

Foodcritic

v1.2.1

Module Objectives

- After completing this module, you should be able to:
 - Use Foodcritic to avoid common cookbook errors

What is Foodcritic?

- A lint testing tool, or correctness checker
- Ensure you adhere to best practices for cookbook style
- Ability to write and use custom rules
- <http://foodcritic.io/>



Foodcritic

- A **code linting** tool for Chef
 - Checks **code correctness**
 - **Catches common mistakes** before they cause problems
 - Extensible & Configurable
 - Create new **rulesets**
 - Ignore existing rulesets
 - Integrates nicely into **CI pipelines**

Rules and Tags

- All rules are numbered, e.g.
 - *FC002* - "Avoid string interpolation where not required"
 - *FC034* - "Unused template variables"
- Rules can be categorized and tagged, e.g.
 - 'style'
 - 'portability'
 - ...

FC002: Avoid string interpolation where not required

style strings

When you declare a resource in your recipes you frequently want to reference dynamic values such as node attributes. This warning will be shown if you are unnecessarily wrapping an attribute reference in a string.

Unnecessary string interpolation

This example would match the FC002 rule because the `version` attribute has been unnecessarily quoted.

```
# Don't do this
package "mysql-server" do
  version "#{node['mysql']['version']}"
  action :install
end
```

Modified version

This modified example would not match the FC002 rule:

```
package "mysql-server" do
  version node['mysql']['version']
  action :install
end
```

Abide by Best Practices

- There are 50+ rules in Foodcritic; your cookbooks should pass them (or have a good reason if they do not)
- You can write your own rules.
- Extra community-contributed rules:
<http://www.foodcritic.io/#extra-rules>

The Problem and the Success Criteria

- **The Problem:** We want to make sure our Apache cookbook follows best practice for Chef code
- **Success Criteria:** We use Foodcritic to check our cookbook before committing it

Foodcritic

- If you are using the ChefDK, you already have foodcritic installed
- Located at: `.\chefdk\embedded\bin\foodcritic`

Exercise: Check Cookbook Correctness with Foodcritic

```
$ foodcritic cookbooks/apache
```

```
FC003: Check whether you are running with chef server before using server-  
specific features: ./recipes/default.rb:43  
FC003: Check whether you are running with chef server before using server-  
specific features: ./recipes/iplogger.rb:1  
FC008: Generated cookbook metadata needs updating: ./metadata.rb:2  
FC008: Generated cookbook metadata needs updating: ./metadata.rb:3  
FC009: Resource attribute not recognised: ./recipes/default.rb:27  
FC016: LWRP does not declare a default action: ./resources/vhost.rb:1
```

Exercise: Narrow the Tests

```
$ foodcritic cookbooks/apache -t ~FC003 -t ~FC009
```

```
FC008: Generated cookbook metadata needs updating: ./metadata.rb:2  
FC008: Generated cookbook metadata needs updating: ./metadata.rb:3  
FC016: LWRP does not declare a default action: ./resources/vhost.rb:1
```

Exercise: Fix the Cookbook to Clear the Errors

```
$ foodcritic cookbooks/apache -t ~FC003 -t ~FC009
```

```
(no output)
```

- Edit your cookbook to fix the **FC008** & **FC016** errors, then rerun your Foodcritic
- Refer to <http://www.foodcritic.io/> to find the errors
- No output means no errors!

Running Certain Tests

- Run only certain categories of test

```
$ foodcritic <path> -t style
```

- Run specific tests

```
$ foodcritic <path> -t FC034
```

- Exclude specific tests

```
$ foodcritic <path> -t ~FC034
```

Saving Foodcritic Rules

```
$ foodcritic -t services -t ~style -t ~FC002 .
```

```
$ echo "services,~style,~FC002" > .foodcritic
```

- When you have defined your set of tag options, you can save them to a file called **.foodcritic**
- Foodcritic will read that file upon execution, and use those as the default options

Best Practice: Run Foodcritic Before Each Commit

- Always **check** in correct code!
- Make **Foodcritic** a part of your **build pipeline** with commit hooks or other methods
- The Foodcritic web page has extensive documentation & examples showing how to build Foodcritic rules into Jenkins or Travis-CI