



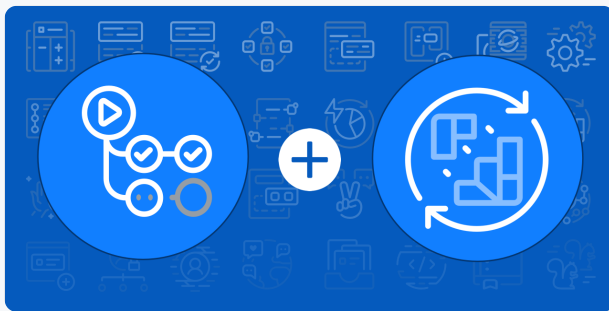
# GitHub Actions: Continuous Integration

 The GitHub Training Team

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

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GitHub Actions makes it easier than ever to incorporate continuous integration (CI) into your repositories. This course will get you from zero-to-CI by setting up two workflow files to automate the way you work.

## What you'll learn

We'll answer common questions like:

- What is Continuous Integration?
- How do GitHub Actions and workflows enable CI?
- What are build artifacts and how are they used?
- How can a unit testing framework be implemented with GitHub Actions?

And when you're done you'll be able to:

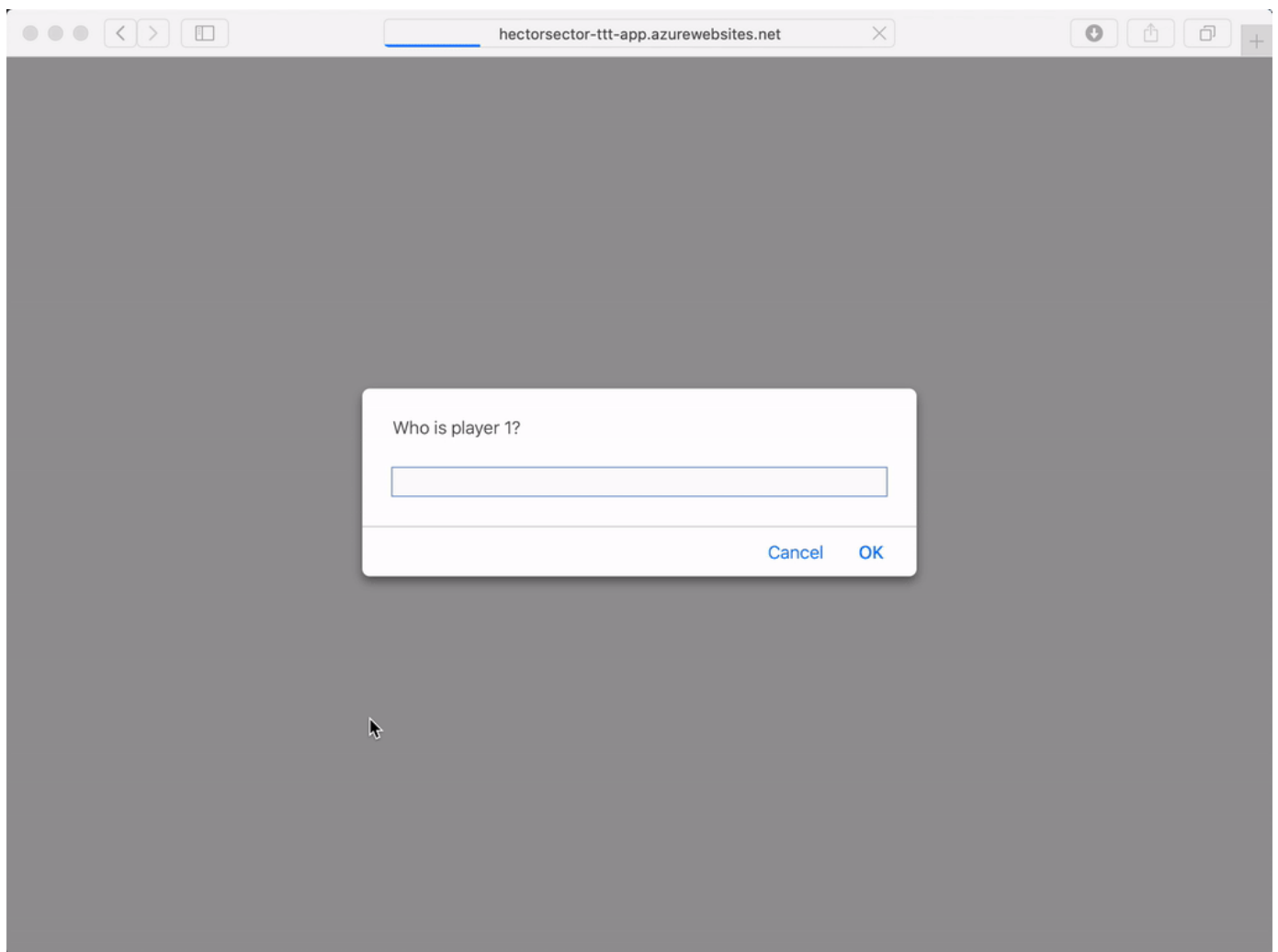
- Describe the importance of GitHub Actions in Continuous Integration
- Use and customize a templated workflow
- Create CI workflows that match a team's needs and behaviors

- Use a repository's source code and build artifacts across jobs in a workflow
- Implement a unit testing framework using GitHub Actions
- Create a workflow that runs tests and produces test reports
- Set up a matrix build to create build artifacts for multiple target platforms
- Save and access a repository's build artifacts
- Choose virtual environments for an application's CI needs

## What you'll build

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In this course, we'll be walking through CI using GitHub Actions, and creating a Tic Tac Toe game!



## Prerequisites

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Before you start, you should be familiar with GitHub. We recommend taking the following two Learning Labs prior to this course:

- [Introduction to GitHub](#)
- [Hello GitHub Actions!](#)

And a great follow-on course is

- [Continuous Delivery with GitHub Actions](#)

## Projects used

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This course makes use of the following technologies:

- [Node.js and npm](#)
- [Jest](#), a popular JavaScript testing framework.

## Audience

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Developers, DevOps Engineers, new GitHub users, students, teams

► Steps to complete this course 18

### Tags

 GitHub Actions  Workflows  CI  Continuous Integration  Integration

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### Average time to complete

175 minutes

### Free

All public courses on Learning Lab are  free.

 **Get help**

[Post on the GitHub Community Forum](#)

### Latest release

March 26, 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: Continuous Delivery with AWS**

by [The GitHub Training Team](#)

Create two deployment workflows using AWS.

### **GitHub Actions: Publish to GitHub Packages**

by [The GitHub Training Team](#)

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

### **GitH**

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Create a C  
workflow.



## What is GitHub Learning Lab?

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

## Ready to start learning?

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