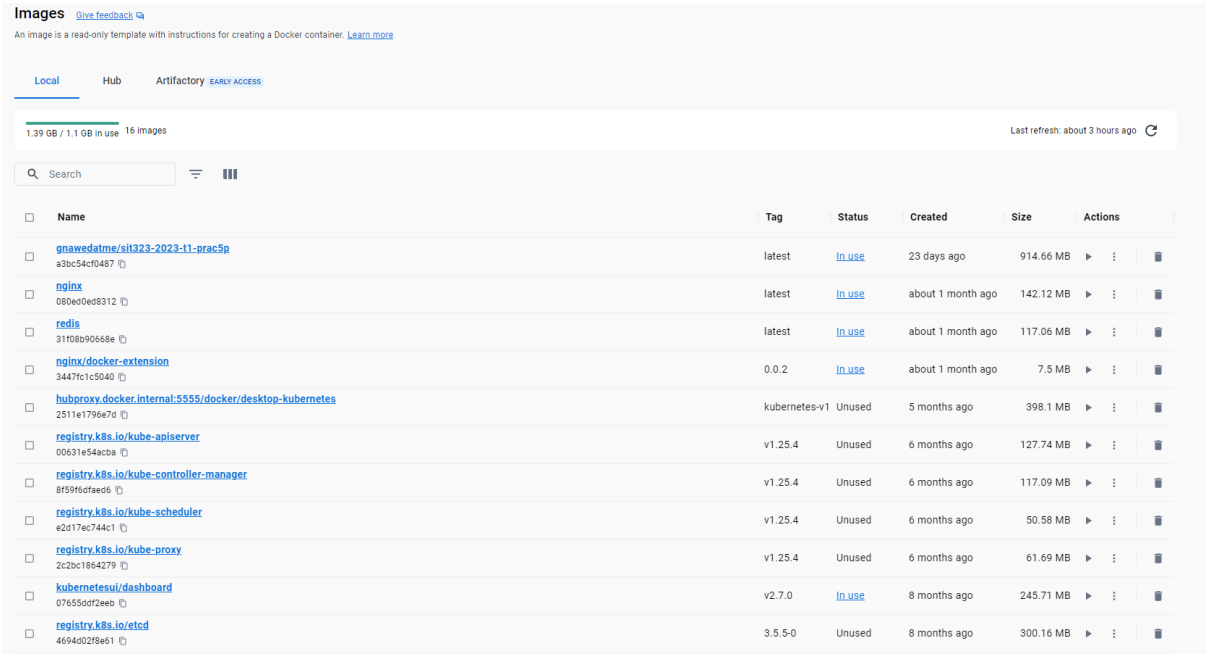
SIT323/SIT737 – Cloud Native Application Development

7.1P: Creating a Kubernetes Cluster for a containerised Application

By David Wang

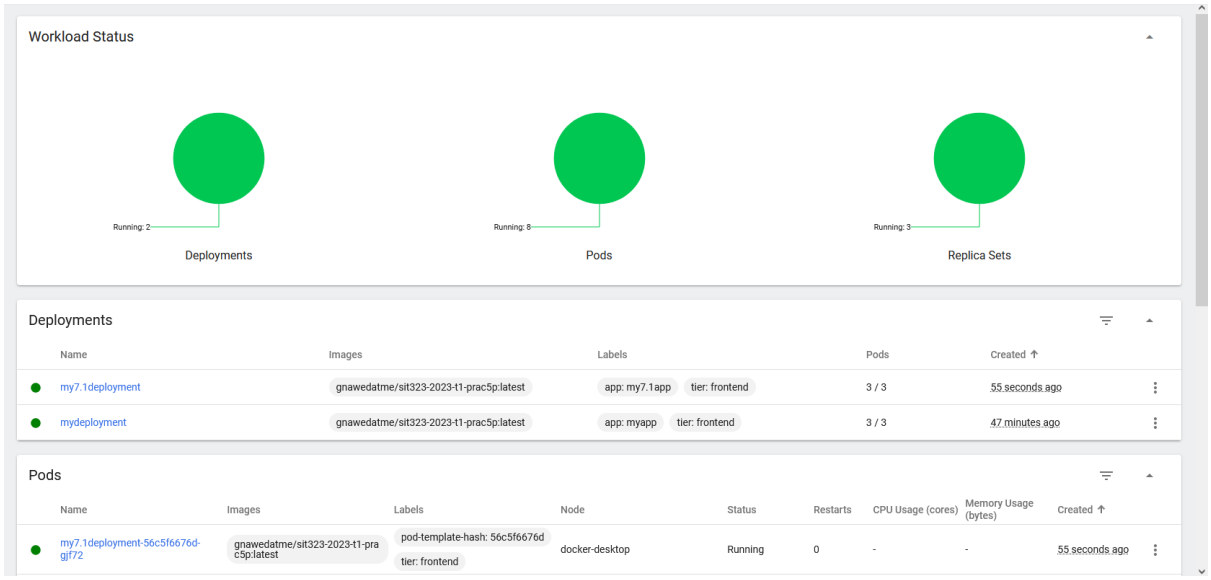
https://github.com/gnawd/sit323-737-2023-t1-prac7p.git



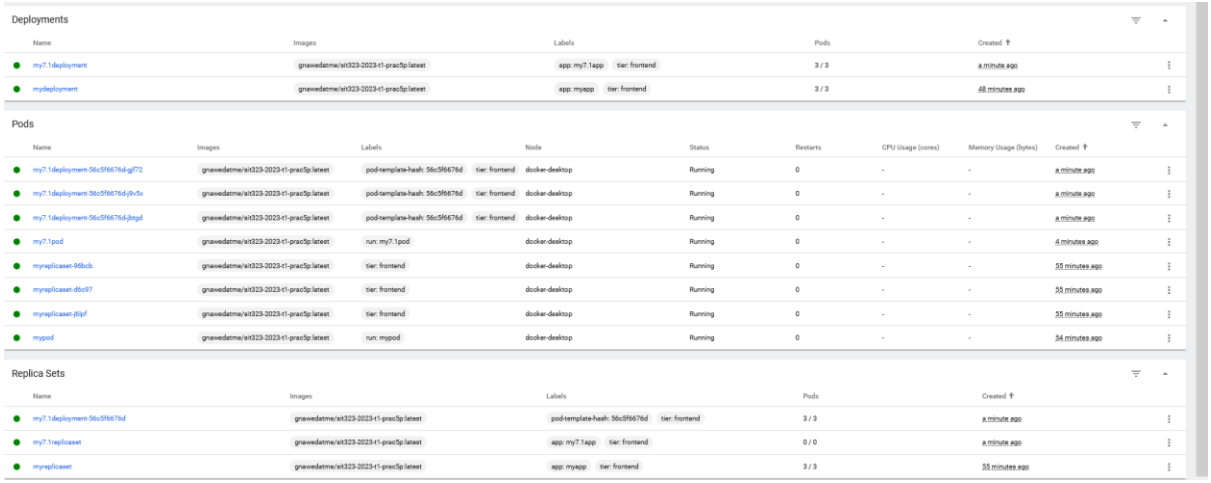
Docker-Desktop

```
PS C:\Users\Valorant only PC\Documents\7.1> kubectl apply -f createReplicaSet.yaml
The ReplicaSet "replicaset" is invalid: spec.template.spec.containers[0].name: Invalid value: "my7.1node": a lowercase RFC 1123 label must consist of lower case alphanumeric characters or '-', and must st
art and end with an alphanumeric character (e.g. 'my-name',  or '123-abc', regex used for validation is '[a-z0-9]([-a-z0-9]*[a-z0-9])?')
PS C:\Users\Valorant only PC\Documents\7.1> kubectl apply -f .\createDeployment.yaml
The Deployment "my7.1deployment" is invalid: spec.template.spec.containers[0].name: Invalid value: "my7.1node": a lowercase RFC 1123 label must consist of lower case alphanumeric characters or '-', and mu
st start and end with an alphanumeric character (e.g. 'my-name',  or '123-abc', regex used for validation is '[a-z0-9]([-a-z0-9]*[a-z0-9])?')
PS C:\Users\Valorant only PC\Documents\7.1> kubectl apply -f createReplicaSet.yaml
replicaset.apps/my7.1replicaset created
PS C:\Users\Valorant only PC\Documents\7.1> kubectl apply -f .\createDeployment.yaml
deployment.apps/my7.1deployment created
PS C:\Users\Valorant only PC\Documents\7.1> kubectl apply -f createPod.yaml
pod/my7.1pod unchanged
PS C:\Users\Valorant only PC\Documents\7.1>
```

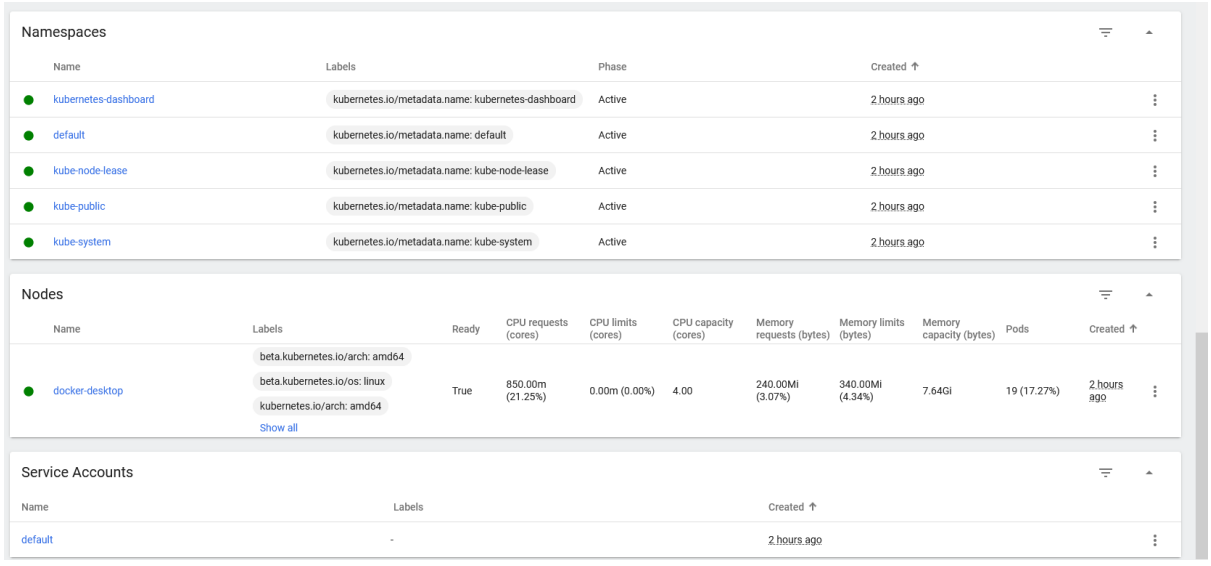
Terminal



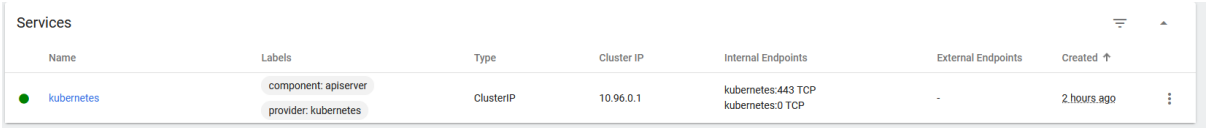
Dashboard



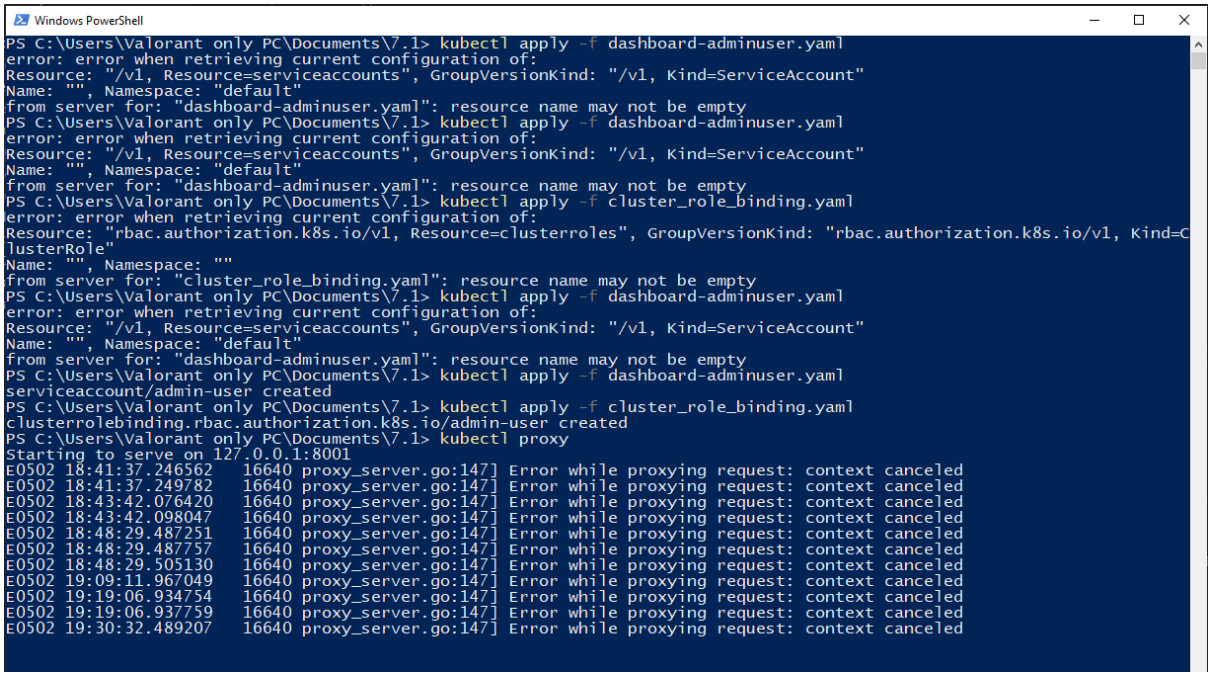
Development + Pods + Replica Sets



Namespaces + Nodes



Services



PowerShell interface