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## Build and Deploy Hugo Website to GitHub Pages  
## Author: Jérémie Lumbroso <lumbroso@seas.upenn.edu>  
## Date: 2024-02-24  
#####  
#####  
name: Build and Deploy GitHub Pages  
on:  
push:  
branches:  
- main # Set a branch to deploy  
jobs:  
deploy:  
runs-on: ubuntu-22.04  
steps:  
- name: Check Out Source Repository  
uses: actions/checkout@v3.5.1  
with:  
submodules: true # Fetch Hugo themes (true OR recursive)  
fetch-depth: 0 # Fetch all history for .GitInfo and .Lastmod  
- name: Initialize Hugo Environment  
uses: peaceiris/actions-hugo@v2.6.0  
with:  
hugo-version: "0.144.1"  
extended: true

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Please explain the following GitHub Actions YAML file line-by-line:

I'll break down the GitHub Actions YAML file line by line:



#### GitHub Actions Workflow Explanation

Click to open document

This workflow provides a comprehensive, automated solution for building and deploying a Hugo website to GitHub Pages. It handles everything from checking out the repository to generating and publishing the static site with minimal manual intervention.

can you give me a glossary of key terms i should know to understand this?

I'll create a glossary of key terms related to this GitHub Actions workflow and Hugo deployment.



#### GitHub Actions and Hugo Deployment Glossary

Click to open document

This glossary covers the key technical terms you'll encounter in the GitHub Actions workflow for Hugo deployment. It provides context for each term and explains its significance in the deployment process. Understanding these terms will help you better comprehend how the automated building and deployment of your website works.

Would you like me to elaborate on any of these terms or provide more context about how they interact in the workflow?

can you explain more succinctly what each line does?

← GitHub Actions Workflow Quick Explanation ×

## Workflow Breakdown

yaml

Copy

name: Build and Deploy GitHub Pages

- Names the workflow (what shows up in GitHub Actions tab)

yaml

Copy

```
on:  
push:  
branches:  
- main # Set a branch to deploy
```

- Triggers the workflow when code is pushed to the main branch

yaml

Copy

```
jobs:  
deploy:  
runs-on: ubuntu-22.04
```

- Defines a job that runs on an Ubuntu 22.04 virtual machine

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Publish

I'll provide a concise, line-by-line explanation of the GitHub Actions workflow:



#### GitHub Actions Workflow Quick Explanation

[Click to open document](#)

In essence, this workflow automatically takes your Hugo website's source code, builds it, and publishes it to GitHub Pages whenever you push changes to the main branch. Each step is designed to handle a specific part of the build and deployment process.

   [Retry](#)



Claude can make mistakes. Please double-check responses.