

# Hands-on with Kubernetes on Cloud

## Steps

- Download and upload the tcb-vote.zip file to Cloud Shell:  
<https://www.dropbox.com/s/oxsnuzydxubwyhb/tcb-vote-en.zip?dl=0>
- Unzip tcb-vote.zip  
mkdir kube  
mv tcb-vote\*.zip kube  
cd kube  
unzip tcb-vote\*.zip
- Set project

```
gcloud config set project <PROJECT_ID>
```

- Build and push the image to Container Registry

```
gcloud services enable cloudbuild.googleapis.com --project <PROJECT_ID> gcloud builds submit --tag gcr.io/<PROJECT_ID>/tcb-vote-front
```

- Create and Connect to GKE
- Deploy the app to GKE

```
kubectl apply -f tcb-vote-plus-redis-v2.yaml
```

- Enable autoscaling - horizontal pod autoscaling

```
kubectl autoscale deployment tcb-vote-front --cpu-percent=50 --min=1 --max=10  
kubectl get hpa kubectl get pods kubectl get deployment tcb-vote-front
```

- Simulate user access (increase the load)

```
kubectl run -i --tty load-generator --rm --image=busybox:1.28 --restart=Never  
-- /bin/sh -c "while sleep 0.01; do wget -q -O- <http://tcb-vote-front>; done"
```

- Watch autoscale

```
kubectl get hpa tcb-vote-front --watch kubectl get deployment tcb-vote-front
```

- Stop load  
CTRL +C on cloud shell tab running the load increase
- Watch scale down

```
kubectl get hpa tcb-vote-front --watch kubectl get deployment tcb-vote-front
```