

# MiniKube Lab 3

## Pt.1

Container CPU usage ⓘ

11.04% / 2000% (20 CPUs available)

Container memory usage ⓘ

736.6MB / 7.43GB

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<input type="checkbox"/>	Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
<input type="checkbox"/>	<span>minikube</span>	ed9cadfaeca3	k8s-minikube/kicbase:v0.0.46	57579:22 <a href="#">Show all ports (5)</a>	10.41%	6 minutes ago	<div><div></div><div></div><div></div></div>

localhost:7080

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Request served by hello-minikube-ffcb5874-hrgw6

HTTP/1.1 GET /

Host: localhost:7080

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,\*/\*;q=0.8,application/signed-exchange;v=b3;q=0.7

Accept-Encoding: gzip, deflate, br, zstd

Accept-Language: en-US,en;q=0.9

Connection: keep-alive

Sec-Ch-Ua: "Opera GX";v="116", "Chromium";v="131", "Not\_A Brand";v="24"

Sec-Ch-Ua-Mobile: ?0

Sec-Ch-Ua-Platform: "Windows"

Sec-Fetch-Dest: document

Sec-Fetch-Mode: navigate

Sec-Fetch-Site: cross-site

Sec-Fetch-User: ?1

Upgrade-Insecure-Requests: 1

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/131.0.0.0 Safari/537.36 OPR/116.0.0.0

Workload Status

Running: 1

Deployments

Running: 1

Pods

Running: 1

Replica Sets

Deployments

Name	Images	Labels	Pods	Created ↑
<span>hello-minikube</span>	kicbase/echo-server:1.0	app: hello-minikube	1 / 1	3 minutes ago

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created ↑
<span>hello-minikube-ffcb5874-hrgw6</span>	kicbase/echo-server:1.0	app: hello-minikube pod-template-hash: ffcbb5874	minikube	Running	0	-	-	3 minutes ago

## Pt2.

```
C:\Users\gameuser>curl http://localhost:8001/version
{
  "major": "1",
  "minor": "32",
  "gitVersion": "v1.32.0",
  "gitCommit": "70d3cc986aa8221cd1dfb1121852688902d3bf53",
  "gitTreeState": "clean",
  "buildDate": "2024-12-11T17:59:15Z",
  "goVersion": "go1.23.3",
  "compiler": "gc",
  "platform": "linux/amd64"
}
C:\Users\gameuser>
```

## Pt3

```
C:\Users\gameuser>kubectl exec -ti $POD_NAME -- bash
Error from server (NotFound): pods "$POD_NAME" not found

C:\Users\gameuser>kubectl exec -ti kubernetesc-bootstrap-9bc58d867-2fjcm -- bash
root@kubernetesc-bootstrap-9bc58d867-2fjcm:/# cat server.js
var http = require('http');
var requests=0;
var podname= process.env.HOSTNAME;
var startTime;
var host;
var handleRequest = function(request, response) {
  response.writeHead('Content-Type', 'text/plain');
  response.writeHead(200);
  response.write("Hello Kubernetes bootcamp! | Running on: ");
  response.write(host);
  response.end(" | v=1\n");
  console.log("Running On:" ,host, "| Total Requests:", ++requests,"| App Uptime:", (new Date() - startTime)/1000 , "seconds", "| Log Time:",new Date());
};
var www = http.createServer(handleRequest);
www.listen(8080,function () {
  startTime = new Date();
  host = process.env.HOSTNAME;
  console.log ("Kubernetes Bootcamp App Started At:",startTime, "| Running On: " ,host, "\n" );
});
root@kubernetesc-bootstrap-9bc58d867-2fjcm:/# curl http://localhost:8080
Hello Kubernetes bootcamp! | Running on: kubernetesc-bootstrap-9bc58d867-2fjcm | v=1
root@kubernetesc-bootstrap-9bc58d867-2fjcm:/# exit
exit
C:\Users\gameuser>
```

```
C:\Users\gameuser>curl http://localhost:8001/api/v1/namespaces/default/pods/kubernetesc-bootstrap-9bc58d867-2fjcm:8080/proxy/
Hello Kubernetes bootcamp! | Running on: kubernetesc-bootstrap-9bc58d867-2fjcm | v=1

C:\Users\gameuser>kubectl logs "kubernetesc-bootstrap-9bc58d867-2fjcm"
Kubernetes Bootcamp App Started At: 2025-03-12T13:15:31.690Z | Running On: kubernetesc-bootstrap-9bc58d867-2fjcm
Running On: kubernetesc-bootstrap-9bc58d867-2fjcm | Total Requests: 1 | App Uptime: 554.482 seconds | Log Time: 2025-03-12T13:24:46.172Z

C:\Users\gameuser>kubectl exec "kubernetesc-bootstrap-9bc58d867-2fjcm" -- env
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
HOSTNAME=kubernetesc-bootstrap-9bc58d867-2fjcm
KUBERNETES_PORT_443_TCP_ADDR=10.96.0.1
KUBERNETES_SERVICE_HOST=10.96.0.1
KUBERNETES_SERVICE_PORT=443
KUBERNETES_SERVICE_PORT_HTTPS=443
KUBERNETES_PORT=tcp://10.96.0.1:443
KUBERNETES_PORT_443_TCP=tcp://10.96.0.1:443
KUBERNETES_PORT_443_TCP_PROTO=tcp
KUBERNETES_PORT_443_TCP_PORT=443
NPM_CONFIG_LOGLEVEL=info
NODE_VERSION=6.3.1
HOME=/root
```

# Pt4.

```
C:\Users\gameuser>kubect1 get pods -l app=kubernetes-bootcamp
NAME                                READY   STATUS    RESTARTS   AGE
kubernetes-bootcamp-9bc58d867-2fjcm 1/1     Running   0           18m

C:\Users\gameuser>kubect1 label pods kubernetes-bootcamp-9bc58d867-2fjcm version=v1
pod/kubernetes-bootcamp-9bc58d867-2fjcm labeled

C:\Users\gameuser>kubect1 describe pods kubernetes-bootcamp-9bc58d867-2fjcm
Name:                                kubernetes-bootcamp-9bc58d867-2fjcm
Namespace:                          default
Priority:                             0
Service Account:                     default
Node:                                minikube/192.168.49.2
Start Time:                          Wed, 12 Mar 2025 13:15:24 +0000
Labels:                              app=kubernetes-bootcamp
                                      pod-template-hash=9bc58d867
                                      version=v1
Annotations:                         <none>
Status:                              Running
IP:                                  10.244.0.2
IPs:                                 IP: 10.244.0.2
Controlled By:                       ReplicaSet/kubernetes-bootcamp-9bc58d867
Containers:
  kubernetes-bootcamp:
    Container ID:   docker://7052214c4c2bc44a6b32f5c7a6bdbd85f2806ac94c6267e8729feada59004a48
    Image:          gcr.io/google-samples/kubernetes-bootcamp:v1
    Image ID:       docker-pullable://gcr.io/google-samples/kubernetes-bootcamp@sha256:0d6b8ee63bb57c5f5b6156f446b3bc3b3c143d233037f3a2f00e279c8fcc64af
    Port:           <none>
    Host Port:      <none>
    State:          Running
      Started:      Wed, 12 Mar 2025 13:15:31 +0000
    Ready:          True
    Restart Count:   0
    Environment:    <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-z5dcn (ro)
```

```
C:\Users\gameuser>kubect1 get pods -l version=v1
NAME                                READY   STATUS    RESTARTS   AGE
kubernetes-bootcamp-9bc58d867-2fjcm 1/1     Running   0           20m

C:\Users\gameuser>kubect1 delete service -l app=kubernetes-bootcamp
service "kubernetes-bootcamp" deleted

C:\Users\gameuser>kubect1 get services
NAME         TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
kubernetes  ClusterIP   10.96.0.1    <none>        443/TCP    20m
```

# Pt5



```
C:\Users\gameuser>curl http://127.0.0.1:58775
Hello Kubernetes bootcamp! | Running on: kubernetes-bootcamp-9bc58d867-xrbp7 | v=1

C:\Users\gameuser>curl http://127.0.0.1:58775
Hello Kubernetes bootcamp! | Running on: kubernetes-bootcamp-9bc58d867-2fjcm | v=1

C:\Users\gameuser>curl http://127.0.0.1:58775
Hello Kubernetes bootcamp! | Running on: kubernetes-bootcamp-9bc58d867-xrbp7 | v=1

C:\Users\gameuser>curl http://127.0.0.1:58775
Hello Kubernetes bootcamp! | Running on: kubernetes-bootcamp-9bc58d867-rlnz6 | v=1

C:\Users\gameuser>
```

Deployments					
Name	Images	Labels	Pods	Created ↑	
 kubernetes-bootcamp	gcr.io/google-samples/kubernetes-bootcamp:v1	app: kubernetes-bootcamp	4 / 4	37 minutes ago	

```
C:\Users\gameuser>kubectl scale deployments/kubernetes-bootcamp --replicas=2
deployment.apps/kubernetes-bootcamp scaled

C:\Users\gameuser>kubectl get deployments
NAME                READY   UP-TO-DATE   AVAILABLE   AGE
kubernetes-bootcamp 2/2     2            2           38m

C:\Users\gameuser>kubectl get pods -o wide
NAME                READY   STATUS    RESTARTS   AGE   IP            NODE       NOMINATED NODE   READINESS GATES
kubernetes-bootcamp-9bc58d867-2fjcm 1/1     Running   1 (6m53s ago)   38m   10.244.0.11   minikube   <none>           <none>
kubernetes-bootcamp-9bc58d867-khkw5 1/1     Terminating   1 (6m53s ago)   13m   10.244.0.9    minikube   <none>           <none>
kubernetes-bootcamp-9bc58d867-rlnz6 1/1     Running   1 (6m53s ago)   13m   10.244.0.7    minikube   <none>           <none>
kubernetes-bootcamp-9bc58d867-xrbp7 1/1     Terminating   1 (6m53s ago)   13m   10.244.0.10   minikube   <none>           <none>

C:\Users\gameuser>
```

# Pt6:


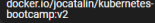
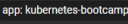
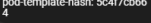


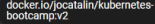
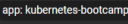
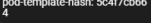
```
C:\Users\gameuser>describe services/kubernetes-bootcamp
'describe' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\gameuser>curl http://127.0.0.1:58775
Hello Kubernetes bootcamp! | Running on: kubernetes-bootcamp-5c4f7cb664-csp8g | v=2

C:\Users\gameuser>kubectl set image deployments/kubernetes-bootcamp kubernetes-bootcamp=gcr.io/google-samples/kubernetes-bootcamp:v10
deployment.apps/kubernetes-bootcamp image updated

C:\Users\gameuser>kubectl rollout undo deployments/kubernetes-bootcamp
deployment.apps/kubernetes-bootcamp rolled back

C:\Users\gameuser>kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
kubernetes-bootcamp-5c4f7cb664-bcswx 1/1     Running   0           86s
kubernetes-bootcamp-5c4f7cb664-csp8g 1/1     Running   0           83s
```

Pods									
Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created	
 <a href="#">kubernetes-bootcamp-5c4f7cb664-csp8g</a>		 	minikube	Running	0	-	-	2 minutes ago	
 <a href="#">kubernetes-bootcamp-5c4f7cb664-bcswx</a>		 	minikube	Running	0	-	-	2 minutes ago	