



Pilcrow: Our multi-year journey in building
an open source, open peer review application

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Pilcrow

Our multi-year journey in building an
open source, open peer review
application



Presented by: Kelly Sattler & Sruthin Gaddam
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Outline

- Introduction/Background
- Pilcrow basics and demo
- Project Management Methodology (Agile/Scrum)
- Team Building Tools
- Development platforms
- Q & A

Introduction and Background

Who We are:

- Kelly and Sruthin
- [Mesh Research](#)
- [Pilcrow](#)
 - [Public Philosophy Journal \(PPJ\)](#)
 - [Collaborative Community Review \(CCR\)](#)

Background:

- Dean Christopher Long's idea for a values based, open peer review
- Matrix for the first 5 years
- Rebooted by Mesh ~4 years ago
- Currently in Beta

Pilcrow's Basics

- Roles and Rights
- Layers
- Live Demo

Pilcrow Basics – Roles and Rights

Roles and Rights

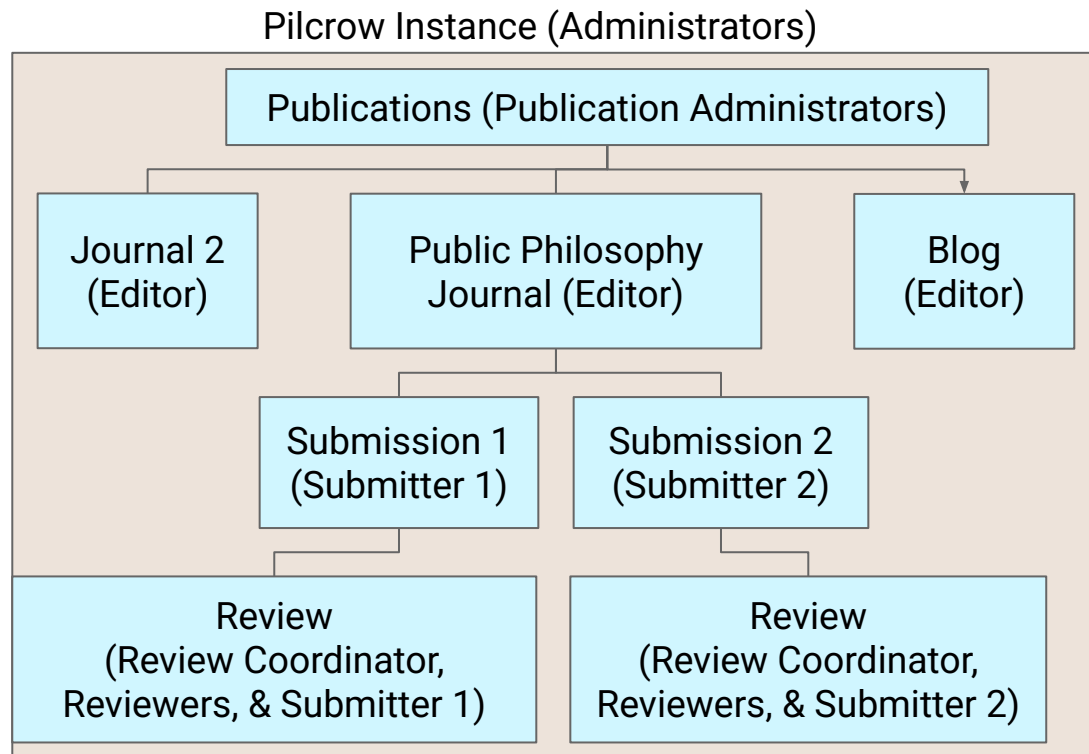
- Administrator
- Publication Administrator
- Editor
- Review Coordinator (RC)
- Reviewer
- Submitter

Action Relation Type	Action	Default Allowance by Role					
		Application Administrator	Publication Administrator	Editor	Review Coordinator	Reviewer	Submitter
Administration	Create a new publication	Allowed	Allowed	-	-	-	-
Administration	Manage the custom list of pertinence categories associated with suggestion highlights (A	Allowed	Allowed	Allowed	-	-	-
Administration	Modify the available actions of other individual users	Allowed	-	Allowed	-	-	-
Administration	Reset the password of other users	Allowed	-	-	-	-	-
Administration	Reset the password of other users of other users within own publication	Allowed	Allowed	-	-	-	-
Administration	Update the user details (name, email, username) of other users	Allowed	-	-	-	-	-
Administration	Update the user details (name, email, username) of other users within own publication	Allowed	Allowed	-	-	-	-
Administration	Unassign (self or other) manager of a publication	Allowed	Allowed	-	-	-	-
Administration	Unassign (self or other) administrator of an instance	Allowed	-	-	-	-	-
Administration	Unassign (self or other) editor of a publication	Allowed	Allowed	Allowed	-	-	-
Invitation	Invite a registered user of an instance as an application administrator of an instance	Allowed	-	-	-	-	-
Invitation	Invite a registered user of an instance as a publication administrator of a publication	Allowed	Allowed	-	-	-	-
Invitation	Invite a registered user of an instance as a review coordinator of a submission	Allowed	Allowed	Allowed	Allowed	-	-
Invitation	Invite a registered user of an instance as a reviewer of a submission	Allowed	Allowed	Allowed	Allowed	-	-
Invitation	Invite a registered user of an instance as an editor of a publication	Allowed	Allowed	Allowed	-	-	-
Invitation	Invite a registered user to create/upload a new submission as a submitter	Allowed	Allowed	Allowed	-	-	-
Invitation	Invite via email an unregistered person as a manager of a publication	Allowed	Allowed	-	-	-	-
Invitation	Invite via email an unregistered person as a review coordinator of a submission	Allowed	Allowed	Allowed	Allowed	-	-
Invitation	Invite via email an unregistered person as a reviewer of a submission	Allowed	Allowed	Allowed	Allowed	-	-
Invitation	Invite via email an unregistered person as an administrator of an instance	Allowed	-	-	-	-	-
Invitation	Invite via email an unregistered person as an editor of a publication	Allowed	Allowed	Allowed	-	-	-
Invitation	Invite via email an unregistered person to create/upload a new submission as a submitte	Allowed	Allowed	Allowed	-	-	-
Invitation	Receive an invitation to review a submission	Allowed	Allowed	Allowed	Allowed	Allowed	-
Invitation	Resend invitation emails to unregistered people	Allowed	-	-	-	-	-
Notification	Privately remind reviewers of elapsed deadlines	Allowed	Allowed	Allowed	Allowed	-	-
Notification	Privately remind reviewers of upcoming deadlines	Allowed	Allowed	Allowed	Allowed	-	-
Notification	Receive a notification at a designated interval after an elapsed deadline on a submission	Allowed	Allowed	Allowed	Allowed	Allowed	-
Notification	Receive a notification of when a reviewer's deadline is upcoming on a submission	Allowed	Allowed	Allowed	Allowed	Allowed	-
Notification	Receive a notification when a review is completed by another user on a submission	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
Notification	Receive a notification when another user responds an invitation to review a submission	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
Notification	Receive a notification when a reviewer's deadline elapses on a submission	Allowed	Allowed	Allowed	Allowed	-	-

Pilcrow Basics – Layers

Layers

- Pilcrow Application Instance
- Publications
- Submissions
- Reviews
- Dashboards - still being developed



Demo

[Recorded demo](#)

Project Management methodology

Agile/Scrum

- Sprints
- Sprint Planning
- “Daily” Stand-ups
- Sprint Reviews
- Sprint Retrospectives
- GitHub/Zenhub (Kanban)

The screenshot displays the Pilcrow Development board, a project management tool. The interface is organized into several columns representing different stages of the workflow:

- Product Backlog:** Contains 33 issues. Visible items include:
 - Pilcrow #1798: chore: migration from cypress to playwright
 - Pilcrow #1936: Commenting: Click on Comment to go to comment location in text/submission
 - Pilcrow #1838: Dependency Licenses
 - Pilcrow #1815: Update Integration Testing for Pages with Submission Tables
 - Pilcrow #1726: Assign User When Known Email is Provided
 - Pilcrow #85: Authentication - External Identity Provider Authentication
- Sprint Backlog:** Contains 3 issues. Visible items include:
 - Pilcrow #1905: Navigating Between Pages Sometimes Refreshes Current Page Instead
 - Pilcrow #1968: Email Verification Process is Buggy
 - Pilcrow #1971: Visual Problems with Unverified Email Banner and Verified Email Page
- In Progress:** Contains 2 issues. Visible items include:
 - Pilcrow #1922: Website Input Format is Too Demanding
 - Pilcrow #1974: feat: Update website input to accept more kinds of URLs
- Review/QA:** Contains 8 PRs. Visible items include:
 - Pilcrow #1944: fix(deps): update dependency @apollo/client to v3.8.5
 - Pilcrow #1948: chore(deps): update dependency @quasar/app-vite to v1.6.2
 - Pilcrow #1967: build(deps): bump get-func-name from 2.0.0 to 2.0.2 in /client
 - Pilcrow #1981: chore(deps): update dependency @quasar/quasar-app-extension-testing-unit-vitest to ~0.4.0
 - Pilcrow #1985: fix(deps): update dependency flat to v6
 - Pilcrow #1988: chore: update readme
 - Pilcrow #1989: chore(master): release 0.27.1
 - autorelease: pending
 - Pilcrow #1990: chore: save docker builds in registry
- Closed:** Contains ~346 issues. Visible items include:
 - Pilcrow #1992: chore(deps): update dependency markdownlint-cli to ~0.37.0
 - Pilcrow #1997: fix(deps): update dependency nuwave/lighthouse to v6.22.0
 - Pilcrow #1990: chore: update ci to use docker bake
 - Pilcrow #1996: Submission Workflow Design Sprint
 - Pilcrow #1996: chore(deps): update dependency phpunit/phpunit to v10.4.1
 - Pilcrow #1994: chore: update dependency doctrine/dbal to v3.7.0

The interface also includes a left sidebar with navigation options like Daily Feed, Board, Reports, Roadmap, Milestones, Notifications, Workflows, Create..., Edit workspace, View tutorials, Shortcuts, Help center, Get help from an expert, and Changelog. At the bottom, there's a button to 'invite your team' and a user profile for Kelly Sattler.

Team Building

Team Building

- Modified Scrum to work for us
- Team time & stand ups
- [Range.co](https://range.co)
- Team Norms
- Team members joining and leaving

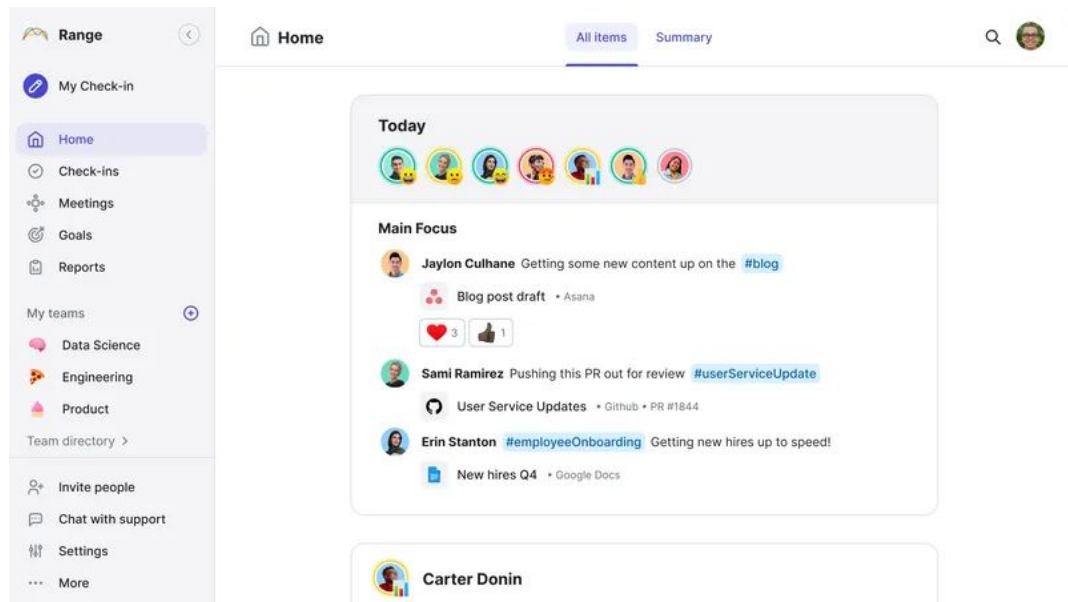


Image from range.co

Development Platforms

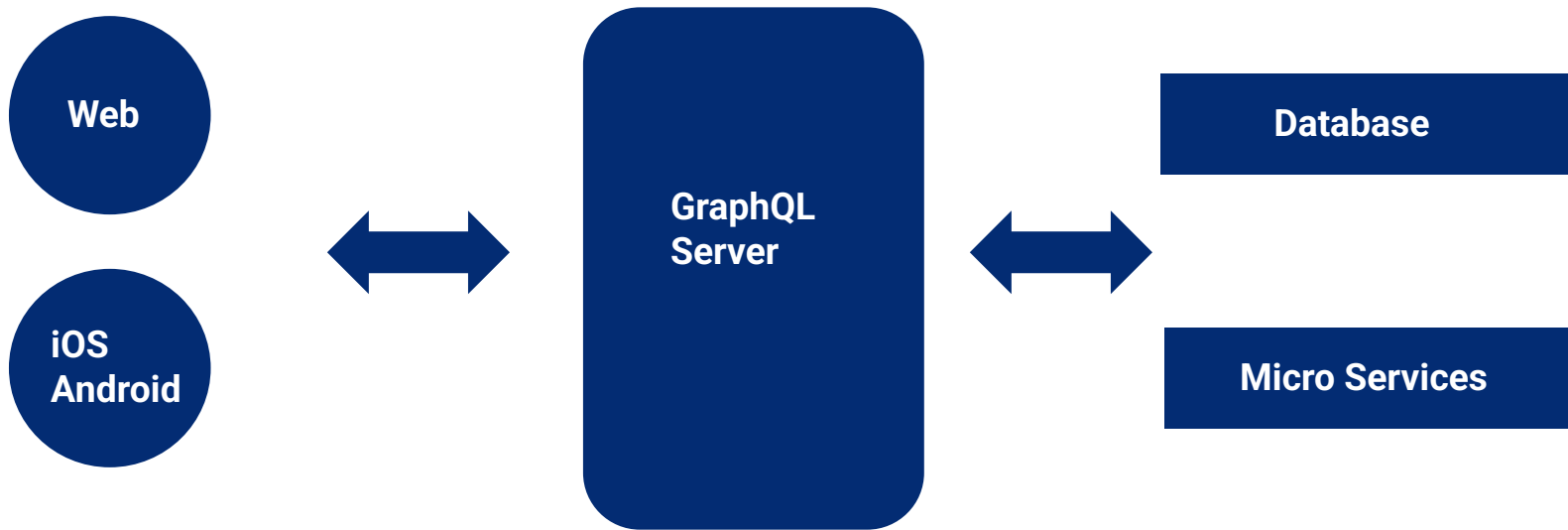
- GraphQL
- Laravel
- Lando
- Docker
- Vue.js
- Quasar
- Cypress → Playwright

GraphQL

- [GraphQL](#) is a query language for your API
- Unlike REST GraphQL has
 - Queries
 - Mutations
- GraphQL Schema
 - Schema Definition Language

```
"Adventurous feline  
exploring space"  
type SpaceCat {  
  name: String!  
  age: Int  
  missions: [missions]  
}
```

GraphQL



Laravel

- Explored several options
 - CakePHP, Falsk, Laravel, etc.
- A Progressive PHP Framework
- Compatible with GraphQL via Lighthouse

Lando

- Quickly spin-up services
- Provides context specific tooling for the provided recipes
- Lando Recipes

```
lando init --recipe laravel  
--webroot public --name my-app
```

```
lando composer require  
squizlabs/php_codesniffer
```

Docker

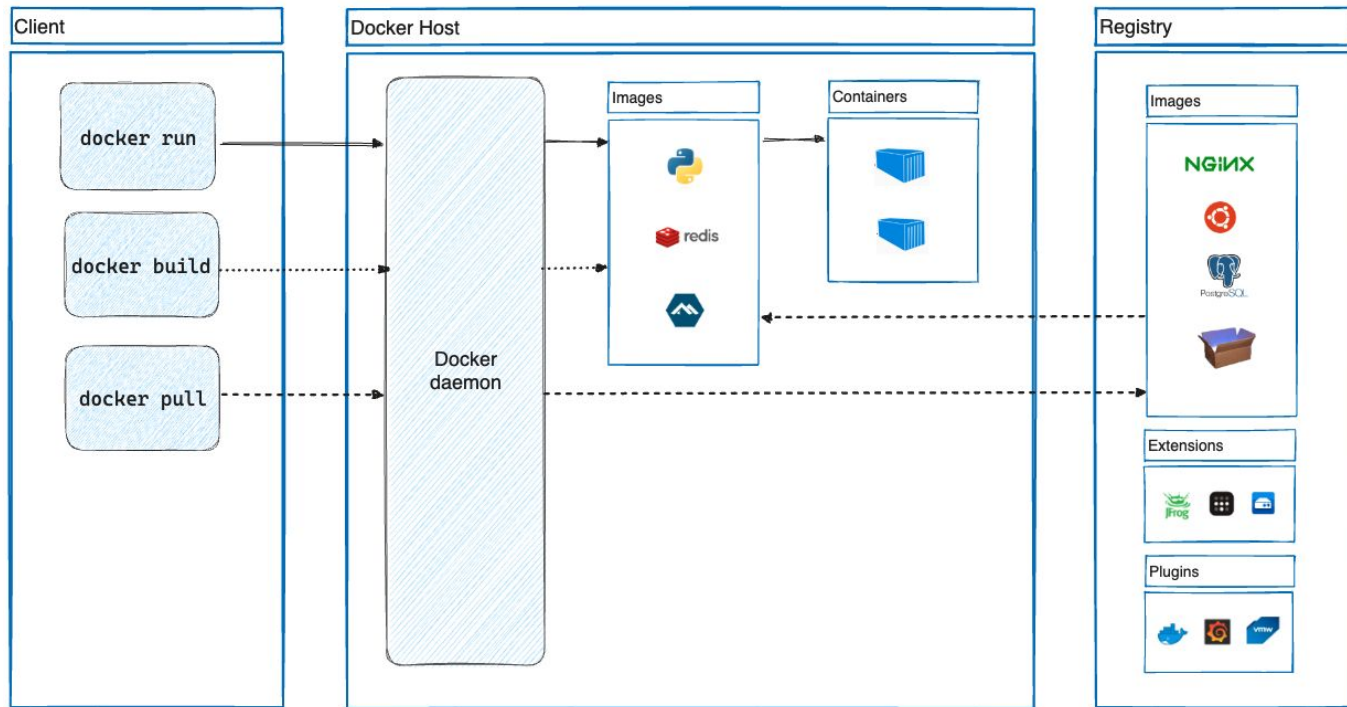
- Open-source project that automates the deployment
- Creates isolated development environments
 - Docker Images
 - Docker Containers
 - Docker Volumes

```
docker pull image_name
```

```
`docker pull php:latest`
```

```
docker run image_name
```


Docker



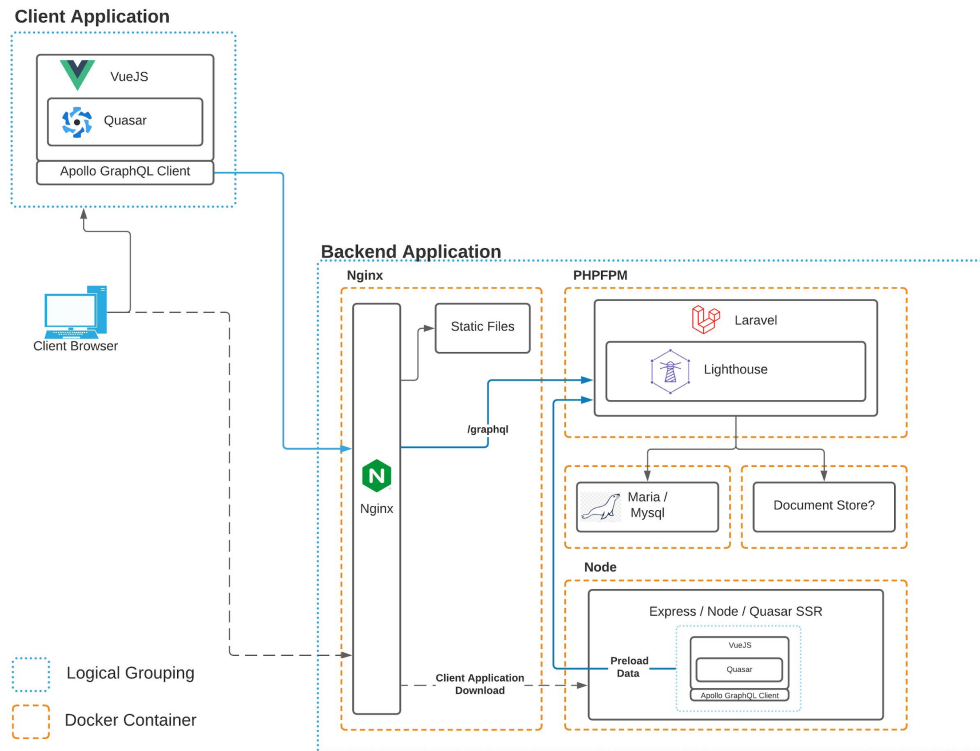
Quasar & Vue.js

- Building Progressive Web Apps
 - Capable
 - Reliable
 - Installable
- Component Library
- Components adjusted for all screen sizes
- Customizing components can be tricky
- Some of the components may not comply with A11y standards

Cypress → Playwright

- Offers end to end testing for web applications.
- Node js library made for browser automation
- Supports all modern rendering engines including Chromium, WebKit, and Firefox
- Offers native mobile emulation of Google Chrome for Android and Mobile Safari.
- API can be used with Python, Javascript, Typescript, .NET, and Java.

Pilcrow Application Architecture



Questions?

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Documentation

- [Pilcrow wiki](#)
- [Pilcrow guide](#)
- [Github repository](#)
- [Pilcrow Team Members](#)
- [Public Philosophy Journal \(PPJ\)](#)
- [Collaborative Community Review \(CCR\)](#)
- [Mesh Research](#)