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**Matriculation Number:** A0218348Y

**Github Link:** https://github.com/simjunheng/OTOT-A1

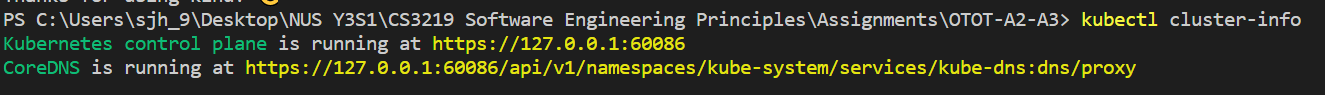
**INSTRUCTIONS FOR TASK A2.1**

Step 1: Run the command **kind create cluster --name kind-1 --config k8s/kind/cluster-config.yaml**

Text

Description automatically generated

Step 2: Check if the cluster is running using the command **kubectl cluster-info**



**INSTRUCTIONS FOR TASK A2.2**

Step 1: Move to a2 directory by running the command **cd demo/a2**

Step 2: Push your image from A1 into docker hub by running the command **docker login** and **docker push simjunheng1/myfirstapp**

Text

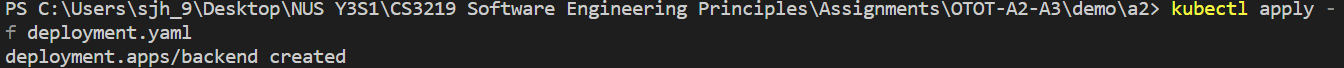
Description automatically generated

Step 3: Create a deployment.yaml file with contents as shown below.

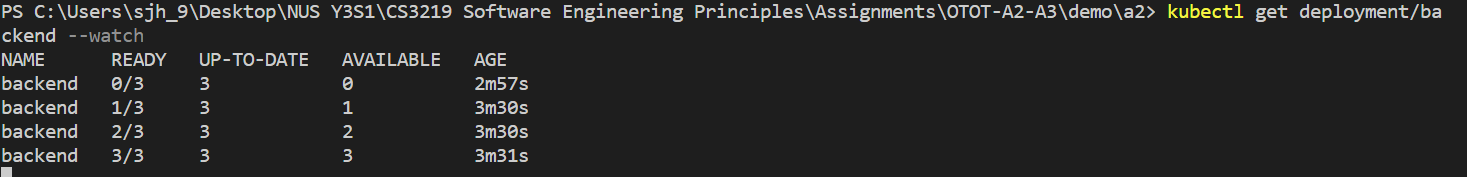
Text

Description automatically generated

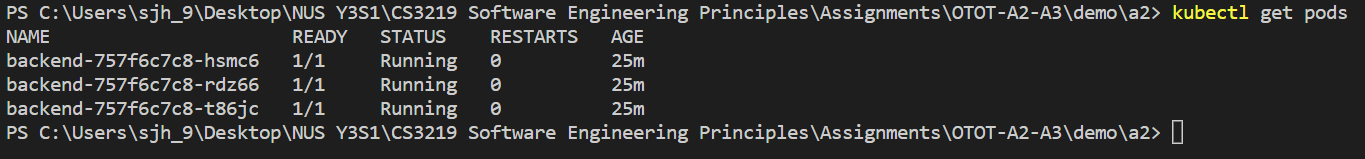
Step 4: Run the command **kubectl apply -f deployment.yaml**



Step 5: Run the command **kubectl get deployment/backend** to check if the deployments are running fine.



Step 6: Run the command **kubectl get pods** to check if the pods are running

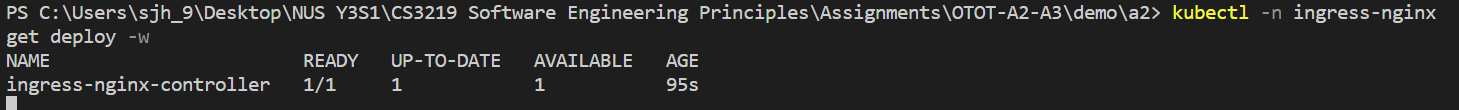


Step 7: Run the command **kubectl apply -f** [**https://raw.githubusercontent.com/kubernetes/ingress-nginx/main/deploy/static/provider/kind/deploy.yaml**](https://raw.githubusercontent.com/kubernetes/ingress-nginx/main/deploy/static/provider/kind/deploy.yaml)

Text

Description automatically generated

Step 8:Run the command **kubectl -n ingress-nginx get deploy -w** to checkif the deployment of the ingress controller is ready.

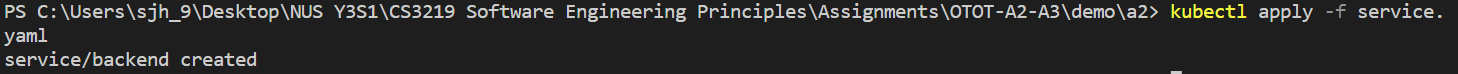


Step 9: Create a service.yaml file with contents as shown below.

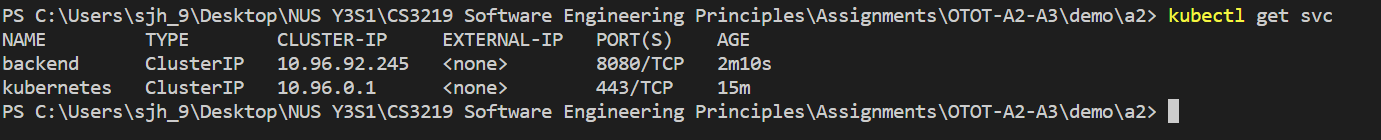
A picture containing graphical user interface

Description automatically generated

Step 10: Run the command **kubectl apply -f service.yaml**



Step 11: Run the command **kubectl get svc** to check if the service is created



**INSTRUCTIONS FOR TASK A2.3**

Step 1: Create an ingress.yaml file with contents as shown below.

Text

Description automatically generated

Step 2: Run the command **kubectl apply -f ingress.yaml**



Step 3: Run the command **kubectl get ingress** check if the ingress is set up sucessfully.

**Result**

Graphical user interface, application

Description automatically generated

**INSTRUCTIONS FOR TASK A3.1**