**Deploying an app on Google Kubernetes Engine**

**(USING GOOGLE CLOUD SHELL)**

**1 - Create an Autopilot cluster named hello-cluster:​**

**gcloud container clusters create-auto hello-cluster --region=COMPUTE\_REGION​**

(--region=northamerical-northeast1)

Replace COMPUTE\_REGION with your Compute Engine region, such as us-west1.​

gcloud container clusters get-credentials hello-cluster --region COMPUTE\_REGION​

**2 - Create the Deployment​**

To run hello-app in your cluster, you need to deploy the application by running the following command:​

**kubectl create deployment hello-server --image=us-docker.pkg.dev/google-samples/containers/gke/hello-app:1.0​**

**3 - Expose the Deployment​**

After deploying the application, you need to expose it to the internet so that users can access it. You can expose your application by creating a Service, a Kubernetes resource that exposes your application to external traffic.​

To expose your application, run the following kubectl expose command:​

**kubectl expose deployment hello-server --type LoadBalancer --port 80 --target-port 8080​**

**4 - Inspect and view the application​**

Inspect the running Pods by using kubectl get pods:​

**kubectl get pods​**

You should see one hello-server Pod running on your cluster.​

kubectl get service hello-server​

From this command's output, **copy the Service's external IP address from the EXTERNAL-IP column paste it in your web-browser(Example of the EXTERNAL IP 34.95.31.237). Check the pictures below.**

**Note:** You might need to wait several minutes before the Service's external IP address populates. If the application's external IP is <pending>, run kubectl get again.​

**View the application from your web browser by using the external IP address with the exposed port:​**

**5 - Clean up​**

To avoid incurring charges to your Google Cloud account for the resources used on this page, follow these steps.​

**i** - Delete the application's Service by running kubectl delete:​

**kubectl delete service hello-server​**

**(it very important you input this kubectl to delete all you've created)**

This command deletes the Compute Engine load balancer that you created when you exposed the Deployment.​

**ii** - Delete your cluster by running gcloud container clusters delete:​

**gcloud container clusters delete hello-cluster --region COMPUTE\_REGION​**

**(--region=northamerica-northeast1)**



