**Andre Neptune Jr**

**AI510**

**PE08: Programming Exercise**

**Instruction**

**Resource:**

* Kubernetes, (n.d), Production-Grade Container Orchestration <https://kubernetes.io/>
* minikube, (n.d), minikube start, <https://minikube.sigs.k8s.io/docs/start/>
* Kubernetes, (n.d), Set up Ingress on Minikube with the NGINX Ingress Controller <https://kubernetes.io/docs/tasks/access-application-cluster/ingress-minikube/>

Your task for this Programming Exercise is to achieve a similar behavior as HOS08A but deploy a newly built container with a minor modification to the configuration YAML file.

1. Create duplicate of the “hos\_config.yaml” file and change file name to “pe\_config.yaml”
2. From the copied “hos\_config.yaml” file, follow around “!!!! Edit this for PE” comment to review where the edits are required.
3. For the image, use your own docker image with a new name and server content instead of the image used in HOS08A.

**Note**: You can delete/clean up the minikube cluster by running the minikube delete command after the PE.

**Submit the items below to the PE submission page:**

1. The GitHub link of your image contents, and “pe\_config.yaml” config script commits.
2. Provide a 20 to 50 words analysis or thoughts for setting up a local web application backend with the screenshot after completing task step 3.
3. Make sure the PE module number and your name are written on the file name (e.g., "*PE01\_YourName.docx").*

*In this exercise, I was troubleshooting various issues with file paths and commands while setting up a Kubernetes environment. Key tasks included installing dependencies, configuring Docker images, and applying Kubernetes configurations. Errors encountered involved missing files and incorrect commands, with some progress made in running Minikube and applying Kubernetes configurations.*