Build Tools

THE FRONT-END SPECTRUM

Package Managers

Front-End Performance

JS Frameworks

JS Preprocessors

Process Automation

Code Quality

Build Tools

Testing

Back-End

Core

Text Editors

UI Frameworks

Responsible Web Design
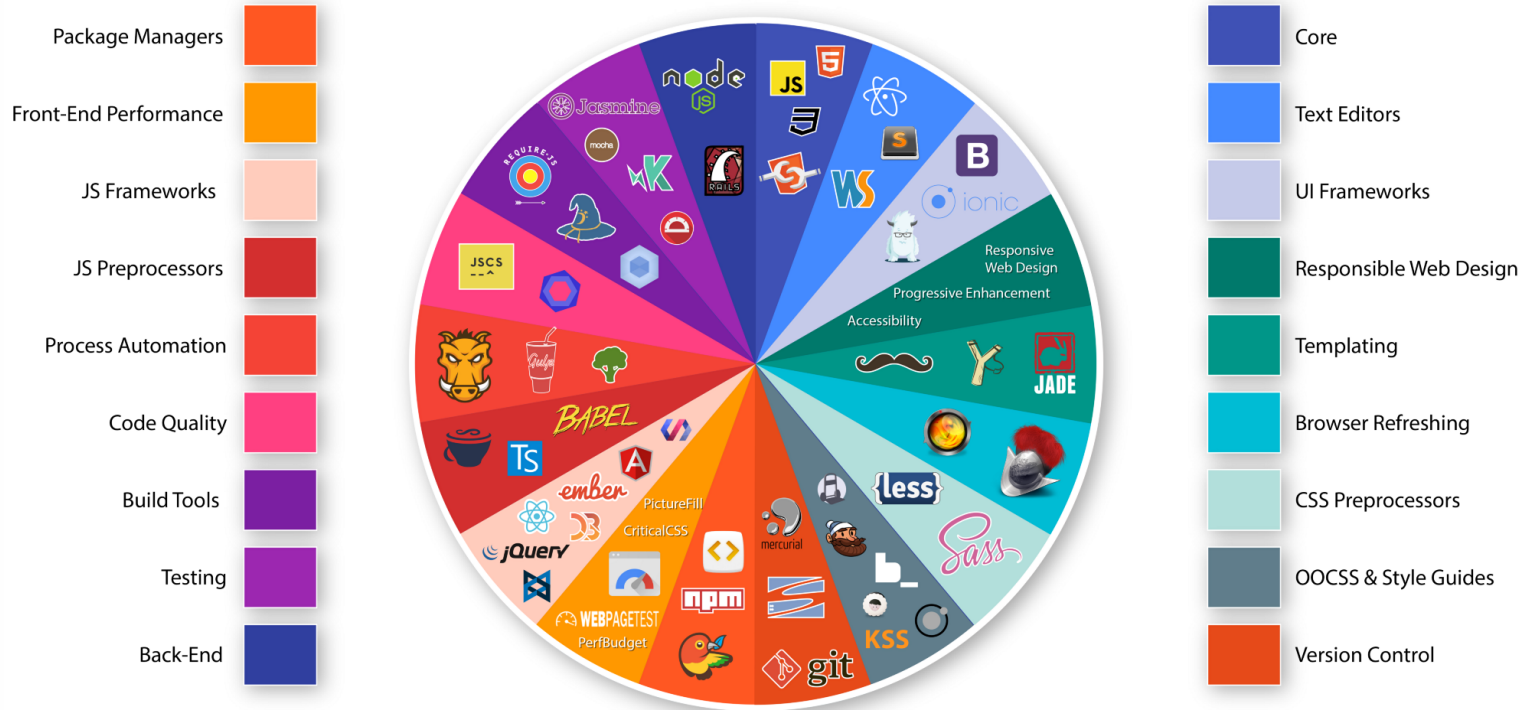
Templating

Browser Refreshing

CSS Preprocessors

OOCSS & Style Guides

Version Control

From The Front End Spectrum by Jeff Pelletier

What is a Build Tool?

Generic term for support software.

- A dependency is something needed for your project to run.
- A dev dependency is something needed for you to work on the project.
- Build tools are dev dependencies that help get your project working

Build Tools are...

- language specific
- project specific
- usually configured with a .dotfile
- a dime a dozen

Categories

- [Package Managers](#)
- [Task Runners](#)
- [Linters](#)
- [Other Tools](#)

What command installs things for us on MacOS?

Package Managers

A program to install/uninstall/manage other programs.

- Platform specific
- Language specific
- Use a command or file to get necessary dependencies

Platform

- debian/ubuntu uses **apt**
- fedora uses **yum**
- macOS can use **homebrew***
- Windows can use **chocolatey***

* Unofficial

Language

- JavaScript uses `npm`
- Python uses `pip`
- PHP uses `composer`
- Ruby uses `gem`

Almost all of these are unofficial.

Task Runners

A program to run scripts or complex commands.

- Language specific
- Range from simple to complex
- Easy for a new person to get started in project

Task Runners for Front-End

- Make
- Grunt
- Gulp

Task Runners for Front-End

- Make
- Grunt
- Gulp
- npm

Linters

A program to analyze the quality of code.

- Combine with a task runner to analyze when code changes
- Combine with version control to not allow a commit if quality is too low
- Usually according to a set of rules
- You can write your own rules

Linters

- HTML: htmlhint, tidy
- CSS: csslint, stylelint
- JS: jshint, eslint, prettier

Other Tools

- Control the language version
- Control editor settings
- Control deployment process

The possibilities are endless...

"So how can we make HTML and CSS development easier?"