

```

Normal Scheduled 47m default-scheduler Successfully assigned default/my-pod to minikube
Normal Pulling 47m kubelet Pulling image "nginx"
Normal Pulled 47m kubelet Successfully pulled image "nginx" in 28.707s (28.707s including waiting). Image size: 192004242 bytes.
Normal Created 47m kubelet Created container: my-pod
Normal Started 47m kubelet Started container my-pod
maahij@MOHAMEDMAAHIJ:~$ kubectl exec -it my-pod -- /bin/bash
root@my-pod:/# ls
bin boot dev docker-entrypoint.d docker-entrypoint.sh etc home lib lib64 media mnt opt proc root run sbin srv sys tmp usr var
root@my-pod:/# cd usr
root@my-pod:/usr# ls
bin games include lib lib64 libexec local sbin share src
root@my-pod:/usr# cd local
root@my-pod:/usr/local# ls
bin etc games include lib man sbin share src
root@my-pod:/usr/local# cd share
root@my-pod:/usr/local/share# ls
ca-certificates fonts man
root@my-pod:/usr/local/share# cd
root@my-pod:~# exit
exit
maahij@MOHAMEDMAAHIJ:~$ sudo nano pod.yml
[sudo] password for maahij:
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f pod.yml
error: error parsing pod.yml: error converting YAML to JSON: yaml: line 7: mapping values are not allowed in this context
maahij@MOHAMEDMAAHIJ:~$ sudo nano pod.yml
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f pod.yml
Error from server (BadRequest): error when creating "pod.yml": Pod in version "v1" cannot be handled as a Pod: json: cannot unmarshal string into Go struct field Container.spec.containers.ports of type v1.ContainerPort
maahij@MOHAMEDMAAHIJ:~$ sudo nano pod.yml
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f pod.yml
pod/my-app created
maahij@MOHAMEDMAAHIJ:~$ ls
docker-compose.yaml jenkinsfile my-app pod.yml web-app
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod
NAME READY STATUS RESTARTS AGE
my-app 0/1 ContainerCreating 0 33s
my-pod 1/1 Running 0 63m
maahij@MOHAMEDMAAHIJ:~$ kubectl delete pod my-pod
pod "my-pod" deleted
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod
NAME READY STATUS RESTARTS AGE
my-app 0/1 ContainerCreating 0 112s
maahij@MOHAMEDMAAHIJ:~$ kubectl describe pod my-app

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cfa20ed6027 registry.k8s.io/pause:3.10 "/pause" 12 minutes ago Up 12 minutes k8s_POD_my-app-default_5b422e3b-c13b-4
6ab-9d03-59d078e556e4_0
4d1561280f22 6e38f40d628d "/storage-provisioner" About an hour ago Up About an hour k8s_storage-provisioner_storage-provis
ioner_kube-system_4b5be87e-d701-4625-992e-882b3382a356_5
41ed36f2e150 c69fa2e9cbf5 "/coredns -conf /etc.." About an hour ago Up About an hour k8s_coredns_coredns-668d6bf9bc-tsfbp_k
ube-system_c9c7c59f-e1d5-4683-a304-c092b6a8900f_2
15254e67b3d9 040f9f8aac8c "/usr/local/bin/kube.." About an hour ago Up About an hour k8s_kube-proxy_kube-proxy-9x7ws_kube-s
ystem_653b811a-6fb4-4221-bf15-8736b974bb7e_2
1b15d4f1487b registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_kube-proxy-9x7ws_kube-system_6
53b811a-6fb4-4221-bf15-8736b974bb7e_2
ba68a052971f registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_storage-provisioner_kube-syste
m_4b5be87e-d701-4625-992e-882b3382a356_2
de4a335e6cf0 registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_coredns-668d6bf9bc-tsfbp_kube-
system_c9c7c59f-e1d5-4683-a304-c092b6a8900f_2
e187d1daede8 a389e107f4ff "kube-scheduler --au.." About an hour ago Up About an hour k8s_kube-scheduler_kube-scheduler-mini
kube_kube-system_d14ce008bee3a1f3bd7cf547688f9dfe_2
61ed0ed46004 8cab3d2a8bd0 "kube-controller-man.." About an hour ago Up About an hour k8s_kube-controller-manager_kube-contr
oller-manager-minikube_kube-system_843c74f7b3bc7d7040a05c31708a6a30_2
d793337540c9 a9e7e6b294ba "etcd --advertise-cl.." About an hour ago Up About an hour k8s_etcd_etcd-minikube_kube-system_2b4
b75c2a289008e0b381891e9683040_2
4287dd6c9eb3 c2e17b8d0f4a "kube-apiserver --ad.." About an hour ago Up About an hour k8s_kube-apiserver_kube-apiserver-mini
kube_kube-system_d72d0a4cf4be077c9919d46b7358a5e8_2
54c44f83c21f registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_kube-scheduler-minikube_kube-s
ystem_d14ce008bee3a1f3bd7cf547688f9dfe_3
cc8aae531d88 registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_kube-controller-manager-miniku
be_kube-system_843c74f7b3bc7d7040a05c31708a6a30_3
ecef359f479b registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_kube-apiserver-minikube_kube-s
ystem_d72d0a4cf4be077c9919d46b7358a5e8_2
406c5e21acdf registry.k8s.io/pause:3.10 "/pause" About an hour ago Up About an hour k8s_POD_etcd-minikube_kube-system_2b4b
75c2a289008e0b381891e9683040_2
docker@minikube:~$ exit
Logout
maahij@MOHAMEDMAAHIJ:~$ minikube ip
minikube: command not found
maahij@MOHAMEDMAAHIJ:~$ minikube ip
192.168.49.2
maahij@MOHAMEDMAAHIJ:~$ kubectl get rs
No resources found in default namespace.
maahij@MOHAMEDMAAHIJ:~$ kubectl create deployment web-nginx --image=nginx --replicas=1
deployment.apps/web-nginx created
maahij@MOHAMEDMAAHIJ:~$ kubectl get deploy
NAME READY UP-TO-DATE AVAILABLE AGE
web-nginx 1/1 1 1 23s
maahij@MOHAMEDMAAHIJ:~$ |

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NAME                READY    STATUS    RESTARTS   AGE
my-deploy-7fdbcd9d55-m565x    1/1      Running    0           42m
maahij@MOHAMEDMAAHIJ:~$ kubectl create ns my-deploy
namespace/my-deploy created
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f deploy.yml -n my-deploy
deployment.apps/my-deploy created
The Service "my-service" is invalid: spec.ports[0].nodePort: Invalid value: 30002: provided port is already allocated
maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
[sudo] password for maahij:
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f deploy.yml -n my-deploy
deployment.apps/my-deploy configured
The Service "my-service" is invalid: spec.ports[0].nodePort: Invalid value: 30002: provided port is already allocated
maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f deploy.yml -n my-deploy
deployment.apps/my-deploy configured
service/my-service created
maahij@MOHAMEDMAAHIJ:~$ kubectl get all --namespace my-deploy
NAME                READY    STATUS    RESTARTS   AGE
pod/my-deploy-7ddd586d4-2bwxx    1/1      Running    0           7m50s

NAME                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
service/my-service  NodePort    10.98.31.31    <none>          9001:30022/TCP   7m34s

NAME                READY    UP-TO-DATE    AVAILABLE    AGE
deployment.apps/my-deploy    1/1      1              1            8m40s

NAME                DESIRED    CURRENT    READY    AGE
replicaset.apps/my-deploy-7ddd586d4    1          1          1        7m50s
replicaset.apps/my-deploy-7fdbcd9d55    0          0          0        8m40s
maahij@MOHAMEDMAAHIJ:~$ sudo nano ns.yml
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f ns.yml
error: unable to decode "ns.yml": json: cannot unmarshal string into Go struct field metadataOnlyObject.metadata of type v1.ObjectMeta
maahij@MOHAMEDMAAHIJ:~$ sudo nano ns.yml
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f ns.yml
namespace/my-demo-ns created
maahij@MOHAMEDMAAHIJ:~$ sudo nano pod-ns.yml
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f pod-ns.yml
pod/my-pod created
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod my-demo-ns
Error from server (NotFound): pods "my-demo-ns" not found
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod -n my-demo-ns
NAME                READY    STATUS    RESTARTS   AGE
my-pod              1/1      Running    0           2m40s
maahij@MOHAMEDMAAHIJ:~$

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t:1px;background-color:#525D76;border:none;}/></style></head><body><h1>HTTP Status 404 - Not Found</h1><hr class="line" /><p><b>Type</b> Status Report</p><p><b>Description</b> The origin server did not find a current representation for the target resource or is not willing to disclose that one exists.</p><hr class="line" /><h3>Apache Tomcat/9.0.102</h3></body></html>maahij@MOHAMEDMAAHIJ:~$ curl http://192.168.49.2:30002/maven-web-app/
<!doctype html><html lang="en"><head><title>HTTP Status 404 - Not Found</title><style type="text/css">body {font-family:Tahoma,Arial,sans-serif;} h1, h2, h3
, b {color:white;background-color:#525D76;} h1 {font-size:22px;} h2 {font-size:16px;} h3 {font-size:14px;} p {font-size:12px;} a {color:black;} .line {height:1px;background-color:#525D76;border:none;}/></style></head><body><h1>HTTP Status 404 - Not Found</h1><hr class="line" /><p><b>Type</b> Status Report</p><p><b>Description</b> The origin server did not find a current representation for the target resource or is not willing to disclose that one exists.</p><hr class="line" /><h3>Apache Tomcat/9.0.102</h3></body></html>maahij@MOHAMEDMAAHIJ:~$ curl http://192.168.49.2:30002/maven-web-app
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maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
maahij@MOHAMEDMAAHIJ:~$ minikube service my-service

|-----|
| NAMESPACE | NAME | TARGET PORT | URL |
|-----|
| default | my-service | 9000 | http://192.168.49.2:30002 |
|-----|

> Starting tunnel for service my-service.

|-----|
| NAMESPACE | NAME | TARGET PORT | URL |
|-----|
| default | my-service | | http://127.0.0.1:46547 |
|-----|

🐛 Opening service default/my-service in default browser...
👉 http://127.0.0.1:46547
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.
^C 🐛 Stopping tunnel for service my-service.
maahij@MOHAMEDMAAHIJ:~$ curl http://192.168.49.2:30002
<!doctype html><html lang="en"><head><title>HTTP Status 404 - Not Found</title><style type="text/css">body {font-family:Tahoma,Arial,sans-serif;} h1, h2, h3
, b {color:white;background-color:#525D76;} h1 {font-size:22px;} h2 {font-size:16px;} h3 {font-size:14px;} p {font-size:12px;} a {color:black;} .line {height:1px;background-color:#525D76;border:none;}/></style></head><body><h1>HTTP Status 404 - Not Found</h1><hr class="line" /><p><b>Type</b> Status Report</p><p><b>Description</b> The origin server did not find a current representation for the target resource or is not willing to disclose that one exists.</p><hr class="line" /><h3>Apache Tomcat/9.0.102</h3></body></html>maahij@MOHAMEDMAAHIJ:~$ curl http://192.168.49.2:30002/maven-web-app
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```

```
my-rs-sfz4r          1/1      Running   0          39m
my-rs-v7bw5          1/1      Running   0          39m
web-nginx-546f4997bb-t9hmt  1/1      Running   0          3h4m
maahij@MOHAMEDMAAHIJ:~$ ls
deploy.yml  docker-compose.yaml  jenkinsfile  my-app  pod.yml  rs.yml  web-app
maahij@MOHAMEDMAAHIJ:~$ sudo nano deployment.yml
[sudo] password for maahij:
Sorry, try again.
[sudo] password for maahij:
Sorry, try again.
[sudo] password for maahij:
sudo: 3 incorrect password attempts
maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
[sudo] password for maahij:
maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
[sudo] password for maahij:
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f deploy.yml
deployment.apps/my-deploy configured
service/my-service created
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod
NAME                                READY   STATUS    RESTARTS   AGE
my-app-577td45d4b-b6w             1/1     Running   0          67s
my-deploy-577td45d4b-b6w         1/1     Running   0          67s
```



```

my-rs-sfz4r          1/1      Running   0          39m
my-rs-v7bw5          1/1      Running   0          39m
web-nginx-546f4997bb-t9hmt 1/1      Running   0          3h4m
maahij@MOHAMEDMAAHIJ:~$ ls
deploy.yml  docker-compose.yaml  jenkinsfile  my-app  pod.yml  rs.yml  web-app
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maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
[sudo] password for maahij:
maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml
[sudo] password for maahij:
maahij@MOHAMEDMAAHIJ:~$ kubectl apply -f deploy.yml
deployment.apps/my-deploy configured
service/my-service created
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod
NAME                                READY    STATUS              RESTARTS   AGE
my-app                              1/1      Running             0          4h11m
my-deploy-774d45dbbb-hftsw         1/1      Running             0          67m
my-deploy-774d45dbbb-l9jpg         1/1      Running             0          67m
my-deploy-774d45dbbb-rmn8r         0/1      ImagePullBackOff    0          10s
my-deploy-774d45dbbb-zldbj         1/1      Running             0          67m
my-rs-2shv8                         1/1      Running             0          91m
my-rs-fqcjq                        1/1      Running             0          91m
my-rs-sfz4r                        1/1      Running             0          91m
my-rs-v7bw5                        1/1      Running             0          91m
web-nginx-546f4997bb-t9hmt         1/1      Running             0          3h56m
maahij@MOHAMEDMAAHIJ:~$ kubectl get pod
NAME                                READY    STATUS              RESTARTS   AGE
my-app                              1/1      Running             0          4h14m
my-deploy-774d45dbbb-hftsw         1/1      Running             0          69m
my-deploy-774d45dbbb-l9jpg         1/1      Running             0          69m
my-deploy-774d45dbbb-rmn8r         0/1      ImagePullBackOff    0          2m28s
my-deploy-774d45dbbb-zldbj         1/1      Running             0          69m
my-rs-2shv8                         1/1      Running             0          94m
my-rs-fqcjq                        1/1      Running             0          94m
my-rs-sfz4r                        1/1      Running             0          94m
my-rs-v7bw5                        1/1      Running             0          94m
web-nginx-546f4997bb-t9hmt         1/1      Running             0          3h58m
maahij@MOHAMEDMAAHIJ:~$ sudo nano deploy.yml

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```
4e5b554b7345: Layer already exists
5f70bf18a086: Layer already exists
43c9f8a1dd61: Layer already exists
bc05267c613b: Layer already exists
39cf0ac89a5a: Layer already exists
3359bc3d7a6a: Layer already exists
f844dcf94898: Layer already exists
4b7c01ed0534: Layer already exists
ec7aa90567e7: Pushed
latest: digest: sha256:4642d9856a1c831cc66cf7d9ce61d8a36d6ffe19f4fb294c9d7e5970c244ea30 size: 2409
[Pipeline] }
[Pipeline] // withDockerRegistry
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

```
Restart Count: 0
Environment: <none>
Mounts:
  /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-dr28h (ro)
Conditions:
  Type             Status
  PodReadyToStartContainers True
  Initialized       True
  Ready             True
  ContainersReady   True
  PodScheduled      True
Volumes:
  kube-api-access-dr28h:
    Type: Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName: kube-root-ca.crt
    ConfigMapOptional: <nil>
    DownwardAPI: true
QoS Class: BestEffort
Node-Selectors: <none>
Tolerations: node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
              node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Events:
  Type      Reason      Age   From      Message
  ----      -
  Normal    Scheduled   2m54s default-scheduler Successfully assigned default/my-app to minikube
  Normal    Pulling     2m53s kubelet    Pulling image "maahij14/simplewebapp1:latest"
  Normal    Pulled      14s    kubelet    Successfully pulled image "maahij14/simplewebapp1:latest" in 2m38.278s (2m38.278s including waiting). Image size: 520040316 bytes.
  Normal    Created     14s    kubelet    Created container: my-app-container
  Normal    Started     14s    kubelet    Started container my-app-container
maahij@MOHAMEDMAAHIJ:~$ kubectl exec -it my-app -- /bin/bash
root@my-app:/usr/local/tomcat# ls
bin      conf      filtered-KEYS  LICENSE  native-jni-lib  README.md  RUNNING.txt  upstream-KEYS  webapps.dist
BUILDING.txt  CONTRIBUTING.md  lib          logs     NOTICE          RELEASE-NOTES  temp         webapps      work
root@my-app:/usr/local/tomcat# cd webapps
root@my-app:/usr/local/tomcat/webapps# ls
maven-web-app  maven-web-app.war
root@my-app:/usr/local/tomcat/webapps# cd ..
bash: cd..: command not found
root@my-app:/usr/local/tomcat/webapps# cd ..
root@my-app:/usr/local/tomcat# exit
exit
maahij@MOHAMEDMAAHIJ:~$ kubectl run my-pod --image=nginx --port=80 --replicaSet=1
```