**Kubernetes Security Scan - Problem Statement 3**

**Step 1: Create a GoLang Program and Push to DockerHub**

**1. Install Go**

Download and install Go from [GoLang official site](https://golang.org/dl/).

Verify installation:

go version

**2. Initialize and Run the Go Web Server**

mkdir datetime-app && cd datetime-app

go mod init datetime-app

go mod tidy

go run main.go

**3. Containerize the Application**

docker build -t your-dockerhub-username/datetime-app .

**4. Push the Image to DockerHub**

docker login

docker tag your-dockerhub-username/datetime-app your-dockerhub-username/datetime-app:latest

docker push your-dockerhub-username/datetime-app

**Step 2: Deploy to Kubernetes with 2 Replicas**

**1. Install Minikube (or use a cloud Kubernetes cluster)**

curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64

sudo install minikube-linux-amd64 /usr/local/bin/minikube

minikube start

**2. Deploy the Application to Kubernetes**

kubectl apply -f deployment.yaml

**Step 3: Expose the App to the Internet**

**1. Create and Apply a Service**

kubectl apply -f service.yaml

**2. Get the External IP**

kubectl get services

Visit **http://<EXTERNAL-IP>** to see the date & time.

**Where to Run This?**

**Locally** (Go + Docker + Minikube)  
 **Cloud K8s Providers:**

* Google Kubernetes Engine (GKE)
* AWS Elastic Kubernetes Service (EKS)
* Azure Kubernetes Service (AKS)
* **Play with Kubernetes** ([labs.play-with-k8s.com](https://labs.play-with-k8s.com/))
* **Qwiklabs** ([Qwiklabs](https://www.qwiklabs.com/))