**Step 1: Set Up Git Workflow**

1. **Clone the Repository: Clone the repository to your local machine.**

git clone https://github.com/hshar/website.git

cd website

**Step 2: Create GitHub Actions Workflow**

1. **Create Workflow Directory: In your repository, create a directory for GitHub Actions workflows.**

mkdir -p .github/workflows

1. **Create Workflow File: Create a YAML file for the workflow.**

touch .github/workflows/ci-cd-pipeline.yml

1. **Define Workflow: Open the ci-cd-pipeline.yml file and add the following content:**

name: CI/CD Pipeline

on:

push:

branches:

- master

- develop

jobs:

build:

runs-on: ubuntu-latest

steps:

- name: Checkout code

uses: actions/checkout@v2

- name: Set up Docker Buildx

uses: docker/setup-buildx-action@v1

- name: Build Docker image

run: |

docker build -t website:${{ github.sha }} .

- name: Push to Docker Hub

if: github.ref == 'refs/heads/master'

run: |

docker tag website:${{ github.sha }} your-dockerhub-username/website:latest

echo "${{ secrets.DOCKER\_HUB\_PASSWORD }}" | docker login -u "${{ secrets.DOCKER\_HUB\_USERNAME }}" --password-stdin

docker push your-dockerhub-username/website:latest

- name: Deploy to Server

if: github.ref == 'refs/heads/master'

run: |

ssh -o StrictHostKeyChecking=no user@your-server-ip << 'EOF'

docker pull your-dockerhub-username/website:latest

docker stop website || true

docker rm website || true

docker run -d -p 82:80 --name website your-dockerhub-username/website:latest

EOF

**Step 3: Create Docker Container**

Dockerfile: Create a Dockerfile in the root of your repository with the following content:

FROM ubuntu:latest

RUN apt-get update && \

apt-get install -y apache2 && \

apt-get clean

COPY . /var/www/html

EXPOSE 80

CMD ["apache2ctl", "-D", "FOREGROUND"]

**Step 4: Configure Secrets**

1. **Add Secrets: Go to your GitHub repository settings and add the following secrets:**
   * **DOCKER\_HUB\_USERNAME: Your Docker Hub username.**
   * **DOCKER\_HUB\_PASSWORD: Your Docker Hub password.**
   * **SERVER\_IP: The IP address of your server.**
   * **SERVER\_USER: The username for SSH access to your server.**

**Step 5: Test the Pipeline**

1. Push Changes: Commit and push your changes to the repository.

* git add .
* git commit -m "Set up CI/CD pipeline"
* git push origin master