

## CLOUD COMPUTING LABORATORY

### **Experiment – 10:**

*Deploy a containerized application to a Kubernetes Engine cluster.*

**Step 1:** From the Google Cloud homepage, click on **Console** to open the Google Cloud Console.

**Step 2:** Go to Navigation Menu ☰ → **Kubernetes Engine** → **Clusters**.

**Step 3:** Click **Enable API**, if it asks to enable Kubernetes Engine API.

**Step 4:** Click **Create** → **Autopilot cluster**.

**Step 5:** Enter cluster name as **hello-cluster**, select region, and click **Create**.

**Step 6:** After cluster becomes **Running**, open **Cloud Shell**.

**Step 7: Connect to cluster using:**

```
gcloud container clusters get-credentials hello-cluster
--region us-central1
```

**Step 8: Deploy sample app using:**

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

**Step 9: Expose app using:**

```
kubectl expose deployment hello-app -- type=LoadBalancer  
--port 80 --target-port 8080
```

**Step 10:** Run `kubectl get service hello-app`, copy the **External IP**, and open it in browser.

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