

## Iniciando el nginx en kubectl

```
Command Prompt
Microsoft Windows [Version 10.0.19045.5131]
(c) Microsoft Corporation. All rights reserved.

C:\Users\User>kubectl get nodes
NAME                STATUS    ROLES    AGE   VERSION
docker-desktop      Ready    control-plane   74s   v1.32.2

C:\Users\User>kubectl create deployment nginx-deploy --image=nginx
deployment.apps/nginx-deploy created

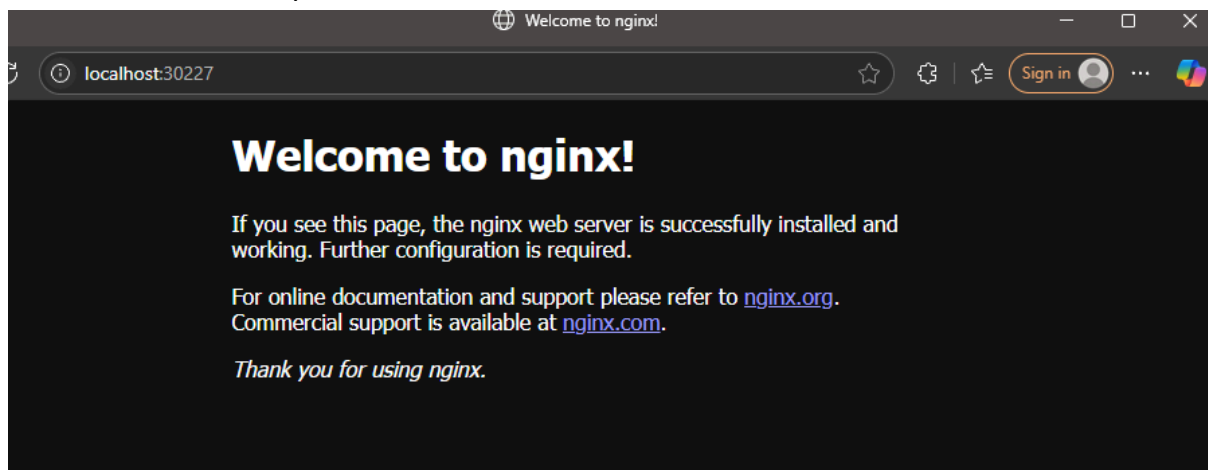
C:\Users\User>
C:\Users\User>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deploy-c9d9f6c6c-nxvzj       0/1     ContainerCreating   0           5s

C:\Users\User>
C:\Users\User>kubectl expose deployment nginx-deploy --type=NodePort --port=80
service/nginx-deploy exposed

C:\Users\User>kubectl get services
NAME                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
kubernetes          ClusterIP   10.96.0.1     <none>         443/TCP          2m12s
nginx-deploy        NodePort    10.107.190.50 <none>         80:30227/TCP     21s

C:\Users\User>
C:\Users\User>
```

## Prueba del servicio expuesto



## Creacion de replicas y Eliminación de estas

```
C:\Users\User>kubectl scale deployment nginx-deploy --replicas=3
deployment.apps/nginx-deploy scaled

C:\Users\User>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deploy-c9d9f6c6c-87q79       0/1     ContainerCreating   0           1s
nginx-deploy-c9d9f6c6c-nxvzj       1/1     Running            0          99s
nginx-deploy-c9d9f6c6c-p9kq2       0/1     ContainerCreating   0           1s

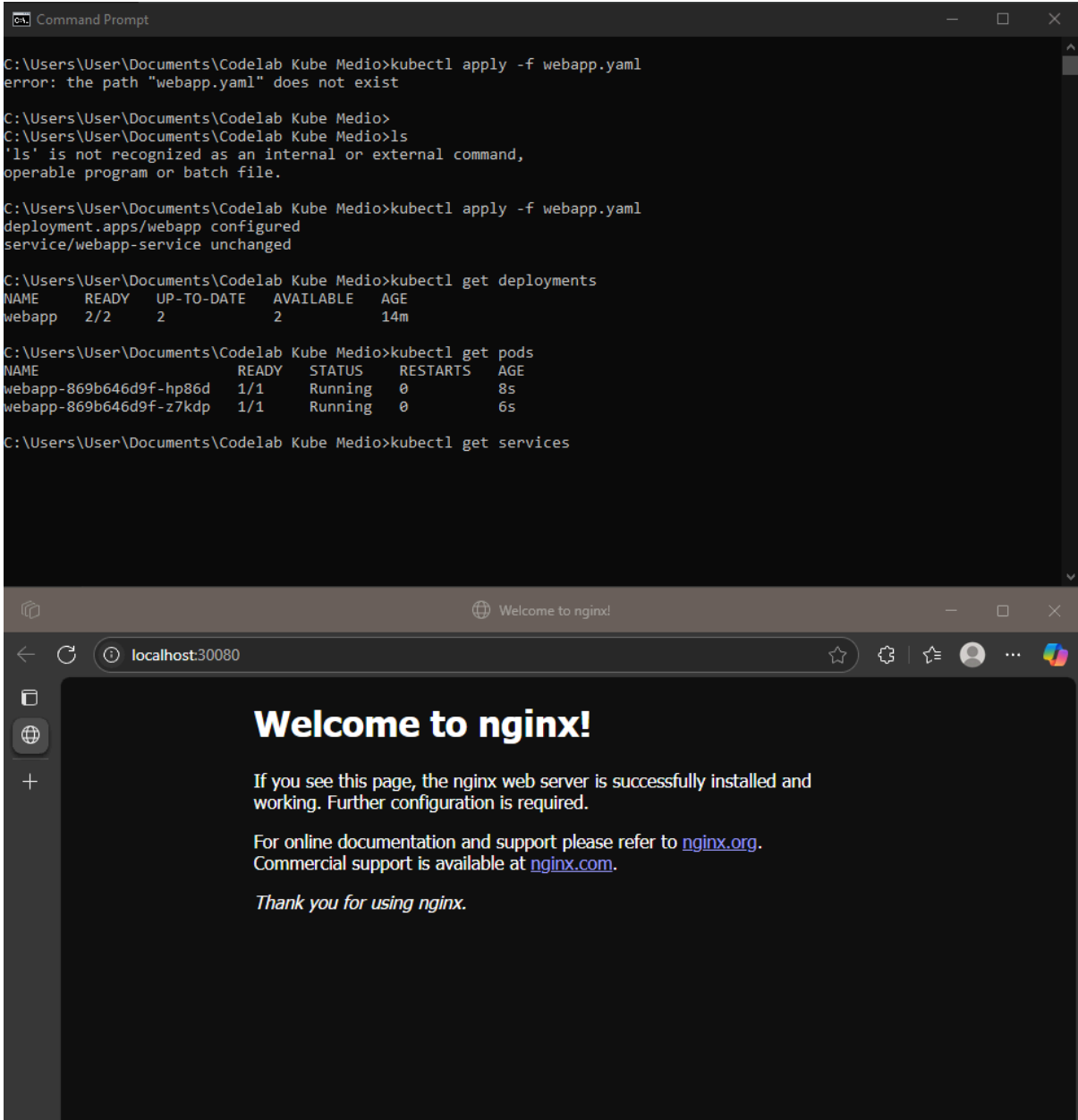
C:\Users\User>kubectl delete service nginx-deploy
service "nginx-deploy" deleted

C:\Users\User>kubectl delete deployment nginx-deploy
deployment.apps "nginx-deploy" deleted

C:\Users\User>
```

## 2 Kubernetes Intermedio

iniciamos el webapp.yaml



The image shows a Windows Command Prompt window and a web browser window. The Command Prompt window is titled "Command Prompt" and shows the following commands and output:

```
C:\Users\User\Documents\Codelab Kube Medio>kubectl apply -f webapp.yaml
error: the path "webapp.yaml" does not exist

C:\Users\User\Documents\Codelab Kube Medio>
C:\Users\User\Documents\Codelab Kube Medio>ls
'ls' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\User\Documents\Codelab Kube Medio>kubectl apply -f webapp.yaml
deployment.apps/webapp configured
service/webapp-service unchanged

C:\Users\User\Documents\Codelab Kube Medio>kubectl get deployments
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
webapp    2/2     2            2           14m

C:\Users\User\Documents\Codelab Kube Medio>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
webapp-869b646d9f-hp86d            1/1     Running   0           8s
webapp-869b646d9f-z7kdp            1/1     Running   0           6s

C:\Users\User\Documents\Codelab Kube Medio>kubectl get services
```

The web browser window is titled "Welcome to nginx!" and shows the following content:

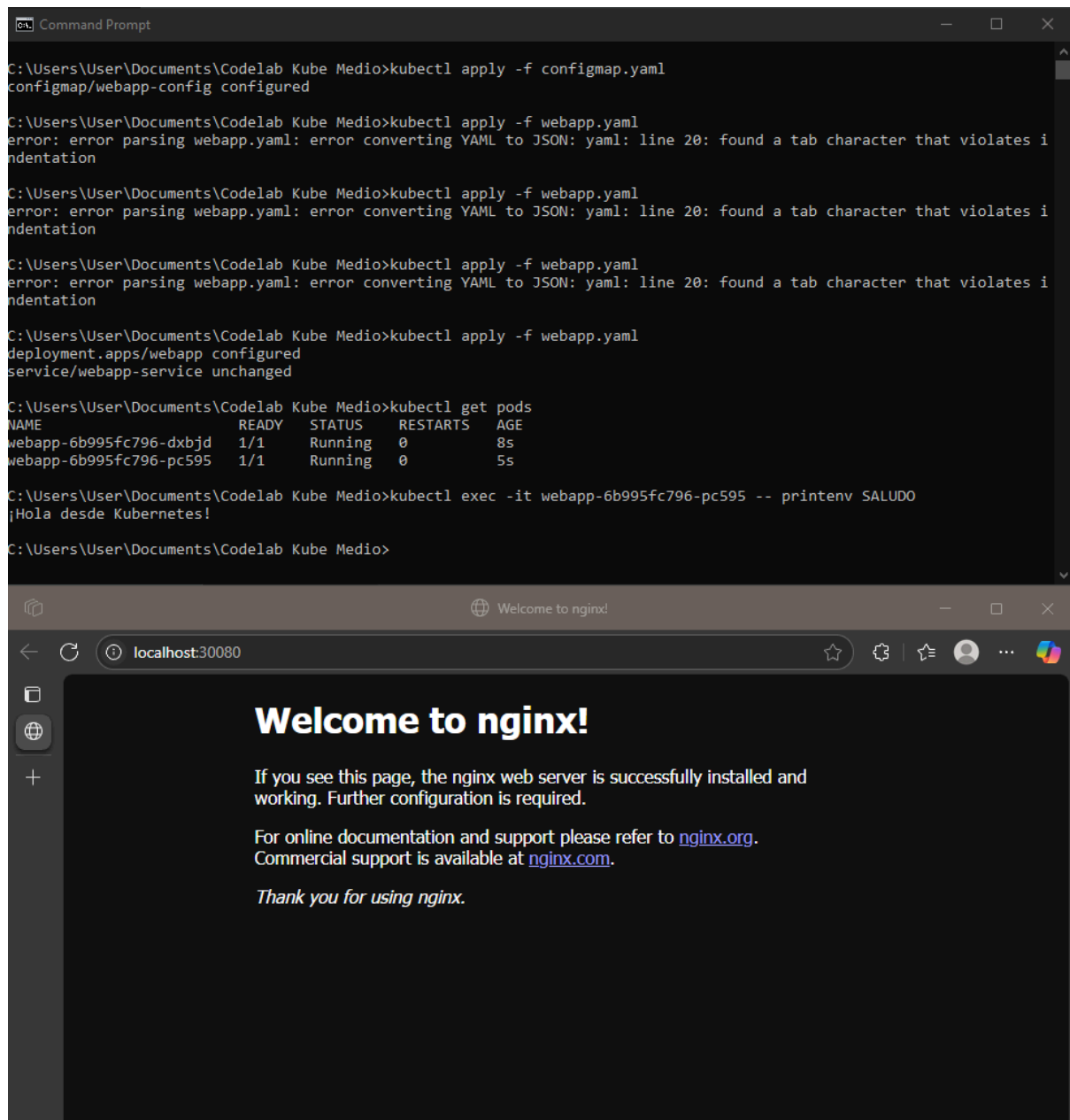
**Welcome to nginx!**

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](https://nginx.org).  
Commercial support is available at [nginx.com](https://nginx.com).

*Thank you for using nginx.*

Paso 5 Completado externalizar configuraciones con ConfigMap



Punto 6 terminado Manejar información sensible con Secrets

```
Command Prompt

C:\Users\User\Documents\Codelab Kube Medio>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
webapp-6b995fc796-dxbjd             1/1     Running   0           8s
webapp-6b995fc796-pc595             1/1     Running   0           5s

C:\Users\User\Documents\Codelab Kube Medio>kubectl exec -it webapp-6b995fc796-pc595 -- printenv SALUDO
¡Hola desde Kubernetes!

C:\Users\User\Documents\Codelab Kube Medio>kubectl apply -f secret.yaml
secret/webapp-secret created

C:\Users\User\Documents\Codelab Kube Medio>kubectl apply -f webapp.yaml
deployment.apps/webapp configured
service/webapp-service unchanged

C:\Users\User\Documents\Codelab Kube Medio>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
webapp-6b995fc796-dxbjd             1/1     Running   0           2m31s
webapp-6b995fc796-pc595             0/1     Completed 0           2m28s
webapp-894cd5756-4pzg5             1/1     Running   0           4s
webapp-894cd5756-zj97              0/1     ContainerCreating 0           1s

C:\Users\User\Documents\Codelab Kube Medio>kubectl exec -it <nombre-del-pod> -- printenv PASSWORD
The system cannot find the file specified.

C:\Users\User\Documents\Codelab Kube Medio>kubectl exec -it webapp-894cd5756-4pzg5 -- printenv PASSWORD
seguro123

C:\Users\User\Documents\Codelab Kube Medio>
```

## Punto 7 Terminado Montar archivos como volúmenes (configuración por archivo)

```
localhost:31882 Command Prompt

C:\Users\User\Documents\Codelab Kube Medio>kubectl expose deployment webapp-volumen --type=NodePort --port=80 --name=webapp-volumen-service
Error from server (AlreadyExists): services "webapp-volumen-service" already exists

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete service webapp-volumen-service
service "webapp-volumen-service" deleted

C:\Users\User\Documents\Codelab Kube Medio>kubectl get services
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
kubernetes          ClusterIP   10.96.0.1     <none>         443/TCP          51m
webapp-service       NodePort    10.98.23.112 <none>         80:30080/TCP     30m

C:\Users\User\Documents\Codelab Kube Medio>kubectl expose deployment webapp-volumen --type=NodePort --port=80 --name=webapp-volumen-service
service/webapp-volumen-service exposed

C:\Users\User\Documents\Codelab Kube Medio>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
webapp-894cd5756-4pzg5             1/1     Running   0           10m
webapp-894cd5756-zj97              1/1     Running   0           10m
webapp-volumen-7644fbd5d7-67k5b    1/1     Running   0           85s

C:\Users\User\Documents\Codelab Kube Medio>kubectl get services
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
kubernetes          ClusterIP   10.96.0.1     <none>         443/TCP          51m
webapp-service       NodePort    10.98.23.112 <none>         80:30080/TCP     30m
webapp-volumen-service NodePort    10.99.19.203 <none>         80:31882/TCP     21s

C:\Users\User\Documents\Codelab Kube Medio>
```

## Punto 8 Limpieza de servicios

```
C:\Users\User\Documents\Codelab Kube Medio>kubectl delete -f webapp.yaml
deployment.apps "webapp" deleted
service "webapp-service" deleted

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete -f configmap.yaml
configmap "webapp-config" deleted

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete -f secret.yaml
secret "webapp-secret" deleted

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete -f config-volume.yaml
configmap "html-config" deleted

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete -f webapp-volumen.yaml
deployment.apps "webapp-volumen" deleted

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete service webapp-service
Error from server (NotFound): services "webapp-service" not found

C:\Users\User\Documents\Codelab Kube Medio>kubectl delete service webapp-volumen-service
service "webapp-volumen-service" deleted

C:\Users\User\Documents\Codelab Kube Medio>
```

paso 9

```
Command Prompt

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl apply -f db1.yaml
persistentvolumeclaim/db1-pvc unchanged
service/db1 unchanged
deployment.apps/db1 unchanged

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl apply -f db2.yaml
persistentvolumeclaim/db2-pvc unchanged
service/db2 unchanged
deployment.apps/db2 unchanged

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl apply -f pais-service.yaml
service/pais-service unchanged
deployment.apps/pais-service unchanged

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl apply -f auth-service.yaml
service/auth-service unchanged
deployment.apps/auth-service unchanged

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>
C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
auth-service-68d854bc97-rzc8x       0/1     Running   0           103s
db1-dbd647-tk9gm                    1/1     Running   0           2m5s
db2-6ddd5445f5-f4jqz                1/1     Running   0           3m8s
pais-service-796bb57fcc-jq6xf       0/1     Running   0           2m4s

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl get svc
NAME            TYPE        CLUSTER-IP    EXTERNAL-IP  PORT(S)    AGE
auth-service    ClusterIP   10.99.193.66  <none>       8080/TCP   103s
db1             ClusterIP   10.107.228.51 <none>       5432/TCP   2m5s
db2             ClusterIP   10.99.83.117  <none>       5432/TCP   3m8s
pais-service    ClusterIP   10.100.233.28 <none>       8080/TCP   2m4s

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl port-forward svc/auth-service 8081:8080
Forwarding from 127.0.0.1:8081 -> 8080
Forwarding from [::1]:8081 -> 8080
Handling connection for 8081
Handling connection for 8081

C:\Users\User\Documents\Codelab Kube Medio\k8s-auth-demo>kubectl port-forward svc/pais-service 8082:8080
Forwarding from 127.0.0.1:8082 -> 8080
Forwarding from [::1]:8082 -> 8080
Handling connection for 8082
Handling connection for 8082
```