GoLang Web App Deployment on Kubernetes - Task Overview

Title: GoLang Web App with Date & Time - Docker & Kubernetes Deployment

Background/Task:

This task involves creating a simple GoLang web application that displays the current date and time. The application is containerized using Docker, published to DockerHub, and deployed on Kubernetes using a declarative approach. Finally, the application is exposed to the internet for public access.

Step-by-Step Instructions:

Step 1: Create and Dockerize the App

- Write a GoLang program that displays current date and time via HTTP.
- Host the source code on GitHub.
- Create a Dockerfile to containerize the app.
- Build and push the Docker image to DockerHub.

Step 2: Kubernetes Deployment

- Use declarative YAML files to deploy the app with 2 replicas.
- Define necessary resources: Deployment, Service, and Namespace (if needed).

Step 3: Expose to Internet

- Use LoadBalancer or NodePort to expose the service publicly.
- Tools like Qwiklabs, Play with Kubernetes, or GCP can be used for testing in real environments.

Resources:

- Qwiklabs: https://www.qwiklabs.com/

- Play with K8s: https://labs.play-with-k8s.com/

Expected Outcome:

- A live web app displaying date & time, accessible over the internet via Kubernetes-managed infrastructure.