Aplicar archivo y rectificar:

```
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f webapp.yaml
deployment.apps/webapp created
service/webapp-service created
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get deployments
>> kubectl get pods
>> kubectl get services
NAME
         READY
                 UP-TO-DATE
                              AVAILABLE
                                          AGE
webapp
         0/2
                 2
                                          27s
NAME
                         READY
                                STATUS
                                                              RESTARTS
                                                                          AGE
webapp-894cd5756-vgltd
                         0/1
                                 CreateContainerConfigError
                                                              0
                                                                          27s
webapp-894cd5756-xmfcp
                         0/1
                                 CreateContainerConfigError
                                                              0
                                                                          27s
NAME
                 TYPE
                             CLUSTER-IP
                                             EXTERNAL-IP
                                                           PORT(S)
                                                                           AGE
                 ClusterIP
                             10.96.0.1
                                             <none>
                                                           443/TCP
kubernetes
                                                                           18m
```

```
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get pods
NAME
                                  STATUS
                                             RESTARTS
                          READY
                                                        AGE
webapp-869b646d9f-8vwvi
                          1/1
                                  Runnina
                                             0
                                                        24s
webapp-869b646d9f-nd9sm
                          1/1
                                  Running
                                             0
                                                        22s
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get services
NAME
                 TYPE
                             CLUSTER-IP
                                              EXTERNAL-IP
                                                            PORT(S)
                                                                            AGE
                 ClusterIP
                             10.96.0.1
                                                            443/TCP
kubernetes
                                              <none>
                                                                            20m
webapp-service
                 NodePort
                             10.101.234.89
                                                            80:30080/TCP
                                                                            2m12s
                                              <none>
```

Abrir en el navegador:



Crear Configmap, editar WebApp, replicar y verificar:

```
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f configmap.yaml
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f webapp.yaml
deployment.apps/webapp configured
service/webapp-service unchanged
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get pods
                          READY
                                  STATUS
                                            RESTARTS
                                                       AGE
webapp-6b995fc796-98mg2
                          1/1
                                  Running
                                            0
                                                       11s
webapp-6b995fc796-cfxww
                         1/1
                                  Running
                                            0
                                                       8s
```

Usando secret en la app, verificando y replicando:

```
secret/webapp-secret created
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> <mark>kubectl</mark> apply -f webapp.yaml
deployment.apps/webapp configured
service/webapp-service unchanged
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get pods
                          READY STATUS
                                             RESTARTS
                                                         AGE
                          1/1
webapp-894cd5756-hmwcc
                                  Running 0
                                                         45
                          1/1
webapp-894cd5756-qblsk
                                  Running 0
                                                         6s
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> <mark>kubectl</mark> exec -it > -- printenv PASSWORD<mark>^C</mark>
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> <mark>kubectl</mark> exec -it webapp-894cd5756-hmwcc -- pr
intenv PASSWORD
securo123
```

Montando volúmenes y exponiéndolos:

```
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f config-volume.yaml configmap/html-config created
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f webapp-volumen.yaml deployment.apps/webapp-volumen created
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl expose deployment webapp-volumen --ty pe=NodePort --port=80 --name=webapp-volumen-service service/webapp-volumen-service exposed
```

Evidenciando el HTML en el navegado:

```
← → C ② localhost31936 ☆ \D | 🕵 :
```

Â; Hola desde un volumen en Kubernetes!

Limpieza:

```
>> kubectl delete -f config-volume.yaml
>> kubectl delete service webapp-service
>> kubectl delete service webapp-volumen-service
deployment.apps "webapp" deleted
service "webapp-service" deleted
configmap "webapp-config" deleted
secret "webapp-secret" deleted
configmap "html-config" deleted
deployment.apps "webapp-volumen" deleted
Error from server (NotFound): services "webapp-service" not found
service "webapp-volumen-service" deleted
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio>
```

Definiendo namespace, bases de datos y servicios:

```
>> kubectl delete -f config-volume.yaml
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f namespace.yaml
namespace/auth-demo created
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl config set-context --current --namesp
ace=auth-demo
Context "docker-desktop" modified.
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f db1.yaml
>> kubectl apply -f db2.yaml
>> kubectl apply -f pais-service.yaml
persistentvolumeclaim/db1-pvc created
service/db1 created
deployment.apps/db1 created
```

Verificando:

```
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get pods
NAME
                               READY
                                       STATUS
                                                           RESTARTS
                                                                      AGE
auth-service-7df446bdbb-gbzkt
                               0/1
                                       ContainerCreating
                                                                      69s
                                                           0
db1-dbd647-lm572
                                       Running
                               1/1
                                                           0
                                                                      70s
                                       Running
db2-pvc-5cc595955-jl672
                               1/1
                                                           0
                                                                      69s
pais-service-796bb57fcc-w5grg
                               0/1
                                       ContainerCreating
                                                           0
                                                                      69s
PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl get svc
NAME
               TYPE
                          CLUSTER-IP
                                           EXTERNAL-IP
                                                         PORT(S)
                                                                    AGE
auth-service
              ClusterIP
                          10.96.187.212
                                           <none>
                                                         8080/TCP
                                                                    75s
db1
              ClusterIP
                                                                    76s
                          10.98.7.76
                                           <none>
                                                         5432/TCP
db2-pvc
              ClusterIP
                          10.98.38.184
                                           <none>
                                                         5432/TCP
                                                                    75s
pais-service
              ClusterIP
                          10.107.149.204
                                                         8080/TCP
                                                                    75s
                                           <none>
```

```
Forwarding from [::1]:8081 -> 8081

PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl apply -f pais-service.yaml

>> kubectl apply -f auth-service.yaml

service/pais-service configured

deployment.apps/pais-service configured

service/auth-service configured

deployment.apps/auth-service configured

PS D:\Codelabs\Codelabs-Soft-Dev-III\Kubernetes intermedio> kubectl port-forward svc/pais-service 8082:80

80

>> kubectl port-forward svc/auth-service 8081:8080

Forwarding from 127.0.0.1:8082 -> 8080

Forwarding from [::1]:8082 -> 8080
```