Cloud Data Centres – Lab 2

Hello MiniKube:

I loaded the dashboard through terminal and now have it running locally:

A screenshot of a computer

Description automatically generated

1. ***I then created a deployment using this command:*** kubectl create deployment hello-node --image=registry.k8s.io/e2e-test-images/agnhost:2.39 -- /agnhost netexec --http-port=8080

A screenshot of a computer

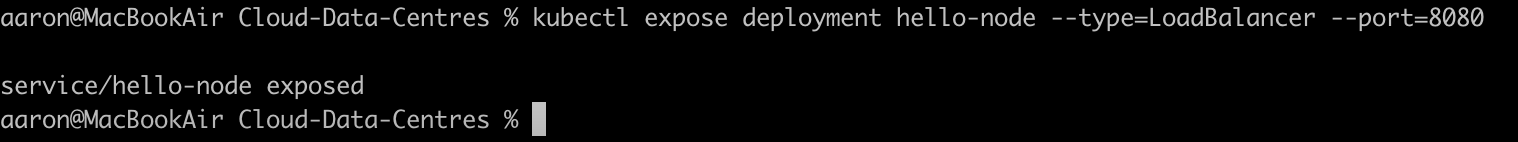
Description automatically generated

Here you can see the deployment and the pod through my terminal

A screenshot of a computer

Description automatically generated

Then I exposed it to the internet



Here are the services for my clusterA screen shot of a computer

Description automatically generated

I then ran the following command to get it working in the browser:

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Deploy An App:

I created the bootcamp deployment through terminal

A screen shot of a computer

Description automatically generated

I then hosted the proxy

A black and white screen with white text

Description automatically generated

A black screen with a black background

Description automatically generated

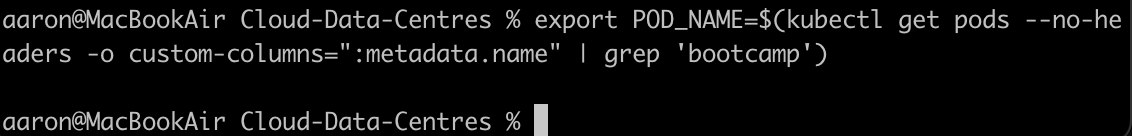
Then I got the pod name and stored it:

A screen shot of a computer

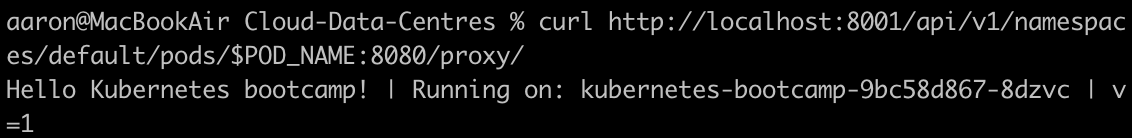
Description automatically generated

Explore Your App:

I got the pod name here:



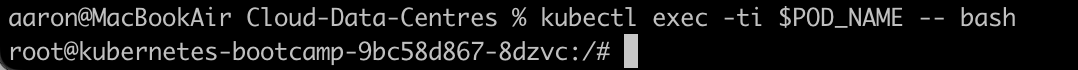
Here is the output of our application:



These are the environment variables

A screenshot of a computer

Description automatically generated

Now I am starting a bash session:

Now we can run a node js application

A computer screen with white text

Description automatically generated

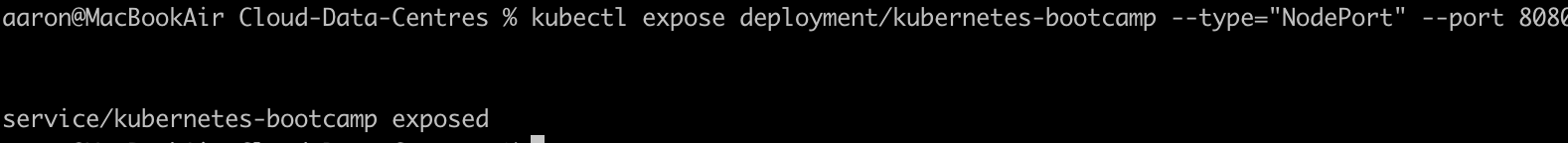
Expose your app publicly:

Here I am just listing the current pods

A black background with white text

Description automatically generated

Here I’m exposing the bootcamp to external traffic



We now have a Kubernetes bootcamp service

A screen shot of a computer

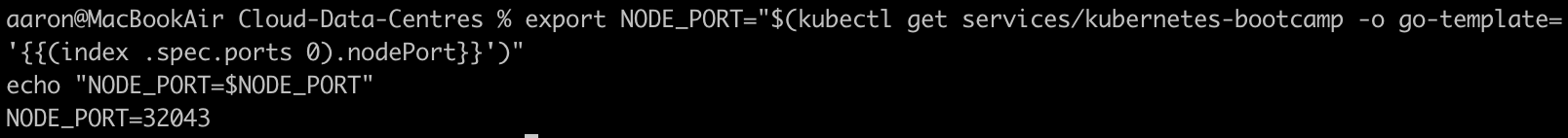
Description automatically generated

This is the Kubernetes bootcamp description

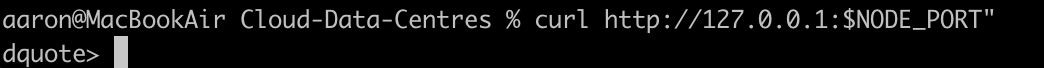
A computer screen shot of a computer

Description automatically generated

Now I’m creating a variable for the node port



Then I deployed it



This is the deployment description

A screenshot of a computer

Description automatically generated

Here I am getting the pod name and labelling it

A screen shot of a computer code

Description automatically generated

Now I can query the pod using the new label

A black screen with white text

Description automatically generated

Now I can use the label to delete as well

A black screen with white text

Description automatically generated

Scale Your App:

We have the bootcamp deployment and replica here

A screenshot of a computer screen

Description automatically generated

We now have 4 replicas of the bootcamp

A screen shot of a computer

Description automatically generated

Each node now has a different IP address

A screenshot of a computer program

Description automatically generated

Here I am getting the node port

A screen shot of a computer

Description automatically generated

Now I have it running

A screenshot of a computer

Description automatically generated

Now we can scale deployments back down

A black background with white text

Description automatically generated

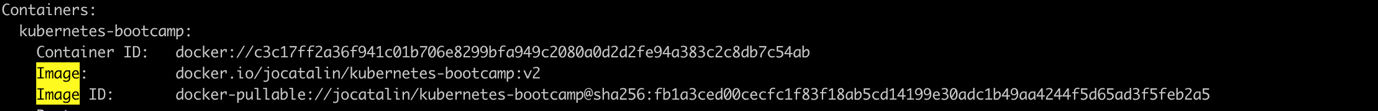
Update Your App:

Here I am updating the image for the bootcamp

A black screen with white text

Description automatically generated

As can be seen it is running the new image



Here I’m setting a new image

A screenshot of a computer

Description automatically generated

One of the images didn’t update as expected so we rolled it back

A black background with white text

Description automatically generated

Then finally cleaning up and deleting the bootcamp

A black screen with white text

Description automatically generated