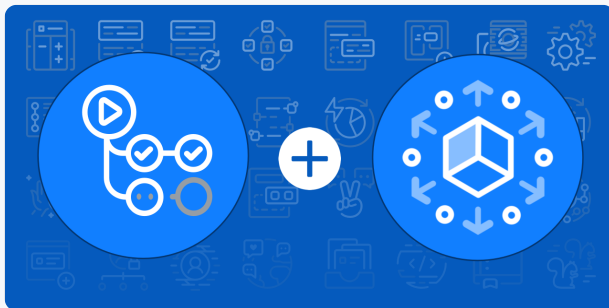# GitHub Actions: Publish to GitHub Packages

The GitHub Training Team

This course will walk you through using GitHub Actions to get your code in a deployable state once your CI workflows have completed.

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GitHub Actions makes it easier than ever to incorporate continuous delivery (CD) into your repositories. This course will teach you what is needed to test and deliver artifacts that are ready for deployment.

What you'll learn
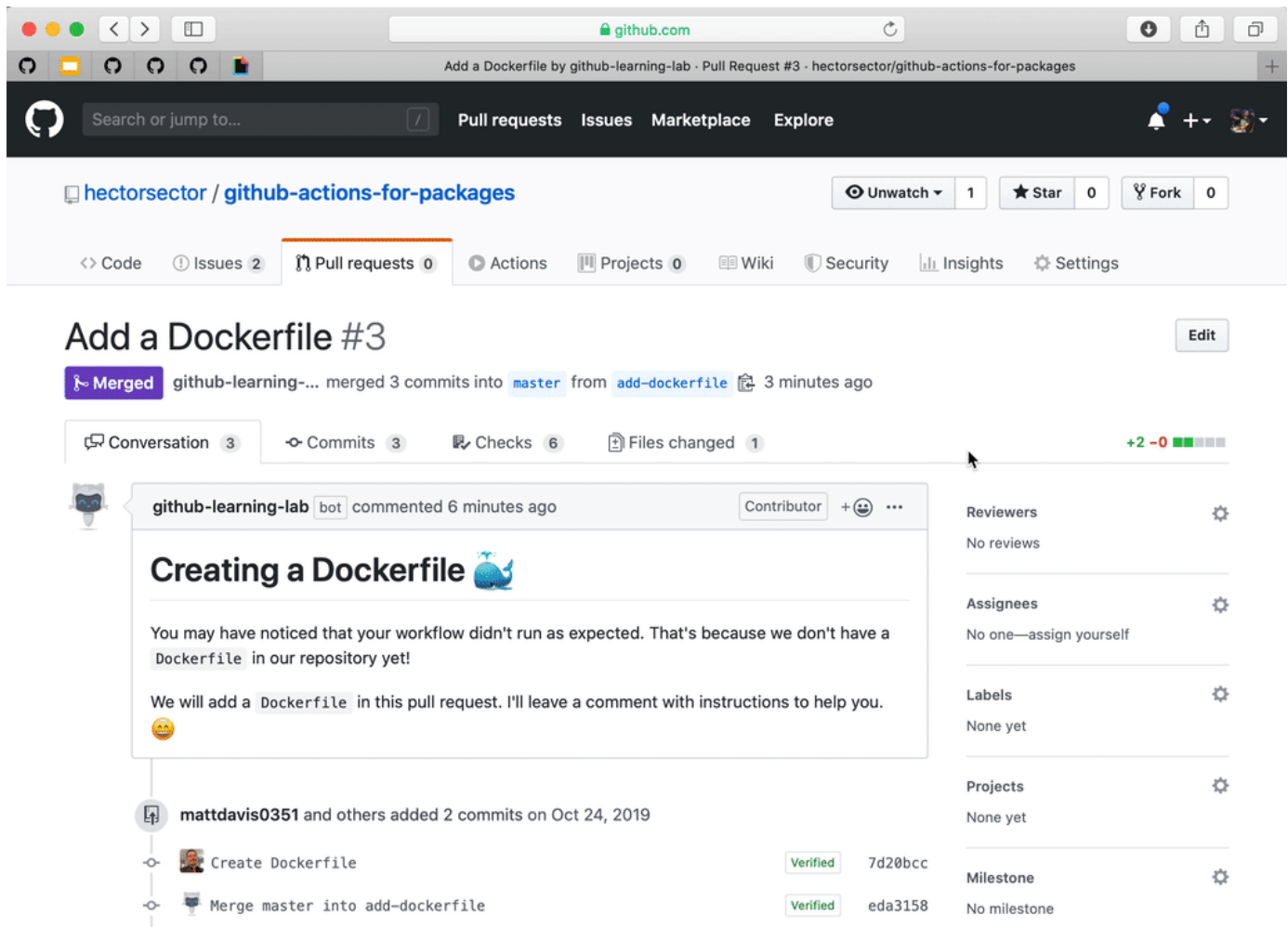
We'll answer common questions like:

- What is GitHub Packages?
- What role does package management play in the software development lifecycle?
- What is a container, a virtual machine, and Docker?

After taking this course, you'll be able to:

- Describe CD and why it is necessary
- Use and customize a repository workflow
- Create CD workflows that matches the team's needs and behaviors

- Use the repository's source code to build artifacts and store them in the GitHub Packages
- Save repository build artifacts
- Access saved build artifacts

What you'll build

- Completed source repository
- GitHub Actions workflow for creating the Docker image, tagging, and pushing to GitHub Packages
- Docker image pushed to GitHub Packages

Prerequisites

We recommend you first complete the following courses:

- Hello, GitHub Actions!
- GitHub Actions: Continuous Integration

Projects used

This makes use of the following open source projects. Consider exploring these repos and maybe even making contributions!

- [actions/checkout](): Action for checking out a repo
- [actions/upload-artifact](): Upload artifacts from GitHub's built-in artifact storage.
- [actions/download-artifact](): Download artifacts from GitHub's built-in artifact storage.
- [actions/setup-node](): Set up your GitHub Actions workflow with a specific version of node.js
- [mattdavis0351/actions/docker-gpr](): A GitHub Action to upload Docker images to the GitHub Package Registry.

Audience

Developers, DevOps engineers, full stack developers, cloud engineers

▶ Steps to complete this course 4

Tags

● GitHub Actions ● GitHub Packages ● Deployment ● Workflows ● Docker

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Average time to complete
17 minutes

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Latest release
March 17, 2020

Learning Paths that include this course

⚓ **GitHub Universe Workshops**
by The GitHub Training Team

Get ready to master GitHub Actions and learn

how they can help your team integrate DevOps
principles.

Users who took this course also took

📖 GitHub Actions: Using GitHub Script

by The GitHub Training Team

This course covers how to use GitHub Script
to quickly use octokit/rest in a GitHub
Actions...

📖 GitHub Actions: Continuous Integration

by The GitHub Training Team

Learn how to create workflows that enable you
to use Continuous Integration (CI) for your
projects.

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Create a
workflow.

What is GitHub Learning Lab?

Learn new skills by completing fun, realistic projects in your very own
GitHub repository.

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