

# *Tools to Get Started with a Drupal 8 Project*

---

*Paola Garcia Cardenas*

Friday, January 31, 2020

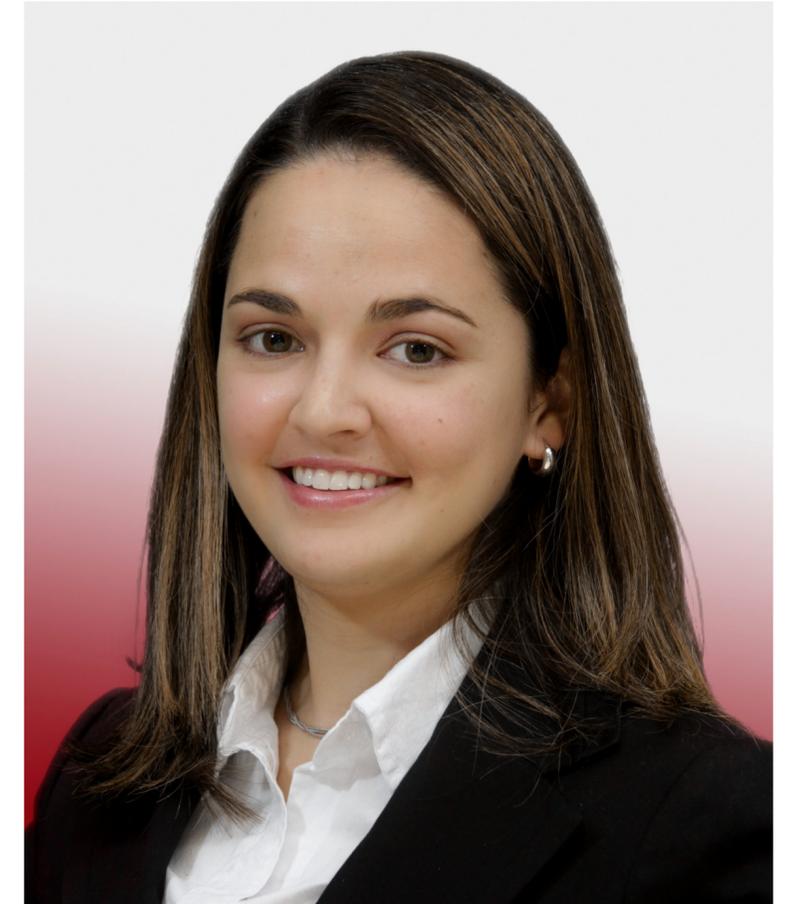
**bixal**

# *Introduction*

- About Me
- Tools We Will Look Into
  - Individual Tools
- Key Takeaways
- Q&A

# About Me

- Paola Garcia Cardenas
- Costa Rica
- Soccer
- Run
- 2 dogs & 2 cats



# About Me

- Drupal Front-end Developer, Bixal  
HTML, CSS, SASS, Javascript, PHP
- Computer Science Adjunct, STAC
- Cybersecurity student & InfoSec TA, NYU  
Kali Linux, Metasploit, ZAP, CTFs, AppSec, Ethical Hacking



# *Tools We Will Look Into*

1. Composer
2. Docker containers
  - Docker4Drupal
3. GitHub
  - Drupal-composer / drupal-project
  - Bixal / Drupal-project
4. Makefile (your best friend)

# *Why Composer?*

# Why Composer?



- Not a package manager
- Dependency management of libraries in PHP
- Libraries on a per-project basis
- Install/update libraries for you

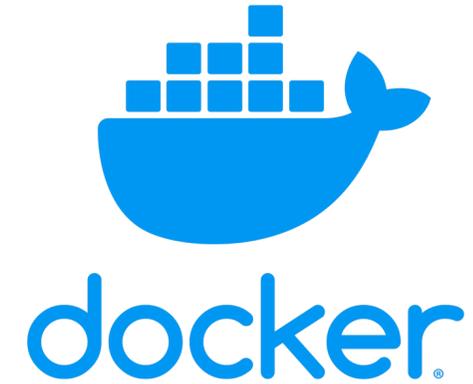
# Why Composer?



- Libraries on libraries on libraries = no worries
- Linux / Unix / macOS / Windows
- Install/run composer using a single command

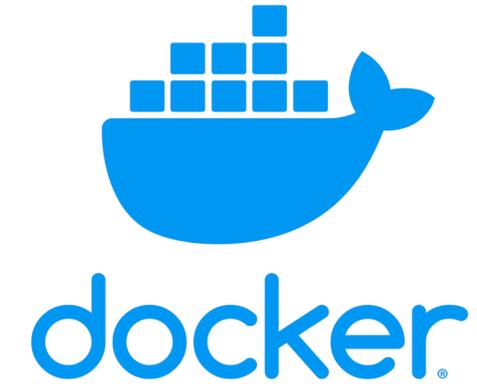
# ***Why Docker Containers?***

# *Why Docker Containers?*



- Standard unit of software
- Abstraction at the app layer
- Packages code and dependencies together

# *Why Docker Containers?*



- Lightweight, standalone
- Linux and Windows-based applications  
Software will run the same, regardless of infrastructure

# *Docker4Drupal by Wodby*

- Open Source
- Offers a Drupal 8 Stack (with services) to deploy and manage the app

# *Docker4Drupal by Wodby*

- Pre-configured docker-compose.yml
- Linux, Mac OS X, Windows

***GitHub***

**bixal**

# GitHub



- At a high level: cloud-base development platform that helps developers host and manage their code using a version control system, Git

# GitHub



- Developers store code within a repository (repo)
- Repositories can be public or private, and can be shared with other developers or team members for collaboration

# GitHub | Basics



- Repositories
- Forks
- Branches
- Commits
- Pull Requests
- Git

# GitHub | Basics



- Repositories: store code, folders, files
- Forks: creating a copy of someone else's repo
- Branches: abstract way of separating code
- Commits: saving changes to a branch
- Pull Requests: proposing a change to the main code
- Git: version control software

# *GitHub - Drupal-composer / drupal-project*

- Composer template for Drupal projects
- Easy install
- Management of site dependencies
- Structural tasks organized automatically

# *GitHub - Bixal / Drupal-project*

- Combines Docker4Drupal and Drupal-Composer
- Elements from Docker4Drupal
  - HTTP server
  - Drupal
  - Database

# *GitHub - Bixal / Drupal-project*

- Elements from Drupal-Composer
  - Composer yml file
  - Makefile
  - CI/CD

# *What's a Makefile?*

# *What's a Makefile?*

- File with a set of directives/tasks to be executed
- Make (utility) build automation tool
- Generates a specified task more efficiently

# What's a Makefile? - Examples

```
1 include .env
2
3 .PHONY: up down stop prune ps shell dbdump dbrestore uli cim cex
4
5 default: up
6
7 up:
8     @echo "Starting up containers for for ${PROJECT_NAME}..."
9     docker-compose pull
10    docker-compose up -d --remove-orphans
11
12 down:
13     @echo "Removing containers."
14     docker-compose down
15
16 stop:
17     @echo "Stopping containers for ${PROJECT_NAME}..."
18     @docker-compose stop
19
20 prune:
21     @echo "Removing containers for ${PROJECT_NAME}..."
22     @docker-compose down -v
23
24 ps:
25     @docker ps --filter name="${PROJECT_NAME}*"
26
27 shell:
28     docker exec -ti $(shell docker ps --filter name='${PROJECT_NAME}_php' --format "{{ .ID }}") sh
29
```

# *Quick Demo*

Up and running in less than 10 minutes!

**bixal**

# *Version checks*

- This demo installation assumes you have Git and Composer installed

# *Installation and running the project*

- Make sure you're running Docker in your computer. Personally, I use Docker Desktop for Mac.
- Docker for Windows only runs on Windows 10 Pro or Enterprise.
- Docker Toolbox is for older Mac or Windows systems that do not meet the requirements.

# Recap

- Composer
- Docker containers
- GitHub
- Makefile
- Setup Demo

# Resources

- <https://getcomposer.org/doc/00-intro.md>
- <https://getcomposer.org/doc/articles/troubleshooting.md#memory-limit-errors>
- <https://github.com/drupal-composer/drupal-project>
- <https://github.com/wodby/docker4drupal>

# Resources

- <https://github.com/Bixal/drupal-project>
- <https://opensource.com/article/18/8/what-how-makefile>
- <https://www.docker.com/resources/what-container>

*Questions?*

**bixal**

# *Thank You!*

paola.garcia@bixal.com

paolagarcia.codes

bixal.com

**bixal**