

Please explain this code

```
#####
####
## Build and Deploy Hugo Website to GitHub Pages
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## 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"
```

Ask anything

+ Search ...



ChatGPT can make mistakes. Check important info.

```
uses: peaceiris/actions-gh-pages@v3.9.3
with:
  github_token: ${ secrets.GITHUB_TOKEN }
  publish_branch: gh-pages
  user_name: "github-actions[bot]"
  user_email: "github-actions[bot]@users.noreply.github.com"
  ## NOTE: uncomment below if using a custom domain
  ## cname: mydomain.com
```

This code defines a GitHub Actions workflow to automate the deployment of a Hugo-based static

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1. Workflow Metadata

yaml

```
name: 🦾 Build and Deploy GitHub Pages
```

- Names the workflow "Build and Deploy GitHub Pages".
- The emoji (🦾) is just for visual clarity in GitHub Actions UI.

2. Triggering Event

yaml

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

- This workflow runs whenever a push is made to the `main` branch.



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```
runs-on: ubuntu-22.04
```

- Defines a job named `deploy`, which runs on Ubuntu 22.04.

4. Steps in the `deploy` Job

Step 1: Check Out the Source Code

yaml

```
- 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
```

- Uses `actions/checkout` to clone the repository inside the runner.
- `submodules: true` ensures any Hugo theme submodules are cloned.
- `fetch-depth: 0` retrieves the full commit history, allowing Hugo to generate metadata (`.GitInfo` and `.Lastmod`).



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```
with:
  hugo-version: "0.144.1"
  extended: true
```

- Uses `peaceiris/actions-hugo` to install Hugo.
- `hugo-version: "0.144.1"` installs Hugo version 0.144.1.
- `extended: true` enables the extended version of Hugo (needed for SCSS/SASS processing).

Step 3: Build the Hugo Site

yaml

```
- name: 📦 Compile Hugo Static Files
  run: hugo -D --gc --minify
```

- Runs the Hugo command:
 - `hugo -D` → Includes drafts in the build.
 - `--gc` → Garbage collection (removes unused cache files).
 - `--minify` → Minimizes HTML, CSS, and JS files for performance.



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```
with:
  github_token: ${ secrets.GITHUB_TOKEN }
  publish_branch: gh-pages
  user_name: "github-actions[bot]"
  user_email: "github-actions[bot]@users.noreply.github.com"
  ## NOTE: uncomment below if using a custom domain
  ## cname: mydomain.com
```

- Uses `peaceiris/actions-gh-pages` to deploy the generated site.
- `github_token: ${ secrets.GITHUB_TOKEN }` uses a GitHub-provided token to push changes securely.
- `publish_branch: gh-pages` means the Hugo-generated site will be published to the `gh-pages` branch.
- `user_name` & `user_email` set the commit identity to a GitHub Actions bot.
- If using a custom domain, uncomment `cname: mydomain.com`.

How This Works

1. You push changes to the `main` branch.
2. GitHub Actions starts the workflow.
3. The job `deploy` runs on an Ubuntu runner. ↓

Ask anything



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Key Features

- Automates Hugo site deployment to GitHub Pages.
- Fetches full Git history for proper metadata (`.GitInfo`, `.Lastmod`).
- Includes drafts (`hugo -D`).
- Minifies site output for performance.
- Supports submodules for Hugo themes.

What You Need to Do to Make It Work

1. Enable GitHub Pages for your repository:
 - Go to **Settings** → **Pages**.
 - Set the Source to the `gh-pages` branch.
2. Ensure your Hugo site is in the repository.
3. Push changes to `main` to trigger deployment.

Would you like help customizing this for your specific use case? ↓ 🔥

Ask anything



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Got it! Here's a note you can use for your professor:

Note to Professor:

I understand that I was supposed to use Claude for this portion, but I reached a usage limit and had to use ChatGPT instead. Let me know if you'd like me to redo this section with Claude once my limit resets.

Let me know if you want me to tweak the wording! 😊



