1- How many `pods` exist on the system?

2- How many `Nodes` exist on the system?

3- Create a new pod with the `nginx` image.
Image name: nginx

Editor Tab 1 +

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: nginx
  labels:
    app: nginx
spec:
  containers:
  - name: nginx
    image: nginx
    imagePullPolicy: Always
~
```

4- Which nodes are these pods placed on?

5- Create pod from the below yaml using kubectl apply command

```
apiVersion: v1
kind: Pod
metadata:
  name: webapp
  namespace: default
spec:
  containers:
  - image: nginx
    imagePullPolicy: Always
    name: nginx
  - image: agentx
    imagePullPolicy: Always
    name: agentx
```

```
controlplane:~$ kubectl get pod
No resources found in default namespace.
controlplane:~$ kubectl get nodes
NAME           STATUS   ROLES           AGE   VERSION
controlplane   Ready    control-plane   28d   v1.32.1
node01         Ready    <none>          28d   v1.32.1
controlplane:~$ vi nginx-pod.yaml
controlplane:~$ kubectl apply -f nginx-pod.yaml
pod/nginx created
controlplane:~$ kubectl get pod
poddisruptionbudgets.policy  pods                          podtemplates
controlplane:~$ kubectl get pods -o wide
NAME    READY   STATUS    RESTARTS   AGE   IP            NODE     NOMINATED NODE   READINESS GATES
nginx   1/1     Running   0          28s   192.168.1.4   node01   <none>           <none>
controlplane:~$ vi webapp.yaml
controlplane:~$ kubectl apply -f webapp.yaml
pod/webapp created
controlplane:~$ kubectl describe pod webapp
Name:             webapp
Namespace:        default
Priority:         0
Service Account:  default
Node:             node01/172.30.2.2
Start Time:       Sat, 19 Apr 2025 21:34:03 +0000
Labels:           <none>
Annotations:      cni.projectcalico.org/containerID: 886eefe2227b190d14d4abd7047de885eb3ae5a577e1e582b717febab4274eb6
```

6- How many containers are part of the pod `webapp`
--- 2 containers

7- What images are used in the new `webapp` pod?

--- nginx&agentx

8- What is the state of the container `agentx` in the pod `webapp`

`docker hup or private registry` مفيش ايمدج اسمها كدا علي

9- Why do you think the container `agentx` in pod `webapp` is in error?

10- Delete the `webapp` Pod.

```
controlplane:~$ kubectl delete pod webapp
pod "webapp" deleted
```

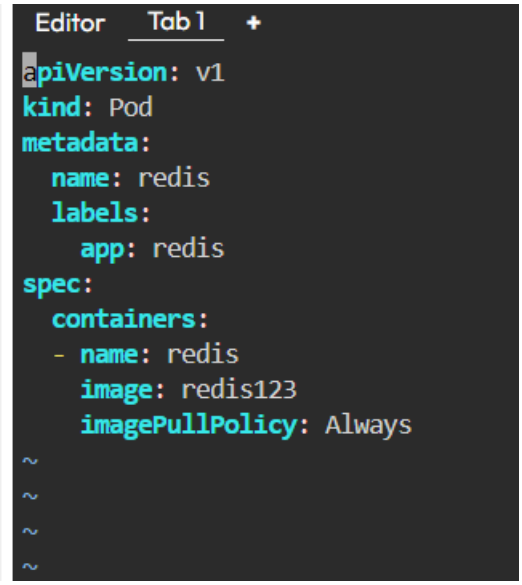
11- Create a new pod with the name `redis` and with the image `redis123`.

- Name: redis
- Image Name: redis123

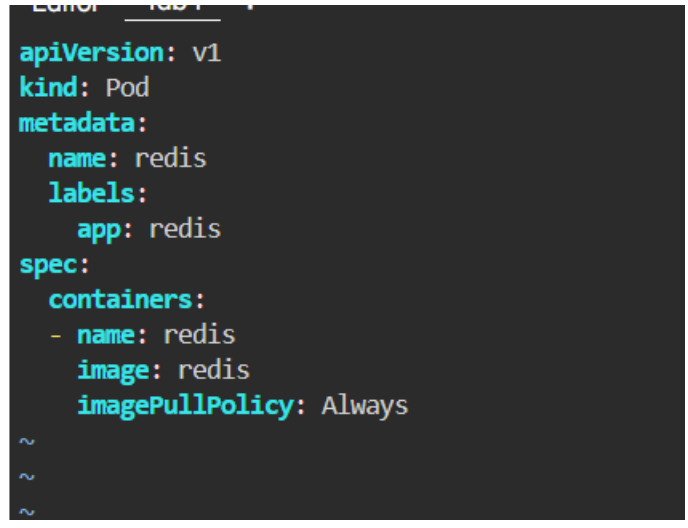
12- Now change the image on this pod to `redis`.
Once done, the pod should be in a `running` state.

```
controlplane:~$ vi redias-pod.yaml
controlplane:~$ kubectl apply -f redias-pod.yaml
Warning: resource pods/redis is missing the kubectl.kubernetes.io/last-applied-configuration annotation which is required by kubectl apply. kube
ctl apply should only be used on resources created declaratively by either kubectl create --save-config or kubectl apply. The missing annotation
 will be patched automatically.
pod/redis configured
controlplane:~$ vi redias-pod.yaml
controlplane:~$ kubectl apply -f redias-pod.yaml
pod/redis configured
controlplane:~$
```

Pod 1



Pod 2 configured



13- Create a pod called `my-pod` of image `nginx:alpine`

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: my-pod
  labels:
    app: nginx
spec:
  containers:
  - name: nginx
    image: nginx:alpine
    imagePullPolicy: Always
~
~
```

14- Delete the pod called `my-pod`

```
controlplane:~$ kubectl apply -f my-pod.yaml
pod/my-pod created
controlplane:~$ kubectl delete pod my-pod
pod "my-pod" deleted
```
