

Desafío 14

Minikube + ArgoCD + Helm

Profesores: Ezequiel Gonzalez Rodriguez, Facundo Miglio

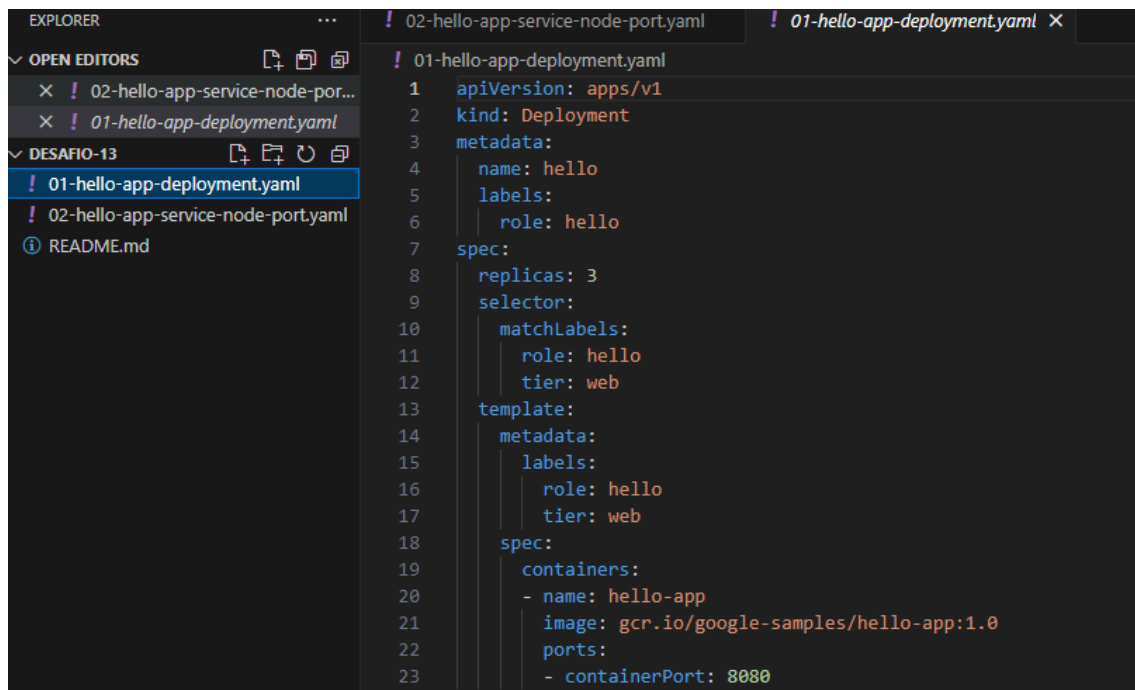
Alumno: Pedro Jonas Alandia Rios

Institución: Educación IT

Fecha de entrega: 08/10/2024

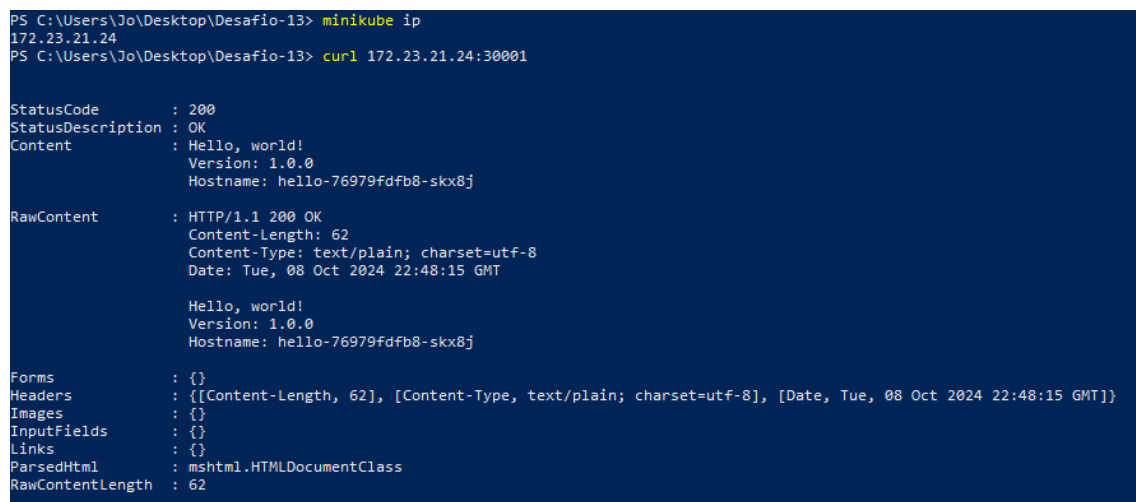
1. App en Minikube

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



The screenshot shows the VS Code interface with two YAML files open. The left sidebar shows the Explorer view with a folder named 'DESAFIO-13' containing three files: '01-hello-app-deployment.yaml', '02-hello-app-service-node-port.yaml', and 'README.md'. The main editor shows the content of '01-hello-app-deployment.yaml'.

```
1 apiVersion: apps/v1
2 kind: Deployment
3 metadata:
4   name: hello
5   labels:
6     role: hello
7 spec:
8   replicas: 3
9   selector:
10    matchLabels:
11      role: hello
12      tier: web
13   template:
14     metadata:
15       labels:
16         role: hello
17         tier: web
18     spec:
19       containers:
20       - name: hello-app
21         image: gcr.io/google-samples/hello-app:1.0
22         ports:
23         - containerPort: 8080
```



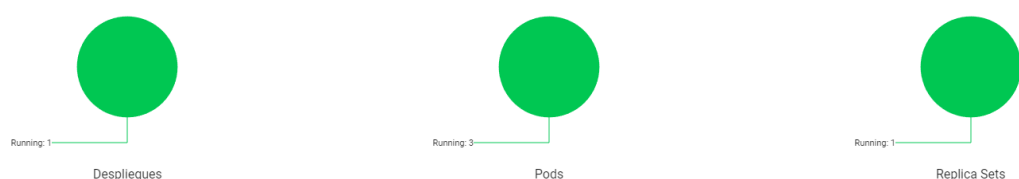
The screenshot shows a terminal window with the following commands and output:

```
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-76979fdb8-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

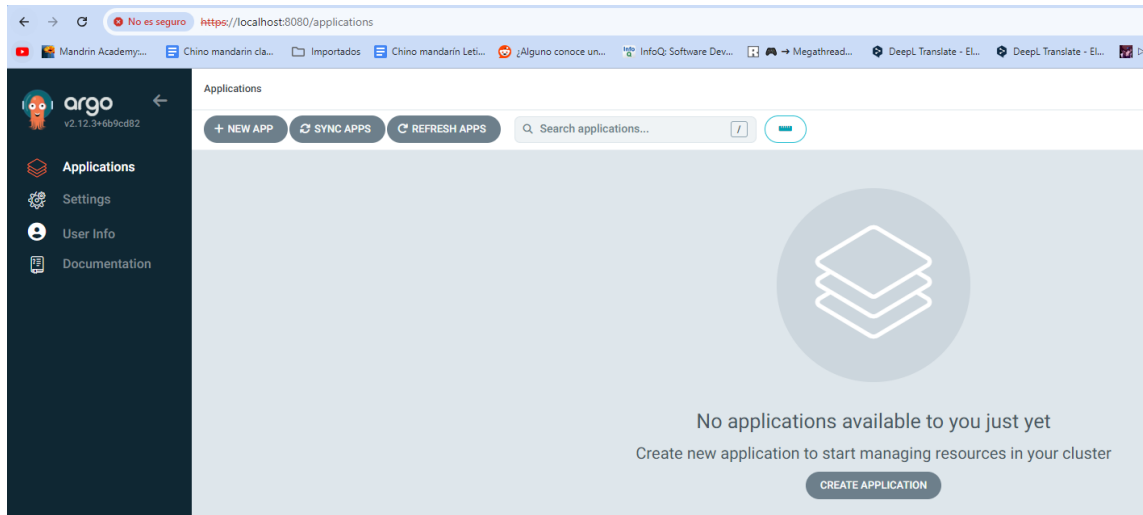
                  Hello, world!
                  Version: 1.0.0
                  Hostname: hello-76979fdb8-skx8j
Forms           : {}
Headers         : {[Content-Length, 62], [Content-Type, text/plain; charset=utf-8], [Date, Tue, 08 Oct 2024 22:48:15 GMT]}
Images          : {}
InputFields     : {}
Links           : {}
ParsedHtml      : mshtml.HTMLDocumentClass
RawContentLength : 62
```

Estado de Carga de trabajo




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>
```

**myapp-desafio13**



☆

Project:

default

Labels:

Status:

 Missing  OutOfSync

Reposito...

https://github.com/pedro-jonas-practic...

Target R...

HEAD

Path:

app

Destinat...


in-cluster


Namesp...


default

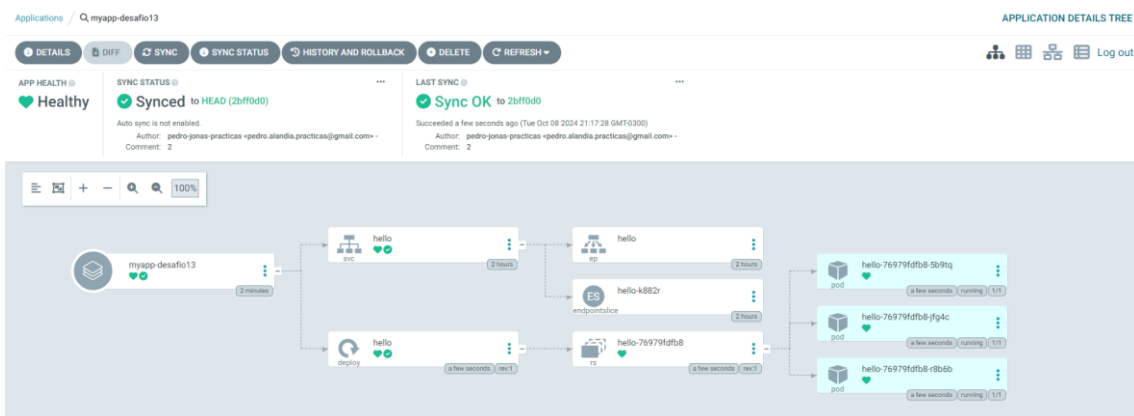
Created ...

10/08/2024 21:15:59 (a minute ago)

 SYNC

 REFRESH

 DELETE



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

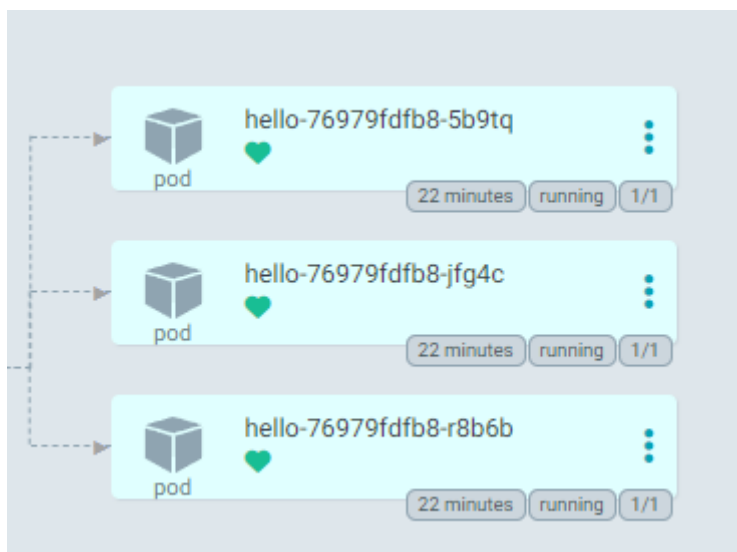
```

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-76979fdb8-5b9tq
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-76979fdb8-5b9tq
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

1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: hello
5    labels:
6      role: hello
7  spec:
8    replicas: 6
9    selector:

```

DETAILS

DIFF

SYNC

SYNC STATUS

HISTORY AND ROLLBACK


DELETE

REFRESH

APP HEALTH

 **Healthy**

SYNC STATUS

 **Synced** to HEAD (3d1c27a)

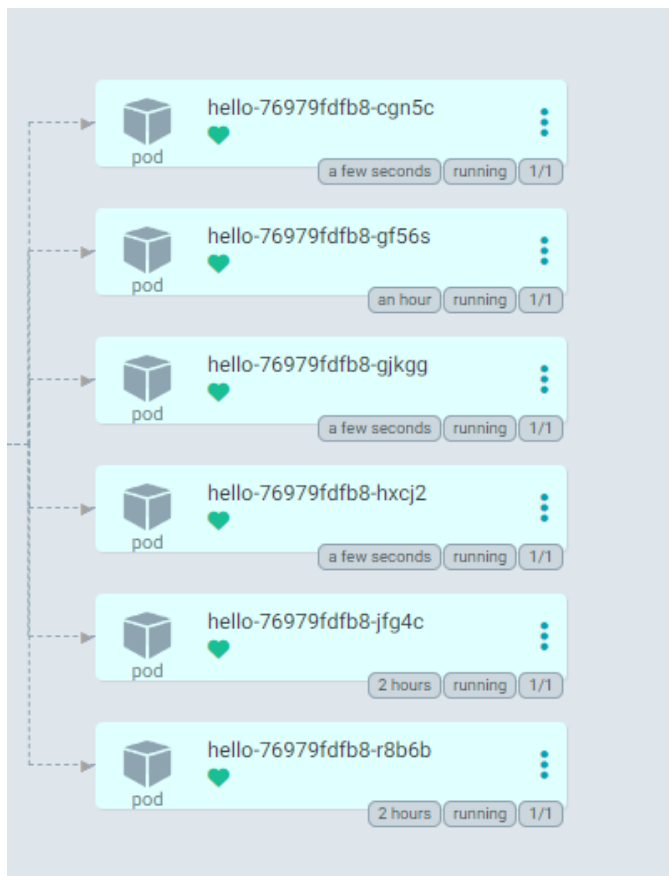
Auto sync is not enabled.

Author: pedro-jonas-praticas <pedro.alandia.praticas@gmail.com> -
Comment: 2

LAST SYNC

 **Sync OK** to 3d1c27a

Succeeded a few seconds ago (Tue Oct 08 2024 22:53:04 GMT-0300)

Author: pedro-jonas-praticas <pedro.alandia.praticas@gmail.com> -
Comment: 4

```
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" --image=bitnami/mongodb:8.0.0

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-76979fdb8-cgn5c          1/1     Running   0           17h
pod/hello-76979fdb8-gf56s          1/1     Running   0           18h
pod/hello-76979fdb8-gjkgg          1/1     Running   0           17h
pod/hello-76979fdb8-hxcj2          1/1     Running   0           17h
pod/hello-76979fdb8-jfg4c          1/1     Running   0           19h
pod/hello-76979fdb8-r8b6b          1/1     Running   0           19h
pod/mongo14-mongodb-68fdccdc-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-76979fdb8      6           6          6        19h
replicaset.apps/mongo14-mongodb-68fdccdc 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