CICD and Docker: Objectives

What are the objectives of this project?

This project is to be hosted locally, if you have the resources to deploy it to the cloud, proceed, but keep the implementation local.

You have two broken starter templates, fix and push them to GitHub before.

Fix, troubleshoot, and deploy a containerized and automated CI/CD solution for a full-stack application consisting of a Next.js frontend and a Laravel backend. The solution must include containerization using Docker or Docker Compose, a CI/CD pipeline for the frontend using GitHub Actions or Jenkins, and a backend deployment pipeline using Jenkins or GitHub Actions.

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The project should automate the process of building, pushing, and deploying Docker images to Docker Hub or another container registry, and link the frontend and backend services in a production-ready environment. Additionally, create a script using Python or Bash to check for Docker Hub updates and ensure seamless deployment of the latest versions.

The final version of this project should be able to deploy the full-stack application, with the frontend and backend communicating effectively, and include a mechanism to monitor and update the deployed containers.You are free to explore alternative tools such as Kubernetes for orchestration, GitLab CI/CD or CircleCI for pipelines, and other container registries like GitHub Container Registry (GHCR) or AWS ECR. Modify the project while ensuring the expected output of a fully automated, containerized, and deployable full-stack application.

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