[ec2-user@ip-172-31-84-37 deployments]$ kubectl get services -o wide

NAME CLUSTER-IP EXTERNAL-IP PORT(S) AGE SELECTOR

kubernetes 100.64.0.1 <none> 443/TCP 99d <none>

vault 100.71.78.117 <none> 8200/TCP 15h app=vault

[ec2-user@ip-172-31-84-37 deployments]$ kubectl get deployments

NAME DESIRED CURRENT UP-TO-DATE AVAILABLE AGE

nginx-deployment 3 3 3 3 99d

postgres 1 1 1 1 12h

```
[ec2-user@ip-172-31-84-37 deployments]$ kubectl get services -o wide
NAME         CLUSTER-IP      EXTERNAL-IP   PORT(S)    AGE       SELECTOR
kubernetes   100.64.0.1      <none>        443/TCP    99d       <none>
vault        100.71.78.117   <none>        8200/TCP   15h       app=vault
[ec2-user@ip-172-31-84-37 deployments]$ kubectl get deployments
NAME               DESIRED   CURRENT   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   3         3         3            3           99d
postgres           1         1         1            1           12h
```

[ec2-user@ip-172-31-84-37 ~]$ kubectl expose deployment nginx-deployment

service "nginx-deployment" exposed

[ec2-user@ip-172-31-84-37 ~]$ kubectl get services

NAME CLUSTER-IP EXTERNAL-IP PORT(S) AGE

kubernetes 100.64.0.1 <none> 443/TCP 99d

nginx-deployment 100.70.87.219 <none> 80/TCP 9s

vault 100.71.78.117 <none> 8200/TCP 15h

[ec2-user@ip-172-31-84-37 ~]$ kubectl get services -o wide

NAME CLUSTER-IP EXTERNAL-IP PORT(S) AGE SELECTOR

kubernetes 100.64.0.1 <none> 443/TCP 99d <none>

nginx-deployment 100.70.87.219 <none> 80/TCP 19s app=nginx

vault 100.71.78.117 <none> 8200/TCP 15h app=vault

[ec2-user@ip-172-31-84-37 ~]$ kubectl expose deployment postgres

service "postgres" exposed

[ec2-user@ip-172-31-84-37 ~]$ kubectl get services -o wide

NAME CLUSTER-IP EXTERNAL-IP PORT(S) AGE SELECTOR

kubernetes 100.64.0.1 <none> 443/TCP 99d <none>

nginx-deployment 100.70.87.219 <none> 80/TCP 43s app=nginx

postgres 100.70.8.51 <none> 5432/TCP 4s app=postgres

vault 100.71.78.117 <none> 8200/TCP 15h app=vault

```
[ec2-user@ip-172-31-84-37 ~]$ kubectl expose deployment nginx-deployment
service "nginx-deployment" exposed
[ec2-user@ip-172-31-84-37 ~]$ kubectl get services
NAME               CLUSTER-IP      EXTERNAL-IP   PORT(S)    AGE
kubernetes         100.64.0.1      <none>        443/TCP    99d
nginx-deployment   100.70.87.219   <none>        80/TCP     9s
vault              100.71.78.117   <none>        8200/TCP   15h
[ec2-user@ip-172-31-84-37 ~]$ kubectl get services -o wide
NAME               CLUSTER-IP      EXTERNAL-IP   PORT(S)    AGE       SELECTOR
kubernetes         100.64.0.1      <none>        443/TCP    99d       <none>
nginx-deployment   100.70.87.219   <none>        80/TCP     19s       app=nginx
vault              100.71.78.117   <none>        8200/TCP   15h       app=vault
[ec2-user@ip-172-31-84-37 ~]$ kubectl expose deployment postgres
service "postgres" exposed
[ec2-user@ip-172-31-84-37 ~]$ kubectl get services -o wide
NAME               CLUSTER-IP      EXTERNAL-IP   PORT(S)    AGE       SELECTOR
kubernetes         100.64.0.1      <none>        443/TCP    99d       <none>
nginx-deployment   100.70.87.219   <none>        80/TCP     43s       app=nginx
postgres           100.70.8.51     <none>        5432/TCP   4s        app=postgres
vault              100.71.78.117   <none>        8200/TCP   15h       app=vault
```

To interact with services, we are going to port-forward to one of the nginx pods. Start and leave this command running in a terminal window. You can see
the port forward working by accessing the alpaca pod at *http://localhost:48858*

[ec2-user@ip-172-31-84-37 ~]$ webserver_pod=$(kubectl get pods -l app=nginx -o jsonpath='{.items[0].metadata.name}')

[ec2-user@ip-172-31-84-37 ~]$ echo $webserver_pod

nginx-deployment-75675f5897-6lq5x

[ec2-user@ip-172-31-84-37 ~]$ kubectl get pods

NAME READY STATUS RESTARTS AGE

nginx-deployment-75675f5897-6lq5x 1/1 Running 0 16h

nginx-deployment-75675f5897-98hxg 1/1 Running 0 16h

nginx-deployment-75675f5897-jfd9n 1/1 Running 0 16h

postgres-7ff9df5765-nqzbk 1/1 Running 0 12h

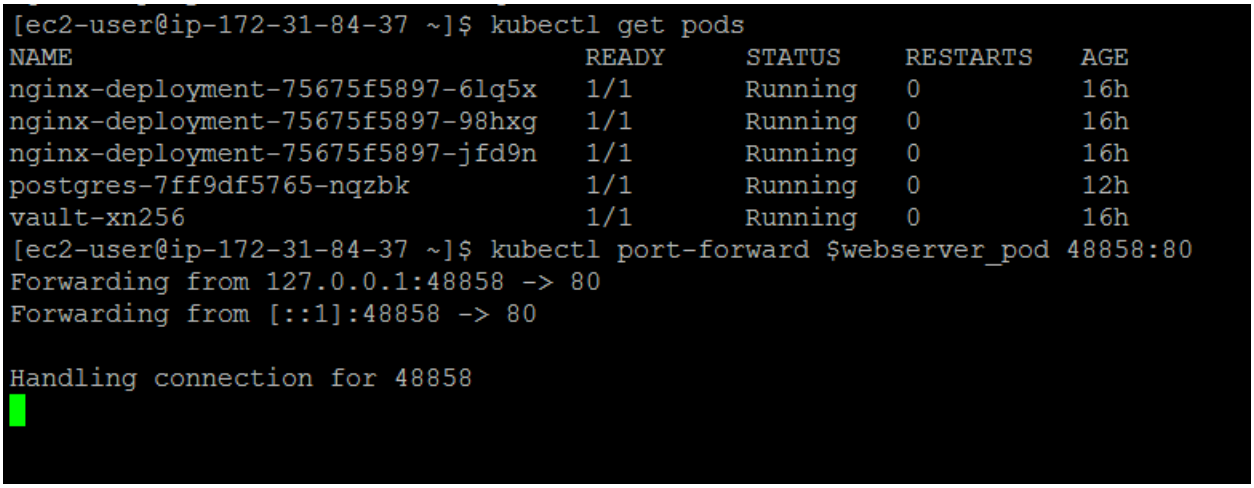
vault-xn256 1/1 Running 0 16h

[ec2-user@ip-172-31-84-37 ~]$ kubectl port-forward $webserver_pod 48858:80

Forwarding from 127.0.0.1:48858 -> 80

Forwarding from [::1]:48858 -> 80

Handling connection for 48858



Check accessibility of service on http://localhost:48858

```
[ec2-user@ip-172-31-84-37 ~]$ curl http://localhost:48858
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
    body {
        width: 35em;
        margin: 0 auto;
        font-family: Tahoma, Verdana, Arial, sans-serif;
    }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
```