Using Kubernetes Ingress

Your company, BeeBox, is in the process of developing some applications for Kubernetes.

One of these applications, a web authentication service, will need to be accessible by external clients using the BeeBox mobile app. A Deployment has been created to represent this Service (the app is still in early stages, so it is just running Nginx containers for now).

Create a ClusterIP service that will expose the web-auth Deployment. Then, create an Ingress which maps requests with the path /auth to the Service.

For now, you do not need to worry about installing any Ingress controllers.

After reading above we need to create a service that's going to expose the pods from the web-auth deployment. And then create an ingress that then maps to that service and routes traffic to it.

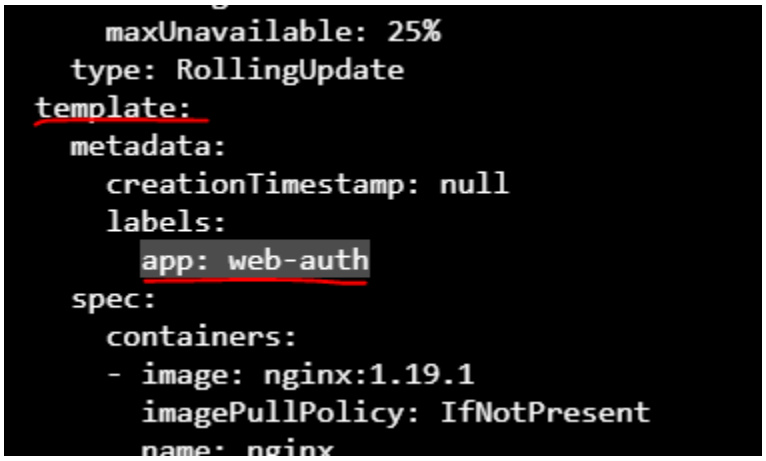
Create a Service to Expose the web-auth Deployment

We need to check out the deployment that we are going to be exposing

1. Look into the deployment

kubectl get deployment web-auth -o yaml

Figure 1-1



We will use that "app: web-auth as a label to select these pods using our service

2. So now lets create the service

vi web-auth.svc.yml

Figure 1-2

```yaml
apiVersion: v1
kind: Service
metadata:
  name: web-auth-svc
spec:
  type: ClusterIP
  selector:
    app: web-auth
  ports:
    - name: http
      protocol: TCP
      port: 80
      targetPort: 80
~
```

Just creating a simple service called web-auth-svc. Going to be an internal ClusterIP service. And then for the selector remember from step 1/Figure 1-1 we saw the “app: web-auth” and included that into the yml file as well. And exposing port 80

3. Create the service using the create -f

Now that the service is ready, we can now create our ingress

Create an Ingress That Maps to the New Service

4. Create the yml file for ingress

vi web-auth-ingress.yml

Figure 1-3

```yaml
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: web-auth-ingress
spec:
  rules:
  - http:
      paths:
      - path: /auth
        pathType: Prefix
        backend:
          service:
            name: web-auth-svc
            port:
              number: 80
~
```

Creating an ingress called a web-auth-ingress and we have a single ingress rule. Which is an http rule which has a single path under that rule.

So on the very top on page one. Our instructions say we're going to map requests with the path /auth and that is what we did. Exposed on port 80 on that service

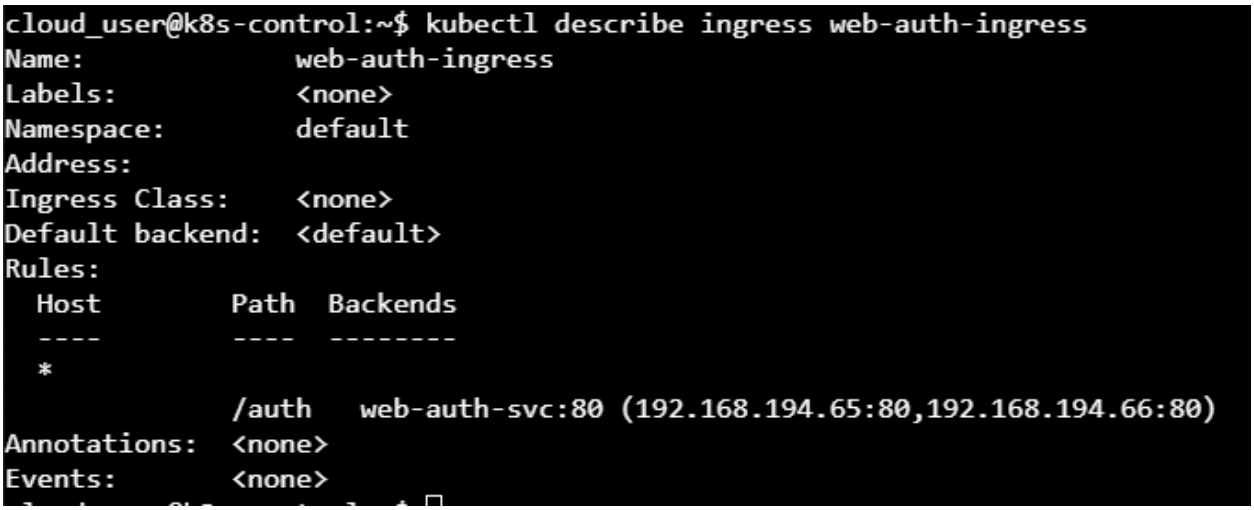
5. Create the ingress file

So now that we have the ingress created. So now lets check to see if the endpoints are listed

6. Check to see if endpoints are listed

kubectl describe ingress web-auth-ingress

Figure 1-4



We have the service endpoints listed on the IP addresses you see beside the web-auth-svc.