ends-with.html
      equal-to.html
      equal-to.json
      greater-than.html
      greater-than-or-equal.html
      less-than.html
      less-than-or-equal.html
      matches.html
      matches.json
      not-equal-to.html
      not-equal-to.json
      starts-with.html
      strict-equal-to.html
      strict-not-equal-to.html
    logic
    math
    reserved-words
    whitespace-control
  filters
  functions
  tags
```

```
{% if varX == varY %}
`varX` is equal to `varY`
{% endif %}


{
  "varX": "Templates",
  "varY": "Templates"
}
```

RENDER WITH EACH ENGINE

```javascript
const env = new nunjucks.Environment(
    new nunjucks.FileSystemLoader(inputDir),
    { autoescape: true }
);


function renderTemplate(templateName, data) {
    const filename = templateName + config.templateExt;
    env.render(filename, data, (err, output) => {
        if (err) {
            saveError(templateName, err);
        } else {
            saveFile(outputDir + filename, output);
        }
    });
}
```

OUTPUT | PER ENGINE

OUTPUT

```
▼ 📁 output
  ▶ 📁 django
  ▶ 📁 jinja2
  ▶ 📁 liquid
  ▼ 📁 nunjucks
    ▼ 📁 expressions
      ▼ 📁 comparisons
          📄 ends-with.error.log
          🌱 equal-to.html
          🌱 greater-than.html
          🌱 greater-than-or-equal.html
          🌱 less-than.html
          🌱 less-than-or-equal.html
          📄 matches.error.log
          🌱 not-equal-to.html
          📄 starts-with.error.log
          🌱 strict-equal-to.html
          🌱 strict-not-equal-to.html
      ▶ 📁 math
      ▶ 📁 reserved-words
    ▶ 📁 filters
    ▶ 📁 functions
    ▶ 📁 tags
  ▶ 📁 swig
  ▶ 📁 twig
  ▶ 📁 twigjs
```

Test: strict-equal-to

Template

```
{% if 1234 === 1234 %}
1234 not strict equal to 1234
{% endif %}
```

Django (error) *v1.10.1*
```
Could not parse the remainder:
'===' from '==='
```

Jinja2 (error) *v2.8.0*
```
unexpected '='
```

Liquid (error) *v3.0.6*
```
Liquid error: Unknown operator
===
```

Nunjucks *v2.5.0*
```
1234 not strict equal to 1234
```

Swig *v1.4.2*
```
1234 not strict equal to 1234
```

Twig (error) *v1.24.2*
```
Unexpected token "operator" of
value "=".
```

Twigjs (error) *v0.9.5*
```
TypeError: Cannot read property
'forEach' of undefined
```

Template feature support per engine

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if	full	full	partial	full	partial	partial	partial
raw	none			full			

CHALLENGES

- many languages

- package management

- Travis configuration

- API differences

- DRY cross language

- meaningful tests

```yaml
language: php
php: '7.0'

install:
- curl -o ~/.nvm/nvm.sh https://raw.githu
- bash -c "nvm use $NODE_JS_VERSION" || t
- bash -c "source ~/.nvm/nvm.sh; nvm inst
- npm install
- pip install --user -r requirements.txt
- composer install
- gem install bundler
- bundle install

script:
- nvm use $NODE_JS_VERSION
- ./build.sh

after_success:
- bash ./scripts/deploy.sh
```

in short:
"We speak your
template language"

ROADMAP

ROADMAP

Cover all features

More engines

Better UI

Catchy name?

Improve compatibility
of all engines

AIM: IMPROVE COMPATIBILITY

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if							

DE VOORHOEDE

front-end developers