

Week 8: Continuous Deployment

Background

Last week, you practiced using GitHub Actions to set up Continuous Integration (CI) workflows.

This week, you will extend your skills to Continuous Deployment (CD) by learning how to automatically deploy a static website using GitHub and GitHub Actions.

You can read the [Continuous Deployment](#) to get more idea for CD.

The following example is use Github Action to conduct CD.

Objective

You will:

- Create a simple static webpage.
- Push the project to GitHub.
- Set up a GitHub Actions workflow that automatically deploys the page to GitHub Pages whenever you push changes to the `master` branch.

Step-by-Step Instructions

1. Prepare Your Static Website

- Create a project folder locally on your computer.
- Inside the folder, create a basic `index.html` file. Example content:

```
<!DOCTYPE html>
<html>
<head>
  <title>LibConnect Demo</title>
</head>
<body>
  <h1>Hello, welcome to LibConnect Demo Site!</h1>
</body>
</html>
```

2. Initialize Local Git Repository

Open your terminal, navigate to your project folder, and run:

```
git init
git add .
git commit -m "Initial commit"
```

3. Create a New Repository on GitHub

- Go to [GitHub](#) and create a **new repository**.
- Name it appropriately (e.g., `webTest`).
- **Important:**
 - **Do not initialize with README, .gitignore, or License** (to keep it truly empty).
 - Set the repository visibility:
 - If you want to use GitHub Pages for free → **Set repository to Public**.

4. Connect Your Local Project to GitHub

Back in your terminal:

```
git remote add origin https://github.com/<your-username>/<your-repo-name>.git
git push -u origin master
```

5. Configure GitHub Pages

- In your GitHub repository:
 - Go to **Settings** → **Pages**.
 - Under **Build and Deployment** → **Source**, select **GitHub Actions**.

GitHub Pages

[GitHub Pages](#) is designed to host your personal, organization, or project pages from a GitHub repository.

Build and deployment

Source

Deploy from a branch ▾

GitHub Actions

Best for using frameworks and customizing your build process

✓ Deploy from a branch

Classic Pages experience

Use the instructions below to enable GitHub Pages for this repository. [Learn more about](#)

Visibility [\(GitHub Enterprise\)](#)

With a GitHub Enterprise account, you can restrict access to your GitHub Pages site by publishing it privately. You can use privately published sites to share your internal documentation or knowledge base with members of your enterprise. You can try GitHub Enterprise risk-free for 30 days. [Learn more about the visibility of your GitHub Pages site.](#)

Start free for 30 days

- **Choose** → "Static HTML"
(NOT Jekyll, since you are uploading a raw HTML file.)

GitHub Pages

[GitHub Pages](#) is designed to host your personal, organization, or project pages from a GitHub repository.

Build and deployment

Source

GitHub Actions ▾

Use a suggested workflow, [browse all workflows](#), or [create your own](#).

GitHub Pages Jekyll

By GitHub Actions

Package a Jekyll site with GitHub Pages dependencies preinstalled.

Configure

Static HTML

By GitHub Actions

Deploy static files in a repository without a build.

Configure

Workflow details will appear here once your site has been deployed. [View workflow runs.](#)

Custom domain

Custom domains allow you to serve your site from a domain other than `wlyang538.github.io`. [Learn more about configuring custom domains.](#)

- Click **Configure**. Then click Commit changes.. on the **top right** corner.
- Then you can see the `.github/workflows/xxxx.yml` on your github page.

Cancel changes

Commit changes...

itation

6. Push and Trigger Deployment

Whenever you push new commits to `master`, GitHub Actions will:

- Build the static site.
- Deploy it automatically to GitHub Pages.

You can check the progress under the **Actions** tab of your repository.

7. Verify Your Website

Once deployed, your site will be available at:

```
https://<your-username>.github.io/<your-repo-name>/
```

Check if your `index.html` page loads correctly!

Reminders

- **Repository must be Public** to use GitHub Pages for free.
- **Always pull before you push to** `master`
- **Do not leak sensitive information** in logs if you add environment variables later.