

root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab

root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get namespaces

NAME	STATUS	AGE
default	Active	18d
kube-node-lease	Active	18d
kube-public	Active	18d
kube-system	Active	18d
kubernetes-dashboard	Active	15d

root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab#

NAME	READY	STATUS	RESTARTS	AGE
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etcd-minikube	1/1	Running	14 (76s ago)	18d
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kube-controller-manager-minikube	1/1	Running	13 (2d1h ago)	18d
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kube-scheduler-minikube	1/1	Running	13 (76s ago)	18d
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```
root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab
```

depploy.yml - lab - Visual Studio Code

File Edit Selection View Go Run Terminal Help

EXPLORER

LAB

depploy.yml

OUTLINE

TIMELINE

DOCKER CONTAINERS

DOCKER IMAGES

AZURE CONTAINER REGISTRY

DOCKER HUB

SUGGESTED DOCKER HUB IMAGES

Get Started

! depploy.yml

! depploy.yml > ...

io.k8s.api.apps.v1.Deployment (v1@deployment.json)

1 apiVersion: apps/v1

2 kind: Deployment

3 metadata:

4 name: deployment-1

5 namespace: default

6 labels:

7 app: myapp

8 spec:

9 selector:

10 matchLabels:

11 app: myapp

12 replicas: 3

13 template:

14 metadata:

15 labels:

16 app: myapp

17 spec:

18 containers:

19 - name: busy-box-container

20 image: busybox

21 resources:

22

PROBLEMS

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DEBUG CONSOLE

TERMINAL

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl apply -f depploy.yml

deployment.apps/deployment-1 created

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po

NAME	READY	STATUS	RESTARTS	AGE
deployment-1-7848fb885f-bg46t	0/1	Completed	0	13s
deployment-1-7848fb885f-cwrhz	0/1	ContainerCreating	0	13s
deployment-1-7848fb885f-xvcwg	0/1	Completed	0	13s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab#

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Spaces: 2

UTF-8

LF

YAML

Go Live

kubernetes://schema/apps/v1@deployment

Prettier+

Prettier

NAMESPACE	NAME	READY	UP - TO - DATE	AVAILABLE	AGE
default	deployment-1	0/3	3	0	62s
kube-system	coredns	1/1	1	1	18d
kubernetes-dashboard	dashboard-metrics-scraper	1/1	1	1	15d
kubernetes-dashboard	kubernetes-dashboard	1/1	1	1	15d

NAMESPACE	NAME	DESIRED	CURRENT	READY	AGE
default	deployment-1-7848fb885f	3	3	0	79s
kube-system	coredns-565d847f94	1	1	1	18d
kubernetes-dashboard	dashboard-metrics-scraper-b74747df5	1	1	1	15d
kubernetes-dashboard	kubernetes-dashboard-57bbdc5f89	1	1	1	15d

```
root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab#
```


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depploy.yml > ...

io.k8s.api.apps.v1.Deployment (v1@deployment.json)

1 apiVersion: apps/v1

2 kind: Deployment

3 metadata:

4 name: deployment-1

5 namespace: default

6 labels:

7 app: myapp

8 spec:

9 selector:

10 matchLabels:

11 app: myapp

12 replicas: 3

13 template:

14 metadata:

15 labels:

16 app: myapp

17 spec:

18 containers:

19 - name: busy-box-container

20 image: busybox

21 resources:

22

PROBLEMS

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root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl apply -f depploy.yml

deployment.apps/deployment-1 created

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po

NAME READY STATUS RESTARTS AGE

deployment-1-7848fb885f-bg46t 0/1 Completed 0 13s

deployment-1-7848fb885f-cwrhz 0/1 ContainerCreating 0 13s

deployment-1-7848fb885f-xvcwg 0/1 Completed 0 13s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po

NAME READY STATUS RESTARTS AGE

deployment-1-7848fb885f-bg46t 0/1 CrashLoopBackOff 1 (8s ago) 24s

deployment-1-7848fb885f-cwrhz 0/1 Completed 1 (11s ago) 24s

deployment-1-7848fb885f-xvcwg 0/1 CrashLoopBackOff 1 (4s ago) 24s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po

NAME READY STATUS RESTARTS AGE

deployment-1-7848fb885f-bg46t 0/1 CrashLoopBackOff 3 (29s ago) 94s

deployment-1-7848fb885f-cwrhz 0/1 CrashLoopBackOff 3 (21s ago) 94s

deployment-1-7848fb885f-xvcwg 0/1 CrashLoopBackOff 3 (23s ago) 94s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# zero pods will be ready

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kubernetes://schema/apps/v1@deployment

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EXPLORER

LAB

! deploy.yml

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SUGGESTED DOCKER HUB IMAGES

! deploy.yml > {} spec > {} template > {} spec > [] containers > {} 0 > name

io.k8s.api.apps.v1.Deployment (v1@deployment.json)

1 apiVersion: apps/v1

2 kind: Deployment

3 metadata:

4 name: deployment-1

5 namespace: default

6 labels:

7 app: myapp

8 spec:

9 selector:

10 matchLabels:

11 app: myapp

12 replicas: 3

13 template:

14 metadata:

15 labels:

16 app: myapp

17 spec:

18 containers:

19 - name: nginx-container

20 image: nginx

21 resources:

22

PROBLEMS

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TERMINAL

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl apply -f deploy.yml

deployment.apps/deployment-1 configured

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po

NAME READY STATUS RESTARTS AGE

deployment-1-7848fb885f-bg46t 0/1 CrashLoopBackOff 4 (60s ago) 2m49s

deployment-1-7848fb885f-cwrhz 0/1 CrashLoopBackOff 4 (39s ago) 2m49s

deployment-1-7848fb885f-xvcwg 0/1 CrashLoopBackOff 4 (44s ago) 2m49s

deployment-1-9c7fbdd58-pcj7m 0/1 ContainerCreating 0 3s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po

NAME READY STATUS RESTARTS AGE

deployment-1-9c7fbdd58-pcj7m 1/1 Running 0 21s

deployment-1-9c7fbdd58-rrxb7 1/1 Running 0 12s

deployment-1-9c7fbdd58-tk7pt 1/1 Running 0 16s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab#

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Spaces: 2

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Go Live

kubernetes://schema/apps/v1@deployment

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ActivitiesTerminal

root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab

root@ahmed-Lenovo-Y520-15IKBN: /home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl describe deployment deployment-1

Name: deployment-1

Namespace: default

CreationTimestamp: Wed, 18 Jan 2023 23:25:14 +0200

Labels: app=myapp

Annotations: deployment.kubernetes.io/revision: 2

Selector: app=myapp

Replicas: 3 desired | 3 updated | 3 total | 3 available | 0 unavailable

StrategyType: RollingUpdate

MinReadySeconds: 0

RollingUpdateStrategy: 25% max unavailable, 25% max surge

Pod Template:

Labels: app=myapp

Containers:

nginx-container:

Image: nginx

Port: <none>

Host Port: <none>

Environment: <none>

Mounts: <none>

Volumes: <none>

Conditions:

Type	Status	Reason
Available	True	MinimumReplicasAvailable
Progressing	True	NewReplicaSetAvailable

OldReplicaSets: <none>

NewReplicaSet: deployment-1-9c7fbdd58 (3/3 replicas created)

Events:

Type	Reason	Age	From	Message
Normal	ScalingReplicaSet	4m	deployment-controller	Scaled up replica set deployment-1-7848fb885f to 3
Normal	ScalingReplicaSet	74s	deployment-controller	Scaled up replica set deployment-1-9c7fbdd58 to 1
Normal	ScalingReplicaSet	69s	deployment-controller	Scaled down replica set deployment-1-7848fb885f to 2 from 3
Normal	ScalingReplicaSet	69s	deployment-controller	Scaled up replica set deployment-1-9c7fbdd58 to 2 from 1
Normal	ScalingReplicaSet	65s	deployment-controller	Scaled down replica set deployment-1-7848fb885f to 1 from 2
Normal	ScalingReplicaSet	65s	deployment-controller	Scaled up replica set deployment-1-9c7fbdd58 to 3 from 2
Normal	ScalingReplicaSet	60s	deployment-controller	Scaled down replica set deployment-1-7848fb885f to 0 from 1

Type	Reason	Age	From	Message
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ActivitiesVisual Studio Codenamespace.yml - lab - Visual Studio Code

FileEditSelectionViewGoRunTerminalHelp

EXPLORER

LAB

depploy.ymlnamespace.yml

! deploy.yml! namespace.yml x

! namespace.yml > ...
io.k8s.api.core.v1.Namespace (v1@namespace.json)
1 apiVersion: v1
2 kind: Namespace
3 metadata:
4 name: dev
5
6 spec:
7

PROBLEMSOUTPUTDEBUG CONSOLETERMINAL

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl apply -f namespace.yml
namespace/dev created
root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get namespaces
NAMESTATUSAGE
defaultActive18d
devActive9s
kube-node-leaseActive18d
kube-publicActive18d
kube-systemActive18d
kubernetes-dashboardActive15d
root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab#

OUTLINE
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SUGGESTED DOCKER HUB IMAGES

Ln 7, Col 1Spaces: 2UTF-8LFYAMLGo LiveNo JSON SchemaPrettier+Prettier

EXPLORER

LAB

depploy.yml

namespace.yml

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! depploy.yml x

! namespace.yml

! depploy.yml > {} spec > {} template > {} spec > [] containers > {} 0 > {} resources > {} limits

io.k8s.api.apps.v1.Deployment (v1@deployment.json)

1 apiVersion: apps/v1

2 kind: Deployment

3 metadata:

4 name: dev-deploy

5 namespace: dev

6 labels:

7 app: myapp

8 spec:

9 selector:

10 matchLabels:

11 app: myapp

12 replicas: 2

13 template:

14 metadata:

15 labels:

16 app: myapp

17 spec:

18 containers:

19 - name: redis-container

20 image: redis

21 resources:

22 requests:

23 cpu: 500m

24 memory: 1000Mi

25 limits:

26 cpu: 1000m

27 memory: 2000Mi

PROBLEMS

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TERMINAL

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl apply -f depploy.yml

deployment.apps/dev-deploy created

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po -n dev

NAME READY STATUS RESTARTS AGE

dev-deploy-df5bfb8bb-8k6zs 0/1 ContainerCreating 0 8s

dev-deploy-df5bfb8bb-8rtm2 0/1 ContainerCreating 0 8s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab# kubectl get po -n dev

NAME READY STATUS RESTARTS AGE

dev-deploy-df5bfb8bb-8k6zs 1/1 Running 0 22s

dev-deploy-df5bfb8bb-8rtm2 1/1 Running 0 22s

root@ahmed-Lenovo-Y520-15IKBN:/home/ahmed/Downloads/Sprints/k8s/day-2/lab#

Ln 28, Col 1

Spaces: 2

UTF-8

LF

{ } YAML

Go Live

kubernetes://schema/apps/v1@deployment

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Prettier