Lab Assignment 1 CMT

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TASK 3

- Make sure the machine your launching ansible on has ssh keys copied to the hosts running our containers. Create a project folder and navigate to it, create a textfile named "hosts" with following content:

```
[webserver]
remote_host_ip
[webserver:vars]
ansible_python_interpreter=/usr/bin/python3
```

- Next create a new textfile in the project folder named main.yml with following content:

```
- hosts: webserver
  remote_user: yourUserName
  become: yes
  become_method: sudo
  tasks:
    - name: install microk8s via snap
  command: snap install microk8s --classic
```

TASK 4

Make sure the registry addon is enabled. Using microk8s, issue follwing command:
$ microk8s.enable registry

We should have the images from task two ready, we can check with command:
$ docker image ls

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
maxwebapp	latest	18825a1d1fd9	45 seconds ago	118MB
maxdb	latest	de6b7bffac81	About a minute ago	356MB

To deploy these containers, I run following two commands:
$ microk8s.kubectl create deployment maxwebapp --image=maxshahrokni/maxwebapp:latest

$ microk8s.kubectl create deployment maxdb --image=maxshahrokni/maxdb:latest

Then create a service for each of these pods to expose them for outside access. We first target the webapp, which runs on port 8080. Issue following command to expose said port:
$ microk8s.kubectl expose deployment maxwebapp --type=NodePort --port=8080 --name=maxwebapp-service

The database container needs port 3306 exposed:
$ microk8s.kubectl expose deployment maxdb --type=NodePort --port=3306 --name=maxdb-service