Desafío 14
Minikube + ArgoCD + Helm

Profesores: Ezequiel Gonzalez Rodriguez, Facundo Miglio

Alumno: Pedro Jonas Alandia Rios

Institución: Educación IT

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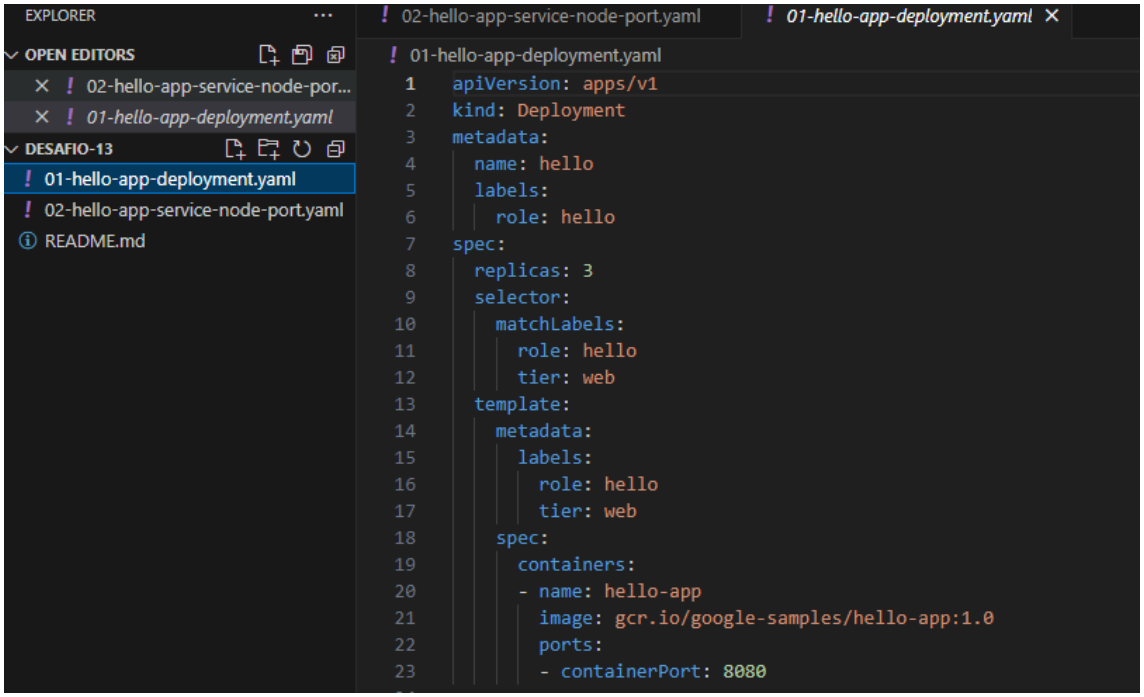
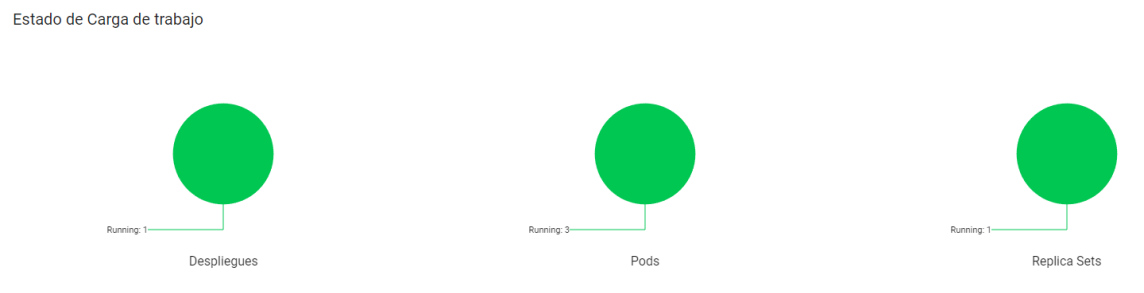
1. App en Minikube

Tenemos una app “Hello, world” desplegada localmente en minikube:

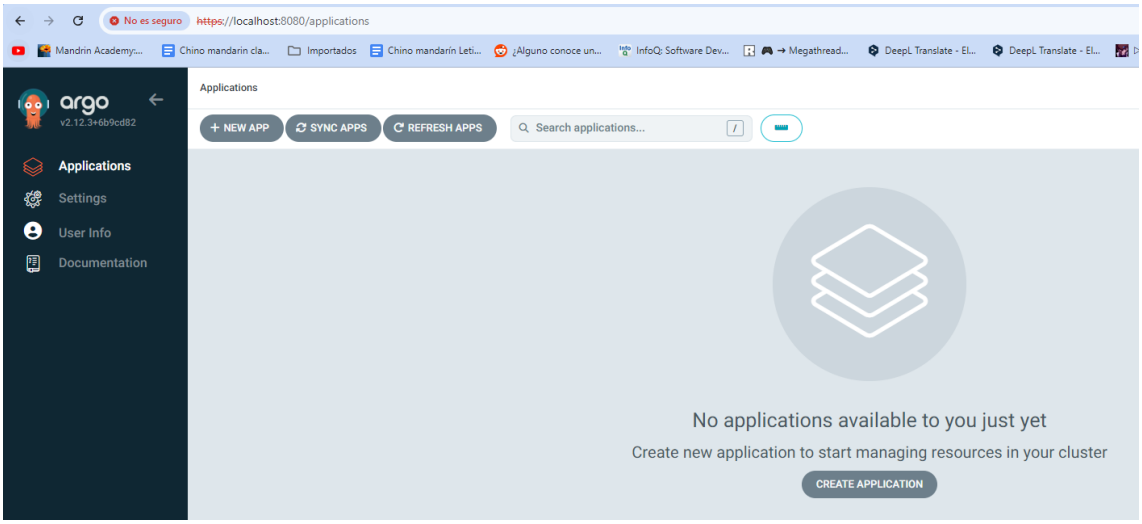



```
PS C:\Users\Jo\Desktop\Desafio-13> minikube ip
172.23.21.24
PS C:\Users\Jo\Desktop\Desafio-13> curl 172.23.21.24:30001


StatusCode        : 200
StatusDescription : OK
Content           : Hello, world!
                    Version: 1.0.0
                    Hostname: hello-76979fdfb8-skx8j

RawContent        : HTTP/1.1 200 OK
                    Content-Length: 62
                    Content-Type: text/plain; charset=utf-8
                    Date: Tue, 08 Oct 2024 22:48:15 GMT

                    Hello, world!
                    Version: 1.0.0
                    Hostname: hello-76979fdfb8-skx8j

Forms             : {}
Headers           : {[Content-Length, 62], [Content-Type, text/plain; charset=utf-8], [Date, Tue, 08 Oct 2024 22:48:15 GMT]}
Images            : {}
InputFields       : {}
Links             : {}
ParsedHtml        : mshtml.HTMLDocumentClass
RawContentLength  : 62
```



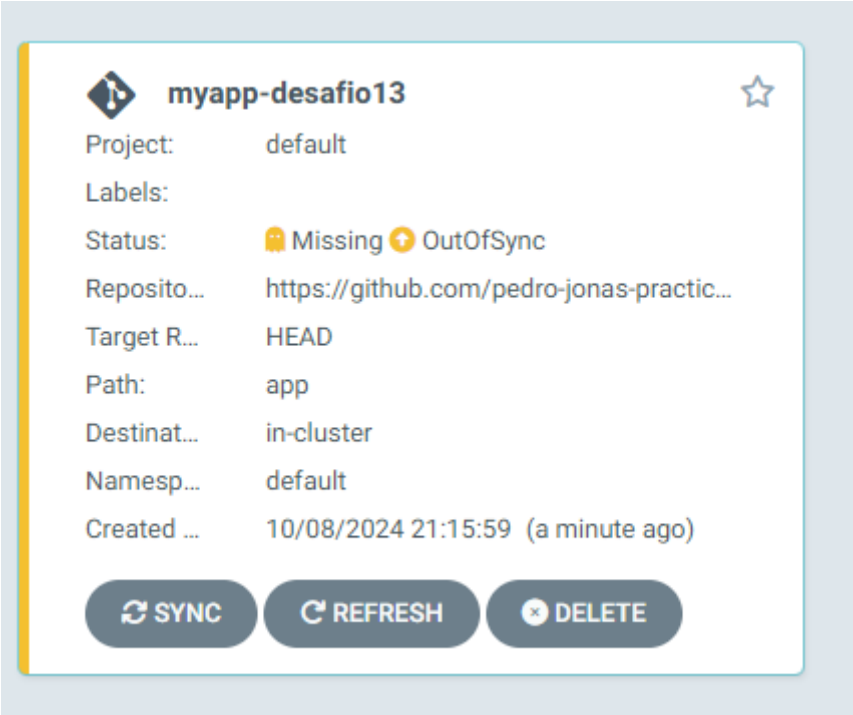
2. ArgoCD

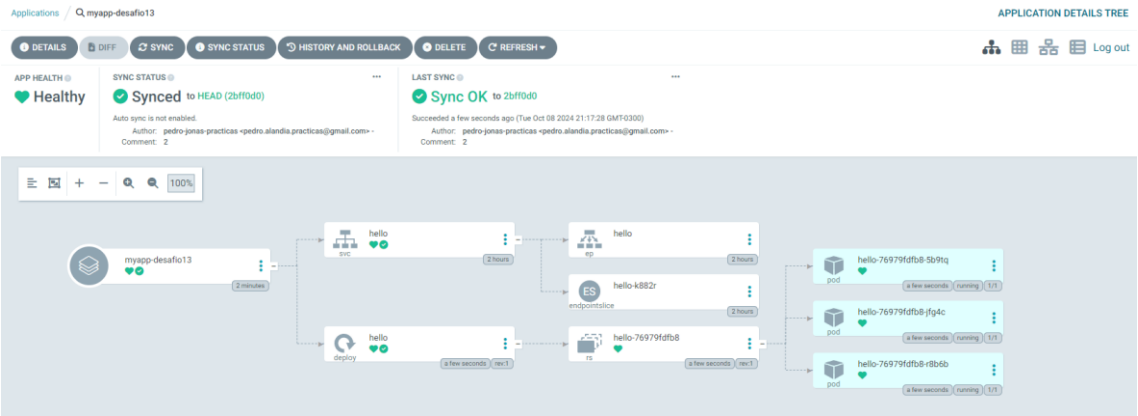
Seguimos la configuración de Argo para instalar e ingresar al front correctamente:



Ejecutamos nuestro manifiesto y nos dirigimos al dashboard de ArgoCD para verificar su deploy. Una vez confirmado lo sincronizamos con nuestro repositorio:

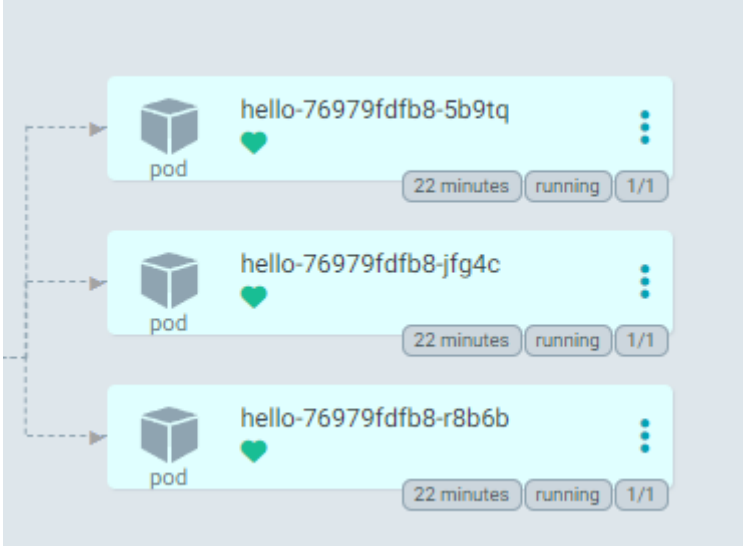
```
PS C:\Users\Jo\Desktop\Desafio-13> kubectl apply -f desafio13-argo.yaml
application.argoproj.io/myapp-desafio13 created
PS C:\Users\Jo\Desktop\Desafio-13>
```





Si hacemos un curl a una nuestra ip, podemos ver el pod que nos responde del deployment:

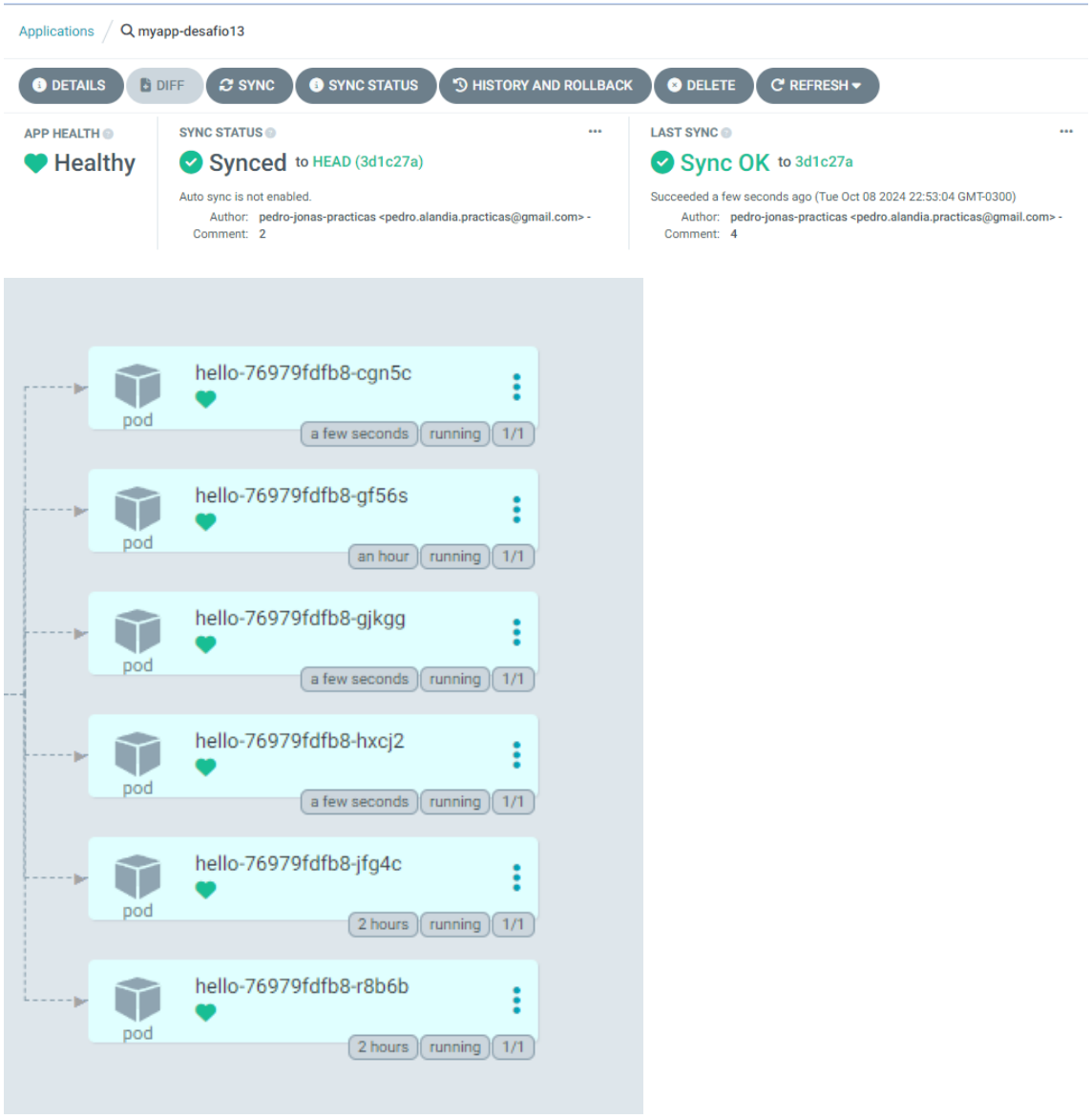
```
PS C:\Users\Jo\Desktop\Desafio-13> curl 172.23.21.24:30001


StatusCode        : 200
StatusDescription : OK
Content           : Hello, world!
                    Version: 1.0.0
                    Hostname: hello-76979fdfb8-5b9tq

RawContent        : HTTP/1.1 200 OK
                    Content-Length: 62
                    Content-Type: text/plain; charset=utf-8
                    Date: Wed, 09 Oct 2024 00:18:34 GMT

                    Hello, world!
                    Version: 1.0.0
                    Hostname: hello-76979fdfb8-5b9tq

Forms             : {}
Headers           : {[Content-Length, 62], [Content-Type, text/plain; charset=utf-8], [Date, Wed, 09 Oct 2024 00:18:34 GMT]}
Images            : {}
InputFields       : {}
Links             : {}
ParsedHtml        : mshtml.HTMLDocumentClass
RawContentLength  : 62
```



Si modificamos el manifiesto de nuestra app, por ejemplo, extendemos la cantidad de réplicas, luego de la sincronización los pods aumentarán en nuestro dashboard:

Code Blame 23 lines (23 loc) · 396 Bytes

```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: hello
  labels:
    role: hello
spec:
  replicas: 6
  selector:
```




```
PS C:\Users\Jo\Desktop\Desafio-13> helm install mongo14 oci://registry-1.docker.io/bitnamicharts/mongodb
Pulled: registry-1.docker.io/bitnamicharts/mongodb:16.0.1
Digest: sha256:ea72d33cc185b4c560920ba0d9c737e8d24e8010debcfce65f050a015e6f13fd
NAME: mongo14
LAST DEPLOYED: Wed Oct  9 16:34:36 2024
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
CHART NAME: mongodb
CHART VERSION: 16.0.1
APP VERSION: 8.0.0

** Please be patient while the chart is being deployed **

MongoDB&reg; can be accessed on the following DNS name(s) and ports from within your cluster:

    mongo14-mongodb.default.svc.cluster.local

To get the root password run:

    export MONGODB_ROOT_PASSWORD=$(kubectl get secret --namespace default mongo14-mongodb -o jsonpath="{.data.mongodb-root-password}" | base64 -d)

To connect to your database, create a MongoDB&reg; client container:

    kubectl run --namespace default mongo14-mongodb-client --rm --tty -i --restart='Never' --env="MONGODB_ROOT_PASSWORD=$MONGODB_ROOT_PASSWORD" --i

Then, run the following command:
    mongosh admin --host "mongo14-mongodb" --authenticationDatabase admin -u $MONGODB_ROOT_USER -p $MONGODB_ROOT_PASSWORD
```

```
NAME                                     READY   STATUS    RESTARTS   AGE
pod/hello-76979fdfb8-cgn5c               1/1     Running   0          17h
pod/hello-76979fdfb8-gf56s               1/1     Running   0          18h
pod/hello-76979fdfb8-gjkgg               1/1     Running   0          17h
pod/hello-76979fdfb8-hxcj2               1/1     Running   0          17h
pod/hello-76979fdfb8-jfg4c               1/1     Running   0          19h
pod/hello-76979fdfb8-r8b6b               1/1     Running   0          19h
pod/mongo14-mongodb-68fdccdcd-9stkb      1/1     Running   0          2m17s
pod/my-release-mongodb-698865b895-2ljmg  1/1     Running   0          9m9s

NAME                          TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)          AGE
service/hello                 NodePort    10.101.114.107   <none>        8080:30001/TCP   20h
service/kubernetes            ClusterIP   10.96.0.1        <none>        443/TCP          21d
service/mongo14-mongodb       ClusterIP   10.100.215.248   <none>        27017/TCP        2m17s
service/my-release-mongodb    ClusterIP   10.110.1.235     <none>        27017/TCP        9m9s
service/web                   ClusterIP   10.101.56.56     <none>        8080/TCP         21d

NAME                                 READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/hello                6/6     6            6           19h
deployment.apps/mongo14-mongodb      1/1     1            1           2m17s
deployment.apps/my-release-mongodb   1/1     1            1           9m9s

NAME                                           DESIRED   CURRENT   READY   AGE
replicaset.apps/hello-76979fdfb8               6         6         6       19h
replicaset.apps/mongo14-mongodb-68fdccdcd      1         1         1       2m17s
replicaset.apps/my-release-mongodb-698865b895  1         1         1       9m9s
PS C:\Users\Jo\Desktop\Desafio-13> helm create mongodb14
Creating mongodb14
```

Despliegues

Nombre	Imágenes	Etiquetas	Pods
mongo14-mongodb	docker.io/bitnami/mongodb:8.0.0-debian-12-r2	app.kubernetes.io/component: mongodb app.kubernetes.io/instance: mongo14 app.kubernetes.io/managed-by: Helm Ver más	1 / 1
my-release-mongodb	docker.io/bitnami/mongodb:8.0.0-debian-12-r2	app.kubernetes.io/component: mongodb app.kubernetes.io/instance: my-release app.kubernetes.io/managed-by: Helm Ver más	1 / 1
hello	gcr.io/google-samples/hello-app:1.0	app.kubernetes.io/instance: myapp-desafio13 role: hello	6 / 6