Lab Assignment 2 CMT

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TASK 2

I will install the official nginx-ingress controller for this setup, clone it as follows:
$ git clone https://github.com/nginxinc/kubernetes-ingress/

Navigate to kubernetes-ingress/deployments folder.
$ cd kubernetes-ingress/deployments

First off we will configure roll based access control(RBAC). Step one will be to create a namespace and a service account for the ingress controller, following command assumes usage of microk8s:
$ sudo microk8s.kubectl apply -f common/ns-and-sa.yaml

Step two is the creation of a cluster role and cluster role binding for the service account:
$ sudo microk8s.kubectl apply -f rbac/rbac.yaml

Next create a secret with a TLS certificate and a key for the default server in NGINX:
$ sudo microk8s.kubectl apply -f common/default-server-secret.yaml

If you want to create a config map for customizing NGINX configuration:
$ sudo microk8s.kubectl apply -f common/nginx-config.yaml

If you wish to customize resource definitions for VirtualServer and VirtualServerRoute resources:
$ sudo microk8s.kubectl apply -f common/custom-resource-definitions.yaml

Then deploy the container as Deployment, this will create one ingress controller pod:
$ sudo microk8s.kubectl apply -f deployment/nginx-ingress.yaml

To check if its runnning, run following:
$ kubectl get pods --namespace=nginx-ingress

This should yield something like this if runnning:

NAME	READY	STATUS	RESTARTS	AGE
nginx-ingress-f599ddd8-hrh77	1/1	Running	1	69m

To access the ingress controller pods, create a service with the type NodePort:
$ sudo microk8s.kubectl create -f service/nodeport.yaml