DESAFÍO 13

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Objetivo: El objetivo de este desafío es guiar la instalación y configuración de ArgoCD en un entorno de Minikube. ArgoCD es una herramienta de GitOps utilizada para gestionar despliegues en Kubernetes de manera declarativa.

GUÍA DE PASOS

1- Como requisitos previos, ya tengo instalado Minikube y kubectl para interactuar con el clúster de Kubernetes en Minikube.

2- Inicio Minikube

```
Mana Informatica@DESKTOP-K0UA0G8 MINGW64 /f/Documents/WorkspaceVSC
$ minikube start
😄  minikube v1.34.0 on Microsoft Windows 10 Pro 10.0.19045.4894 Build 19045.4894
✨  Using the docker driver based on existing profile
👍  Starting "minikube" primary control-plane node in "minikube" cluster
🚜  Pulling base image v0.0.45 ...
🔄  Restarting existing docker container for "minikube" ...
❗  Failing to connect to https://registry.k8s.io/ from both inside the minikube container and host machine
💡  To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
🐳  Preparing Kubernetes v1.31.0 on Docker 27.2.0 ...
🔎  Verifying Kubernetes components...
    ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🌟  Enabled addons: storage-provisioner, default-storageclass

❗  C:\Program Files\Docker\Docker\resources\bin\kubectl.exe is version 1.29.2, which may have incompatibilities with Kubernetes 1.31.
0
.
    ▪ Want kubectl v1.31.0? Try 'minikube kubectl -- get pods -A'
🏄  Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```

3- Instalo el namespace de ArgoCD

```
Mana Informatica@DESKTOP-K0UA0G8 MINGW64 /f/Documents/WorkspaceVSC
$ kubectl create namespace argocd
namespace/argocd created
```

4- Despliego los recursos de ArgoCD en Minikube

```
Mana Informatica@DESKTOP-K0UA0G8 MINGW64 /f/Documents/WorkspaceVSC
$ kubectl apply -n argocd -f https://raw.githubusercontent.com/argoproj/argo-cd/stable/manifests/install.yaml
customresourcedefinition.apiextensions.k8s.io/applications.argoproj.io created
customresourcedefinition.apiextensions.k8s.io/applicationsets.argoproj.io created
customresourcedefinition.apiextensions.k8s.io/appprojects.argoproj.io created
serviceaccount/argocd-application-controller created
serviceaccount/argocd-applicationset-controller created
serviceaccount/argocd-dex-server created
serviceaccount/argocd-notifications-controller created
serviceaccount/argocd-redis created
serviceaccount/argocd-repo-server created
serviceaccount/argocd-server created
role.rbac.authorization.k8s.io/argocd-application-controller created
role.rbac.authorization.k8s.io/argocd-applicationset-controller created
role.rbac.authorization.k8s.io/argocd-dex-server created
role.rbac.authorization.k8s.io/argocd-notifications-controller created
role.rbac.authorization.k8s.io/argocd-redis created
role.rbac.authorization.k8s.io/argocd-server created
clusterrole.rbac.authorization.k8s.io/argocd-application-controller created
clusterrole.rbac.authorization.k8s.io/argocd-applicationset-controller created
clusterrole.rbac.authorization.k8s.io/argocd-server created
rolebinding.rbac.authorization.k8s.io/argocd-application-controller created
rolebinding.rbac.authorization.k8s.io/argocd-applicationset-controller created
rolebinding.rbac.authorization.k8s.io/argocd-dex-server created
rolebinding.rbac.authorization.k8s.io/argocd-notifications-controller created
rolebinding.rbac.authorization.k8s.io/argocd-redis created
rolebinding.rbac.authorization.k8s.io/argocd-server created
clusterrolebinding.rbac.authorization.k8s.io/argocd-application-controller created
clusterrolebinding.rbac.authorization.k8s.io/argocd-applicationset-controller created
clusterrolebinding.rbac.authorization.k8s.io/argocd-server created
configmap/argocd-cm created
configmap/argocd-cmd-params-cm created
```

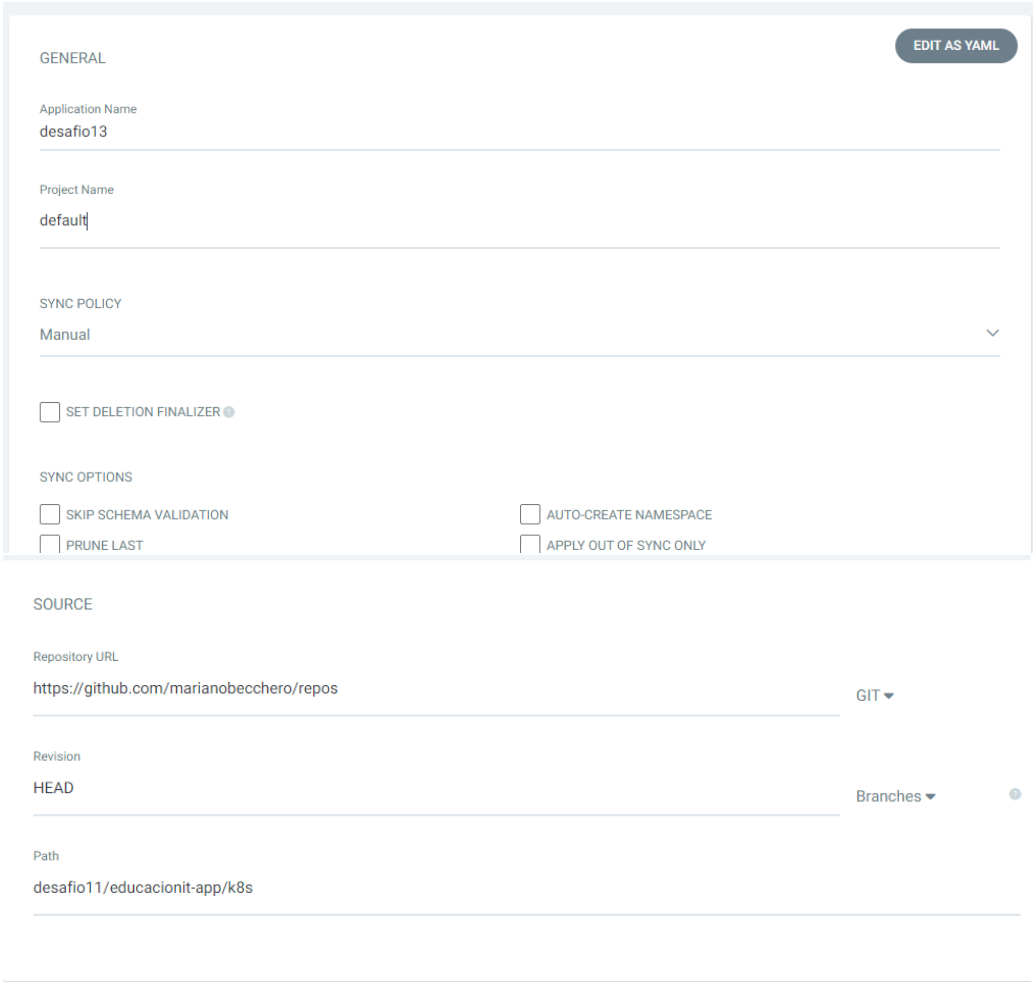
5- Expongo el servicio ArgoCD Server para acceder al dashboard

```
Mana Informatica@DESKTOP-K0UA0G8 MINGW64 /f/Documents/WorkspaceVSC
$ kubectl port-forward svc/argocd-server -n argocd 8080:443
Forwarding from 127.0.0.1:8080 -> 8080
Forwarding from [::1]:8080 -> 8080
Handling connection for 8080
Handling connection for 8080
Handling connection for 8080
```

6- Obtengo la contraseña inicial del usuario admin

```
Mana Informatica@DESKTOP-K0UA0G8 MINGW64 /f/Documents/WorkspaceVSC
$ kubectl get secret argocd-initial-admin-secret -n argocd -o jsonpath="{.data.password}" |
> base64 --decode
JpIYyJ3JHuQA1yYa
```

7- Inicio sesión en el dashboard y despliego la aplicación desarrollada en el desafío 11, mostrando su ejecución exitosa



DESTINATION

Cluster URL

https://kubernetes.default.svc

URL

Namespace

default