

Name – Anup Kore

Topic – Scaling up and Scaling down a K8N pod

Date – 02/05/2023

```
C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl create deployment project --image=anup1207/for_mini_project:mini_project_tag
deployment.apps/project created

C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
project-8676c7966-7qgdw  1/1     Running   0           15s

C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get rs
NAME                DESIRED   CURRENT   READY   AGE
project-8676c7966    1          1          1       50s

C:\Users\LENOVO>
C:\Users\LENOVO>kubectl expose pod project-8676c7966 --type=NodePort --port=8080
Error from server (NotFound): pods "project-8676c7966" not found

C:\Users\LENOVO>kubectl expose pod project --type=NodePort --port=8080
Error from server (NotFound): pods "project" not found

C:\Users\LENOVO>kubectl expose project --type=NodePort --port=8080
error: the server doesn't have a resource type "project"

C:\Users\LENOVO>kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
project-8676c7966-7qgdw  1/1     Running   0           3m48s

C:\Users\LENOVO>kubectl expose pod project-8676c7966 --type=NodePort --port=8080
Error from server (NotFound): pods "project-8676c7966" not found

C:\Users\LENOVO>kubectl expose deployment project --type=NodePort --port=8080
service/project exposed

C:\Users\LENOVO>
C:\Users\LENOVO>
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C:\Users\LENOVO>
C:\Users\LENOVO>kubectl describe services
Name:      kubernetetes
Namespace: default
Labels:    component=apiserver
           provider=kubernetetes
Annotations: <none>
Selector:  <none>
Type:      ClusterIP
IP Family Policy: SingleStack
IP Families: IPv4
IP:        10.96.0.1
IPs:       10.96.0.1
Port:      https 443/TCP
TargetPort: 8443/TCP
Endpoints: 192.168.49.2:8443
Session Affinity: None
Events:    <none>

Name:      project
Namespace: default
Labels:    app=project
Annotations: <none>
Selector:  app=project
Type:      NodePort
IP Family Policy: SingleStack
IP Families: IPv4
IP:        10.109.134.156
IPs:       10.109.134.156
Port:      https 8080/TCP
TargetPort: 8080/TCP
NodePort:  https 30240/TCP
Endpoints: 10.244.0.106:8080
Session Affinity: None
External Traffic Policy: Cluster
Events:    <none>

C:\Users\LENOVO>

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Command Prompt
C:\Users\LENOVO>kubectl get all -o wide
NAME                                READY    STATUS    RESTARTS   AGE    IP            NODE    NOMINATED NODE    READINESS GATES
pod/project-8676c7966-7qgdw         1/1      Running   0           11m    10.244.0.106  minikube  <none>             <none>

NAME                                TYPE     CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE    SELECTOR
service/kubernetes                  ClusterIP  10.96.0.1      <none>          443/TCP    3d6h   <none>
service/project                     NodePort   10.109.134.156 <none>          8080:30240/TCP  4m32s  app=project

NAME                                READY    UP-TO-DATE    AVAILABLE    AGE    CONTAINERS    IMAGES    SELECTOR
deployment.apps/project             1/1      1              1            11m    for-mini-project-m962n  anup1207/for_mini_project:mini_project_tag  app=project

NAME                                DESIRED    CURRENT    READY    AGE    CONTAINERS    IMAGES    SELECTOR
replicaset.apps/project-8676c7966  1          1          1        11m    for-mini-project-m962n  anup1207/for_mini_project:mini_project_tag  app=project,pod-template-hash=8676c7966

C:\Users\LENOVO>
C:\Users\LENOVO>
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```
Command Prompt
C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get rs
NAME                                DESIRED    CURRENT    READY    AGE
project-8676c7966                   1          1          1        13m

C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl scale --current-replicas=1 --replicas=5 deployment/project
deployment.apps/project scaled

C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get rs
NAME                                DESIRED    CURRENT    READY    AGE
project-8676c7966                   5          5          1        14m

C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get pods
NAME                                READY    STATUS    RESTARTS   AGE
project-8676c7966-7qgdw             1/1      Running   0           14m
project-8676c7966-d886x             1/1      Running   0           13s
project-8676c7966-p4b7f             1/1      Running   0           13s
project-8676c7966-prn1c             1/1      Running   0           13s
project-8676c7966-z8vks             1/1      Running   0           13s

C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>
```

kubernetes - Failed create pod s... x Kubernetes Dashboard x anup1207/for_mini_project gene... x +

127.0.0.1:54416/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/pod?namespace=default

kubernetes default Search +

Workloads > Pods

Workloads N

- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods**
- Replica Sets
- Replication Controllers
- Stateful Sets

Service

- Ingresses N
- Ingress Classes
- Services N

Config and Storage

Config Maps N

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created
project-8676c7966-d886x	anup1207/for_min i_projectmini_proj ect_tag	app: project pod-template-has h: 8676c7966	minikube	Running	0	351.00m	66.22Mi	a minute ago
project-8676c7966-p4b7f	anup1207/for_min i_projectmini_proj ect_tag	app: project pod-template-has h: 8676c7966	minikube	Running	0	314.00m	60.88Mi	a minute ago
project-8676c7966-prlc	anup1207/for_min i_projectmini_proj ect_tag	app: project pod-template-has h: 8676c7966	minikube	Running	0	352.00m	71.23Mi	a minute ago
project-8676c7966-z8vks	anup1207/for_min i_projectmini_proj ect_tag	app: project pod-template-has h: 8676c7966	minikube	Running	0	375.00m	72.69Mi	a minute ago
project-8676c7966-7qgdw	anup1207/for_min i_projectmini_proj ect_tag	app: project pod-template-has h: 8676c7966	minikube	Running	0	3.00m	114.25Mi	15 minutes ago

Type here to search

14:49 30-04-2023

kubernetes - Failed create pod s... x Kubernetes Dashboard x anup1207/for_mini_project gene... x +

127.0.0.1:54416/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/replicasets?namespace=default

kubernetes default Search +

Workloads > Replica Sets

Workloads N

- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods
- Replica Sets**
- Replication Controllers
- Stateful Sets

Service

- Ingresses N
- Ingress Classes
- Services N

Config and Storage

Config Maps N

CPU Usage

Memory Usage

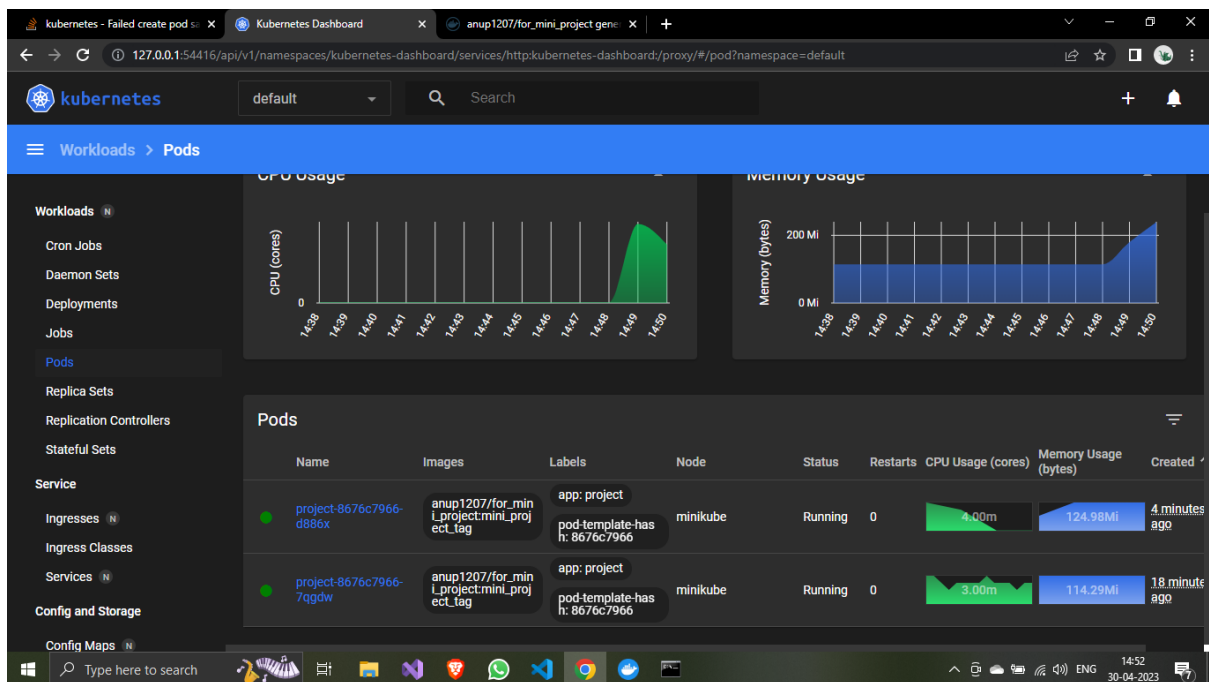
Replica Sets

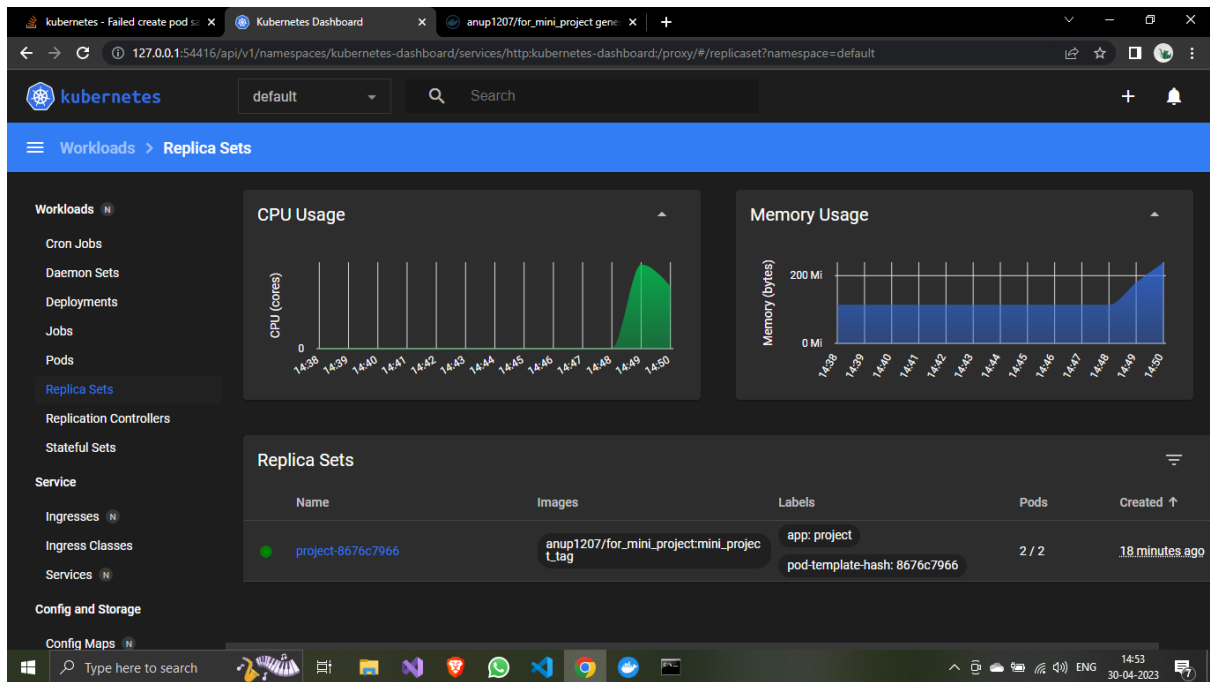
Name	Images	Labels	Pods	Created
project-8676c7966	anup1207/for_mini_project:mini_proj ect_tag	app: project pod-template-hash: 8676c7966	5 / 5	14 minutes ago

Type here to search

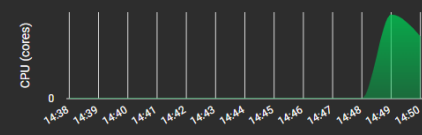
14:49 30-04-2023

```
Command Prompt
C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
project-8676c7966-7qgdw  1/1     Running   0           17m
project-8676c7966-d886x  1/1     Running   0           3m34s
project-8676c7966-p4b7f  1/1     Running   0           3m34s
project-8676c7966-prr1c  1/1     Running   0           3m34s
project-8676c7966-z8vks  1/1     Running   0           3m34s
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get rs
NAME                DESIRED   CURRENT   READY   AGE
project-8676c7966  5          5          5       17m
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl scale --current-replicas=5 --replicas=2 deployment/project
deployment.apps/project scaled
C:\Users\LENOVO>
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get rs
NAME                DESIRED   CURRENT   READY   AGE
project-8676c7966  2          2          2       18m
C:\Users\LENOVO>
C:\Users\LENOVO>kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
project-8676c7966-7qgdw  1/1     Running   0           18m
project-8676c7966-d886x  1/1     Running   0           3m58s
C:\Users\LENOVO>
C:\Users\LENOVO>
```

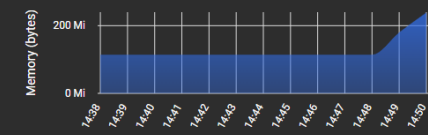




CPU Usage



Memory Usage



Replica Sets

Name	Images	Labels	Pods	Created ↑
project-8676c7966	anup1207/for_mini_project:mini_project_tag	app: project pod-template-hash: 8676c7966	2 / 2	18 minutes ago