

# CI/CD con Jenkins y ArgoCD

# GitOps

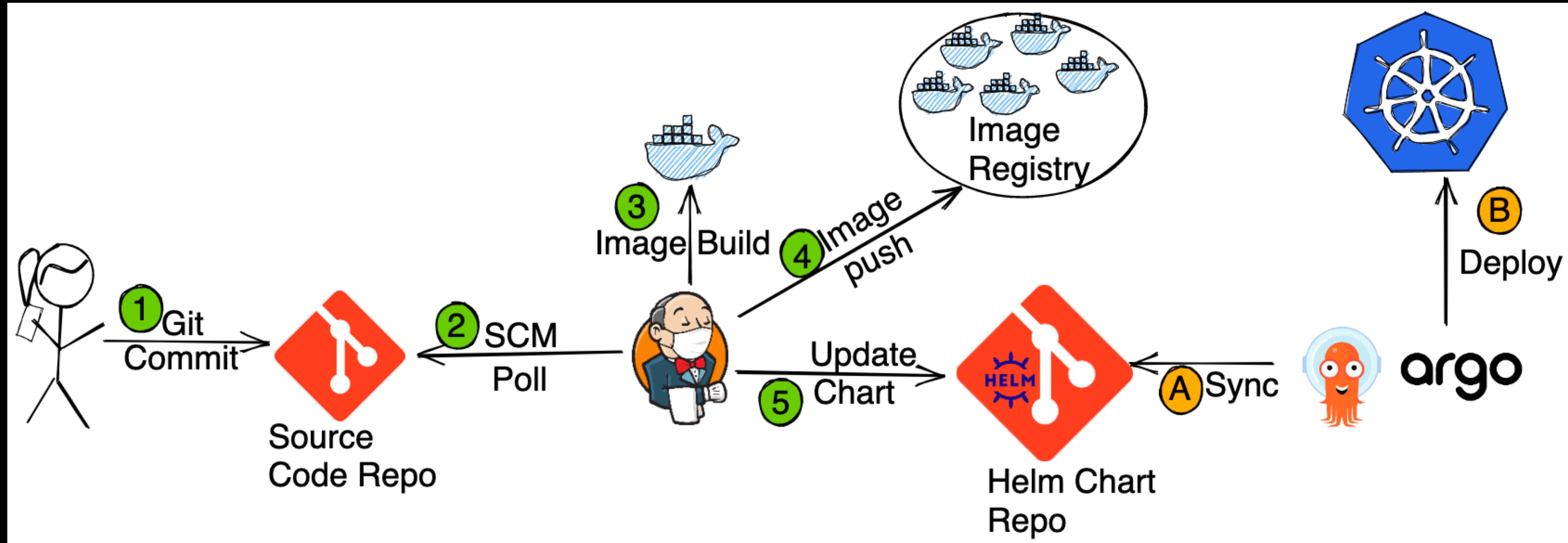
- Su nombre revela que nos gustaría administrar nuestras operaciones como implementación de aplicaciones, administración, escalamiento, etc. vía **Git**.
- Podemos commitear a Git y nuestra aplicación/infraestructura es instalada o actualizada.
- Hay muchas herramientas que soportan esto cómo: ArgoCD, Flux, entre otras. Veremos sólo **ArgoCD**.
- Las herramientas GitOps nos dan las siguientes características:
  - Declarativo
  - Observabilidad
  - Auditoría y compliance
  - Rollback

# ArgoCD

<https://argoproj.github.io/cd/>

- Es uno de los proyectos bajo ArgoProj, el cual tiene otros proyecto como Argo Workflows, Argo Rollouts y Argo Events.

# GitOps Workflow



# Desplegando una aplicación con ArgoCD



# Minikube

<https://minikube.sigs.k8s.io/docs/start/>

- curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-darwin-amd64
- sudo install minikube-darwin-amd64 /usr/local/bin/minikube

# minikube start --memory 8GB --cpus=4

```
Last login: Sun Feb 26 20:10:23 on ttys000
> minikube start --memory 8GB --cpus=4
😄 minikube v1.29.0 on Darwin 13.2.1
:+ Automatically selected the docker driver. Other choices: hyperkit, qemu2, virtualbox, ssh
📌 Using Docker Desktop driver with root privileges
👍 Starting control plane node minikube in cluster minikube
📦 Pulling base image ...
💻 Downloading Kubernetes v1.26.1 preload ...
> preloaded-images-k8s-v18-v1...: 397.05 MiB / 397.05 MiB 100.00% 6.24 Mi
🔥 Creating docker container (CPUs=4, Memory=8192MB) ...
🐳 Preparing Kubernetes v1.26.1 on Docker 20.10.23 ...
    └ Generating certificates and keys ...
    └ Booting up control plane ...
    └ Configuring RBAC rules ...
🔗 Configuring bridge CNI (Container Networking Interface) ...
    └ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🔍 Verifying Kubernetes components...
⭐ Enabled addons: storage-provisioner, default-storageclass

❗ /Users/josediaz/bin/kubectl is version 1.23.7-eks-4721010, which may have incompatibilities with Kubernetes 1.26.1.
    └ Want kubectl v1.26.1? Try 'minikube kubectl -- get pods -A'
⚡ Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
~ > █ 1m 43s 20:16:28
```

# Instalar ArgoCD

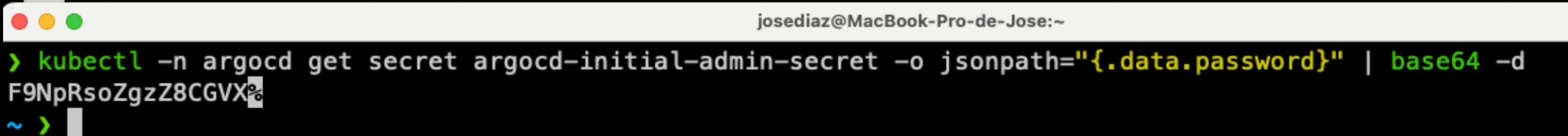
- kubectl create ns argocd
- kubectl apply -n argocd -f <https://raw.githubusercontent.com/argoproj/argo-cd/stable/manifests/install.yaml>
- kubectl get pods -n argocd

# kubectl get pods -n argocd

```
josediaz@MacBook-Pro-de-Jose:~ 20:27:15
configmap/argocd-ssh-known-hosts-cm created
configmap/argocd-tls-certs-cm created
secret/argocd-notifications-secret created
secret/argocd-secret created
service/argocd-applicationset-controller created
service/argocd-dex-server created
service/argocd-metrics created
service/argocd-notifications-controller-metrics created
service/argocd-redis created
service/argocd-repo-server created
service/argocd-server created
service/argocd-server-metrics created
deployment.apps/argocd-applicationset-controller created
deployment.apps/argocd-dex-server created
deployment.apps/argocd-notifications-controller created
deployment.apps/argocd-redis created
deployment.apps/argocd-repo-server created
deployment.apps/argocd-server created
statefulset.apps/argocd-application-controller created
networkpolicy.networking.k8s.io/argocd-application-controller-network-policy created
networkpolicy.networking.k8s.io/argocd-applicationset-controller-network-policy created
networkpolicy.networking.k8s.io/argocd-dex-server-network-policy created
networkpolicy.networking.k8s.io/argocd-notifications-controller-network-policy created
networkpolicy.networking.k8s.io/argocd-redis-network-policy created
networkpolicy.networking.k8s.io/argocd-repo-server-network-policy created
networkpolicy.networking.k8s.io/argocd-server-network-policy created
> kubectl get pods -n argocd
NAME                               READY   STATUS    RESTARTS   AGE
argocd-application-controller-0     1/1     Running   0          89s
argocd-applicationset-controller-9c64fc489-767w9 1/1     Running   0          89s
argocd-dex-server-5845b5c459-lprl4   1/1     Running   0          89s
argocd-notifications-controller-5c967844dc-kwgkk 1/1     Running   0          89s
argocd-redis-7b59bfff-5jbd8       1/1     Running   0          89s
argocd-repo-server-79566f874-p8wtd 1/1     Running   0          89s
argocd-server-5d5d5d9bbb-gfmvk    1/1     Running   0          89s
~ > 20:27:15
```

# Instalar ArgoCD

- Una vez que los pods están Running, podemos acceder a la UI con el usuario **admin**, pero, hay que ejecutar este comando para obtener el password:
- `kubectl -n argocd get secret argocd-initial-admin-secret -o jsonpath=".data.password" | base64 -d`



```
josediaz@MacBook-Pro-de-Jose:~
> kubectl -n argocd get secret argocd-initial-admin-secret -o jsonpath=".data.password" | base64 -d
F9NpRsoZgzz8CGVX%
```

# Instalar ArgoCD

- Para acceder a la UI de ArgoCD ejecuta este comando:
- `kubectl port-forward svc/argocd-server -n argocd 8080:443`

```
> kubectl port-forward svc/argocd-server -n argocd 8080:443
Forwarding from 127.0.0.1:8080 -> 8080
Forwarding from [::1]:8080 -> 8080
```

Applications Tiles - Argo CD

Not Secure | https://localhost:8080/login?return\_url=https%3A%2F%2Flocalhost%3A8080%2Fapplications

argohub

Username  
admin

Password  
.....

SIGN IN

Let's get stuff deployed!

The image shows a web browser window for the Argo CD application. The title bar says "Applications Tiles - Argo CD". The address bar shows a warning: "Not Secure | https://localhost:8080/login?return\_url=https%3A%2F%2Flocalhost%3A8080%2Fapplications". The main content area has a dark blue background with a white star pattern. In the center is a large, friendly-looking orange cartoon octopus with big white eyes and a wide smile, standing on top of a large grey gear. To the right of the octopus is a login form with the "argohub" logo at the top. The form includes fields for "Username" (set to "admin") and "Password" (represented by a series of dots). A "SIGN IN" button is located below the password field. At the bottom of the page, there is a footer with the "argohub" logo.

Applications Tiles - Argo CD

Not Secure | https://localhost:8080/applications

Argo CD v2.6.0+acc554f

APPLICATIONS TILES

Log out

Applications

+ NEW APP   SYNC APPS   REFRESH APPS   Search applications...   /  

No applications available to you just yet

Create new application to start managing resources in your cluster

CREATE APPLICATION

Applications

Settings

User Info

Documentation

←



# Crear namespace app

- kubectl create ns app

```
Last login: Sun Feb 26 20:13:21 on ttys000
> kubectl create ns app
namespace/app created
~ > █
```

# Pasos para crear una aplicación

- Forkear proyecto: <https://github.com/joedayz/rsvpapp-helm-cicd>
- Login a ArgoCD
- Clic en new app y actualizar con lo siguiente
- Dar como nombre de aplicación: rsvapp
- Seleccionar el proyecto. Por ahora escoger el nombre default, el cual es automáticamente presentado después de la instalación de ArgoCD
- Establecer SyncPolicy Automatic.
- Habilitar la opción Prune Resources
- Habilitar SELF HEAL

[CREATE](#)[CANCEL](#)

X

## GENERAL

[EDIT AS YAML](#)

Application Name

rsvpapp

Project Name

default

## SYNC POLICY

Automatic

▼

- PRUNE RESOURCES ⓘ
- SELF HEAL ⓘ

 SET DELETION FINALIZER ⓘ

## SYNC OPTIONS

- SKIP SCHEMA VALIDATION
- PRUNE LAST
- RESPECT IGNORE DIFFERENCES

- AUTO-CREATE NAMESPACE
- APPLY OUT OF SYNC ONLY
- SERVER-SIDE APPLY

PRUNE PROPAGATION POLICY: foreground

▼

- REPLACE ⚠
- RETRY

# Pasos para crear una aplicación

- Definir el repositorio del URL con la demo que se ha forkeado <https://github.com/joedayz/rsvapp-helm-cicd.git>
- Establecer revision **HEAD**
- El path es la ubicación del archivo de configuración. Escoger **.**
- Destination: Es el cluster donde se va a desplegar la aplicación.
- Selecciona el Cluster: <https://kubernetes.default.svc>.
- Selecciona el namespace: **app**
- Clic en **create**.

## SOURCE

Repository URL

<https://github.com/joedayz/rsvpapp-helm-cicd.git>

GIT ▾

Revision

HEAD

Branches ▾



Path

.

## DESTINATION

Cluster URL

<https://kubernetes.default.svc>

URL ▾

Namespace

app



rsvpapp



Project: default

Labels:

Status: ❤️ Healthy ✓ Synced

Repository: <https://github.com/joedayz/rsvpapp-helm-cicd.git>

Target Revi... HEAD

Path: -

Destination: in-cluster

Namespace: app

Created At: 02/26/2023 21:31:28 (a minute ago)

SYNC

REFRESH

DELETE

kubectl get pods,svc -n app

---

› kubectl get pods,svc -n app

NAME	READY	STATUS	RESTARTS	AGE
pod/rsvpapp-7456cb95f6-6lctz	1/1	Running	0	108s
pod/rsvpapp-7456cb95f6-cttr2	1/1	Running	0	108s
pod/rsvpapp-7456cb95f6-zd8cp	1/1	Running	0	108s
pod/rsvpapp-mongodb-546778fdb8-wnt7c	1/1	Running	0	108s

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/rsvpapp	ClusterIP	10.108.65.29	<none>	80/TCP	108s
service/rsvpapp-mongodb	ClusterIP	10.108.47.98	<none>	27017/TCP	108s

~ › █

[APP DETAILS](#) [APP DIFF](#) [SYNC](#) [SYNC STATUS](#) [HISTORY AND ROLLBACK](#) [DELETE](#) [REFRESH](#)    [Log out](#)APP HEALTH **Healthy**CURRENT SYNC STATUS **Synced**

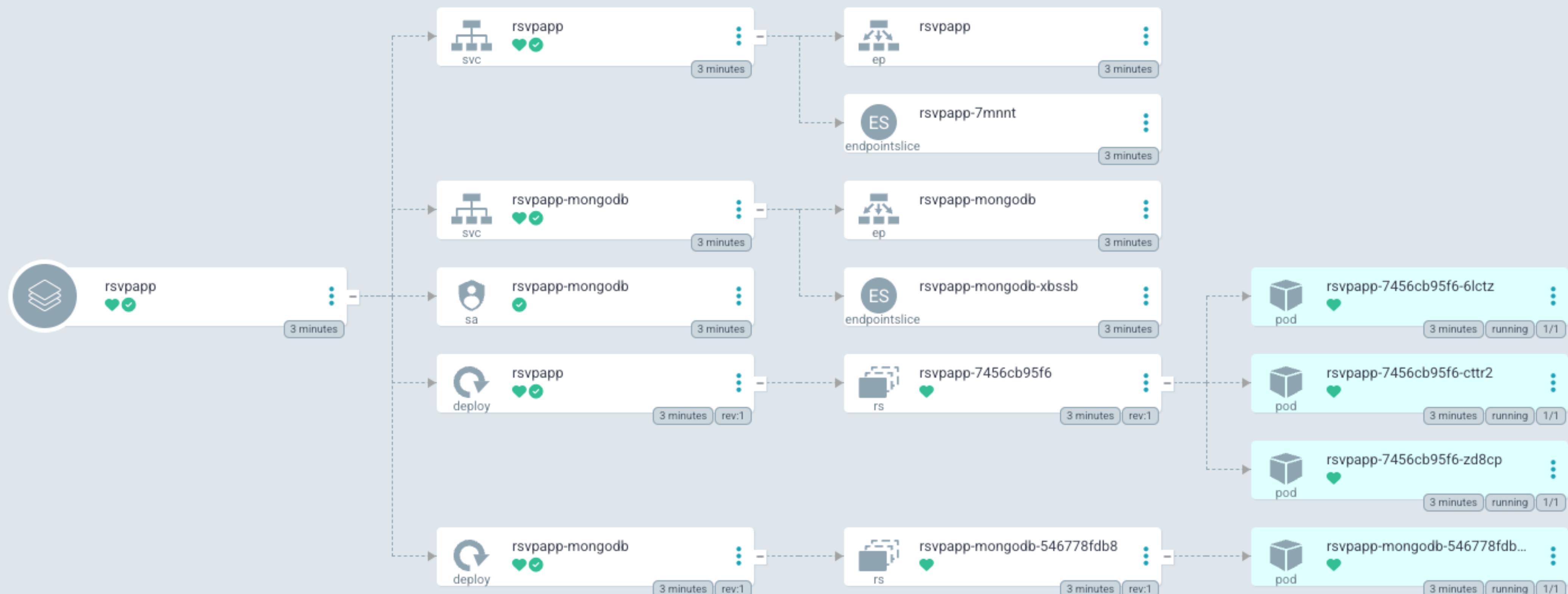
To HEAD (9c23383)

Author: Neependra Khare <neependra.khare@gmail.com> -  
Comment: Update Chart.yaml  
Auto sync is enabled.LAST SYNC RESULT **Sync OK**

To 9c23383

Succeeded 3 minutes ago (Sun Feb 26 2023 21:31:30 GMT-0500)  
Author: Neependra Khare <neependra.khare@gmail.com> -  
Comment: Update Chart.yaml

100%



# Instalar add-on ingress

- **minikube addons enable ingress**

```
> minikube addons enable ingress
💡 ingress is an addon maintained by Kubernetes. For any concerns contact minikube on GitHub.
You can view the list of minikube maintainers at: https://github.com/kubernetes/minikube/blob/master/OWNERS
💡 After the addon is enabled, please run "minikube tunnel" and your ingress resources would be available at "127.0.0.1"
  ■ Using image registry.k8s.io/ingress-nginx/controller:v1.5.1
  ■ Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v20220916-gd32f8c343
  ■ Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v20220916-gd32f8c343
🔍 Verifying ingress addon...
🌟 The 'ingress' addon is enabled
```

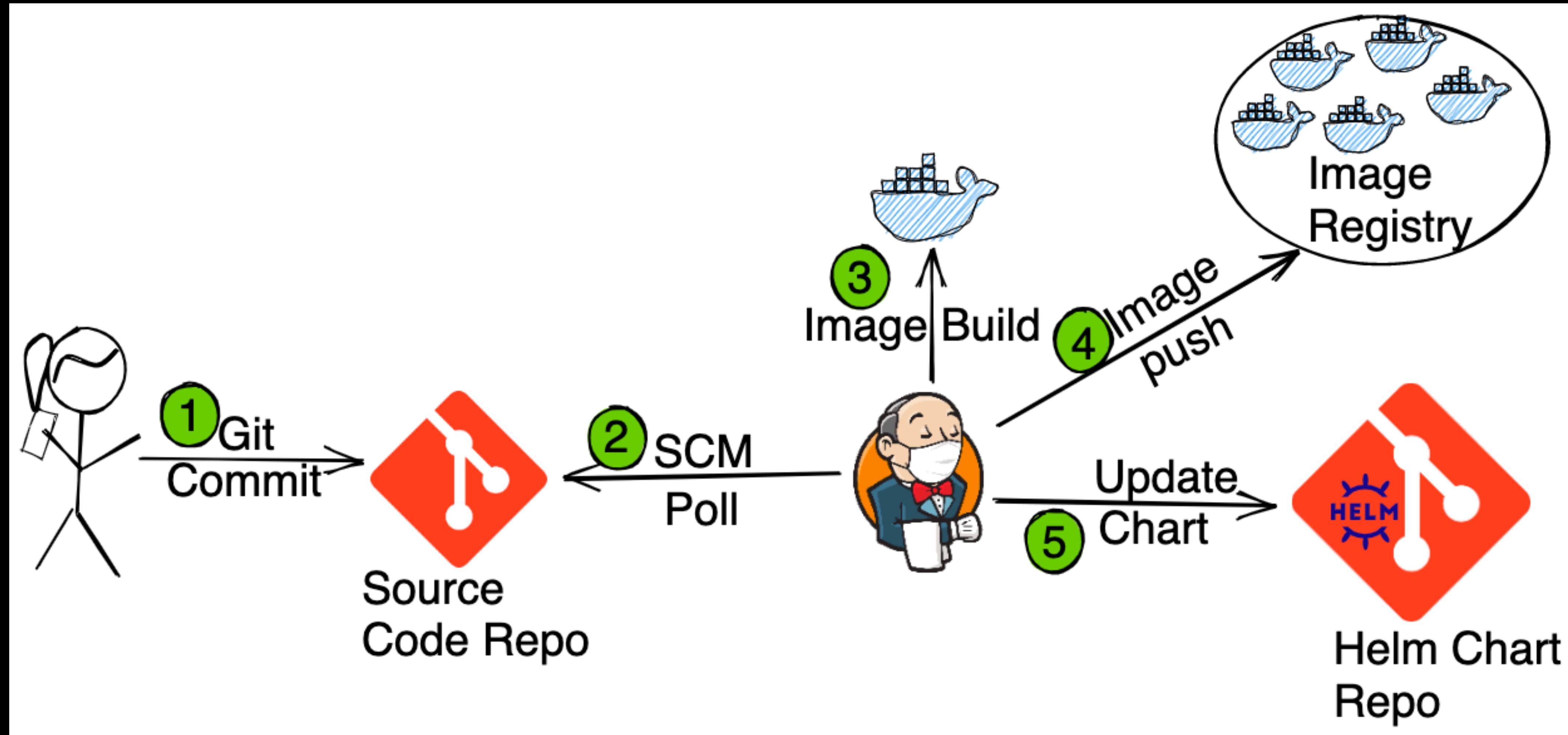
```
> kubectl get pods -n ingress-nginx
NAME                           READY   STATUS    RESTARTS   AGE
ingress-nginx-admission-create-lg5q8   0/1     Completed  0          73s
ingress-nginx-admission-patch-tjl8d    0/1     Completed  0          73s
ingress-nginx-controller-77669ff58-m4llv 1/1     Running   0          73s
```

# Crear el ingress para nuestro deployment

```
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: rsvp-ingress
spec:
  rules:
  - http:
    paths:
    - path: /
      pathType: Prefix
    backend:
      service:
        name: rsvpapp
        port:
          number: 80
```

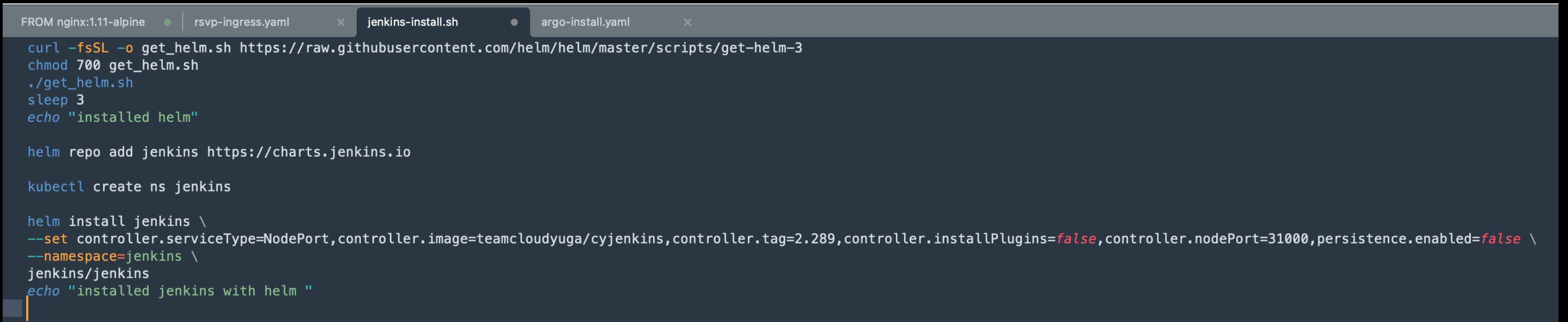
```
> vi rsvp-ingress.yaml
> kubectl apply -f rsvp-ingress.yaml -n app
ingress.networking.k8s.io/rsvp-ingress created
~/Downloads > █
```

# Configurar CI con Jenkins



# Instalar jenkins

## Jenkins-install.sh



The screenshot shows a terminal window with several tabs open. The active tab is titled "jenkins-install.sh" and contains the following command-line script:

```
FROM nginx:1.11-alpine
curl -fsSL -o get_helm.sh https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3
chmod 700 get_helm.sh
./get_helm.sh
sleep 3
echo "installed helm"

helm repo add jenkins https://charts.jenkins.io

kubectl create ns jenkins

helm install jenkins \
--set controller.serviceType=NodePort,controller.image=teamcloudyuga/cyjenkins,controller.tag=2.289,controller.installPlugins=false,controller.nodePort=31000,persistence.enabled=false \
--namespace=jenkins \
jenkins/jenkins
echo "installed jenkins with helm "
```

# Instalar jenkins

## Jenkins-install.sh

```
> chmod +x jenkins-install.sh
> sh jenkins-install.sh
Helm v3.11.1 is already latest
installed helm
"jenkins" already exists with the same configuration, skipping
namespace/jenkins created
NAME: jenkins
LAST DEPLOYED: Sun Feb 26 21:42:09 2023
NAMESPACE: jenkins
STATUS: deployed
REVISION: 1
NOTES:
1. Get your 'admin' user password by running:
   kubectl exec --namespace jenkins -it svc/jenkins -c jenkins -- /bin/cat /run/secrets/additional/cha
rt-admin-password && echo
2. Get the Jenkins URL to visit by running these commands in the same shell:
   export NODE_PORT=$(kubectl get --namespace jenkins -o jsonpath=".spec.ports[0].nodePort" services
jenkins)
   export NODE_IP=$(kubectl get nodes --namespace jenkins -o jsonpath=".items[0].status.addresses[0].
address")
   echo http://$NODE_IP:$NODE_PORT

3. Login with the password from step 1 and the username: admin
4. Configure security realm and authorization strategy
5. Use Jenkins Configuration as Code by specifying configScripts in your values.yaml file, see docume
ntation: http://$NODE_IP:$NODE_PORT/configuration-as-code and examples: https://github.com/jenkinsci/
configuration-as-code-plugin/tree/master/demos

For more information on running Jenkins on Kubernetes, visit:
https://cloud.google.com/solutions/jenkins-on-container-engine

For more information about Jenkins Configuration as Code, visit:
https://jenkins.io/projects/jcasc/

#####
##### WARNING: Persistence is disabled!!! You will lose your data when #####
#####           the Jenkins pod is terminated. #####
#####
installed jenkins with helm
~/Downloads > |
```

# Instalar jenkins

kubectl get pods -n jenkins

```
› kubectl get pods -n jenkins
NAME        READY   STATUS    RESTARTS   AGE
jenkins-0   2/2     Running   0          117s
~/Downloads › █
```

# Instalar jenkins

## Obtener el password del admin

- kubectl exec --namespace jenkins -it svc/jenkins -c jenkins -- /bin/cat /run/secrets/additional/chart-admin-password && echo

---

```
> kubectl exec --namespace jenkins -it svc/jenkins -c jenkins -- /bin/cat /run/secrets/additional/chart-admin-password && echo
```

```
OLMfcKjiug4I1esGbaJwQX  
~/Downloads > █
```

21:47:13

# Instalar jenkins

## Lanzar la UI de Jenkins

- minikube service jenkins -n jenkins

```
> minikube service jenkins -n jenkins
|-----|-----|-----|-----|
| NAMESPACE | NAME | TARGET PORT | URL |
|-----|-----|-----|-----|
| jenkins | jenkins | http/8080 | http://192.168.49.2:31000 |
|-----|-----|-----|-----|
🏃 Starting tunnel for service jenkins.
|-----|-----|-----|-----|
| NAMESPACE | NAME | TARGET PORT | URL |
|-----|-----|-----|-----|
| jenkins | jenkins | | http://127.0.0.1:61571 |
|-----|-----|-----|-----|
🎉 Opening service jenkins/jenkins in default browser...
❗ Because you are using a Docker driver on darwin, the terminal needs to be open to run it.
```

Sign in [Jenkins] X

127.0.0.1:61571/login?from=%2F ★



Welcome to Jenkins!

Username

Password

**Sign in**

Keep me signed in

Dashboard [Jenkins] X

127.0.0.1:61571

search ? 2 2 Jenkins Admin log out

# Jenkins

Dashboard

- New Item
- People
- Build History
- Manage Jenkins
- My Views
- New View

**Welcome to Jenkins!**

This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.

**Start building your software project**

Create a job →

**Build Queue** ^  
No builds in the queue.

**Build Executor Status** ^

REST API Jenkins 2.289.1

# Plugins recomendados

[Ant Plugin](#) 481.v7b\_09e538fcca

Adds Apache Ant support to Jenkins

[Report an issue with this plugin](#)



475.vf...



[Basic Branch Build Strategies Plugin](#) 71.vc1421f89888e

This plugin provides some basic branch build strategies for use with Branch API based projects.

[Report an issue with this plugin](#)



1.3.2



[Bootstrap 4 API Plugin](#) 4.6.0-5

Provides Bootstrap 4 for Jenkins plugins.

[Report an issue with this plugin](#)



4.6.0-3



[Build Monitor View](#) 1.13+build.202205140447

Provides a highly visible view of the status of selected Jenkins jobs. It easily accommodates different computer screen sizes and is ideal as an Extreme Feedback Device to be displayed on a screen on your office wall.



1.13+b...



[Build Timeout](#) 1.28

This plugin allows you to automatically terminate a build if it's taking too long.

[Report an issue with this plugin](#)



1.26



[Command Agent Launcher Plugin](#) 90.v669d7ccb\_7c31

Allows agents to be launched using a specified command.

[Report an issue with this plugin](#)



84.v4...



[Defensics](#) 2022.12.0

Synopsys Defensics plugin for fuzz testing.

[Report an issue with this plugin](#)



2021....



[Defensics](#) 2022.12.0

Synopsys Defensics plugin for fuzz testing.

[Report an issue with this plugin](#)



2021....



Docker Pipeline 563.vd5d2e5c4007f  
Build and use Docker containers from pipelines.  
[Report an issue with this plugin](#)

 528.v... 

Email Extension Plugin 2.94  
This plugin is a replacement for Jenkins's email publisher. It allows to configure every aspect of email notifications: when an email is sent, who should receive it and what the email says  
[Report an issue with this plugin](#)

 2.93 

Embeddable Build Status Plugin 339.v1edb\_5e63da\_45  
This plugin adds the embeddable build status badge to Jenkins so that you can easily hyperlink/show your build status from elsewhere.  
[Report an issue with this plugin](#)

 312.vf... 

External Monitor Job Type Plugin 203.v683c09d993b\_9  
Adds the ability to monitor the result of externally executed jobs  
[Report an issue with this plugin](#)

 192.v... 

GitHub Branch Source Plugin 1701.v00cc8184df93  
Multibranch projects and organization folders from GitHub. Maintained by CloudBees, Inc.  
[Report an issue with this plugin](#)

 1696.... 

GitHub Integration Plugin 0.5.0  
GitHub Integration Plugin for Jenkins

 0.4.0 

Gradle Plugin 2.3  
This plugin allows Jenkins to invoke [Gradle](#) build scripts directly.  
[Report an issue with this plugin](#)

 2.2 

[Icon Shim](#) 3.0.0

Deprecated: No longer does anything, you can uninstall this plugin



2.0.3



[JavaMail API](#) 1.6.2-9

This plugin provides the [JavaMail](#) API for other plugins.

[Report an issue with this plugin](#)



1.6.2-8



[JavaScript GUI Lib: ACE Editor bundle plugin](#) 1.1

JavaScript GUI Lib: ACE Editor bundle plugin.

[Report an issue with this plugin](#)

This plugin is deprecated. In general, this means that it is either obsolete, no longer being developed, or may no longer work.

[Learn more.](#)



[JavaScript GUI Lib: Handlebars bundle plugin](#) 3.0.8

JavaScript GUI Lib: Handlebars bundle plugin.

[Report an issue with this plugin](#)

This plugin is deprecated. In general, this means that it is either obsolete, no longer being developed, or may no longer work.

[Learn more.](#)



1.1.1



[JavaScript GUI Lib: jQuery bundles \(jQuery and jQuery UI\) plugin](#) 1.2.1

JavaScript GUI Lib: jQuery bundles (jQuery and jQuery UI) plugin.

[Report an issue with this plugin](#)

This plugin is deprecated. In general, this means that it is either obsolete, no longer being developed, or may no longer work.

[Learn more.](#)



[JavaScript GUI Lib: Moment.js bundle plugin](#) 1.1.1

JavaScript GUI Lib: Moment.js bundle plugin.

[Report an issue with this plugin](#)

This plugin is deprecated. In general, this means that it is either obsolete, no longer being developed, or may no longer work.

[Learn more.](#)



jnr-posix API Plugin 3.1.16-2

This plugin provides [jnr-posix](#) API for other plugins.

[Report an issue with this plugin](#)



3.1.16-1



LDAP Plugin 659.v8ca\_b\_a\_fe79fa\_d

Adds LDAP authentication to Jenkins

[Report an issue with this plugin](#)



2.12



Lockable Resources plugin 1123.v4002ee23c671

This plugin allows to define external resources (such as printers, phones, computers) that can be locked by builds. If a build requires an external resource which is already locked, it will wait for the resource to be free.

[Report an issue with this plugin](#)



1102.v...



Matrix Authorization Strategy Plugin 3.1.6

Offers matrix-based security authorization strategies (global and per-project).

[Report an issue with this plugin](#)



3.1.5



Maven Release Plug-in Plug-in 0.16.3

A plug-in that enables you to perform releases using the [maven-release-plugin](#) from Jenkins.

[Report an issue with this plugin](#)



0.16.2



NodeJS Plugin 1.6.0

NodeJS Plugin executes [NodeJS](#) script as a build step.

[Report an issue with this plugin](#)



1.5.1



Oracle Java SE Development Kit Installer Plugin 63.v62d2fd4b\_4793

Allows the Oracle Java SE Development Kit (JDK) to be installed via download from Oracle's website.

[Report an issue with this plugin](#)



55.v1b...



[PAM Authentication plugin](#) 1.10

Adds Unix Pluggable Authentication Module (PAM) support to Jenkins  
[Report an issue with this plugin](#)



1.8



[Pipeline](#) 590.v6a\_d052e5a\_a\_b\_5

A suite of plugins that lets you orchestrate automation, simple or complex. See [Pipeline as Code with Jenkins](#) for more details.  
[Report an issue with this plugin](#)



581.v...



[Pipeline: Deprecated Groovy Libraries](#) 609.vd95673f149b\_b

Hosting of Pipeline Groovy libraries inside a Jenkins Git server. **Deprecated.** Use [Pipeline: Groovy Libraries](#) instead. If you see this plugin installed just because you upgraded, you can probably uninstall it now. This plugin should only be used if you have historically *pushed* libraries to a Git server inside Jenkins.

[Report an issue with this plugin](#)



588.v...



[Pipeline: GitHub Groovy Libraries](#) 38.v445716ea\_edda\_

Allows Pipeline Groovy libraries to be loaded on the fly from GitHub.  
[Report an issue with this plugin](#)



36.v4...



[Pipeline: Stage View Plugin](#) 2.31

Pipeline Stage View Plugin.  
[Report an issue with this plugin](#)



2.28



[Post build task](#) 1.9

Allows to execute a batch/shell task depending on the build log output.  
[Report an issue with this plugin](#)



1.8



[Publish Over SSH](#) 1.24

Send build artifacts over SSH  
[Report an issue with this plugin](#)



1.22



[Release Plugin](#) 2.15

This plugin allows you to configure pre and post build actions that are executed when a release build is manually triggered.  
[Report an issue with this plugin](#)



2.14



[Slack Notification Plugin](#) 631.v40deea\_40323b

Integrates Jenkins with Slack, allows publishing build statuses, messages and files to Slack channels.

[Report an issue with this plugin](#)



629.vf...



[SSH Build Agents plugin](#) 2.854.v7fd446b\_337c9

Allows to launch agents over SSH, using a Java implementation of the SSH protocol.

[Report an issue with this plugin](#)



2.846....



[Status Monitor Plugin](#) 1.3

This plugin shows all specified jobs on a single screen overview, that could be used to present the state of hudson to a teams visually.

[Report an issue with this plugin](#)



[Subversion Plug-in](#) 2.17.1

This plugin adds Apache Subversion support (via SVNKit) to Jenkins.

[Report an issue with this plugin](#)



2.17.0



[Timestamper](#) 1.22

Adds timestamps to the Console Output

[Report an issue with this plugin](#)



1.21



[WMI Windows Agents Plugin](#) 1.8.1

Allows you to setup agents on Windows machines over Windows Management Instrumentation (WMI)

[Report an issue with this plugin](#)



1.8



[Workspace Cleanup Plugin](#) 0.44

This plugin deletes the project workspace when invoked.

[Report an issue with this plugin](#)



0.43



# Configurando credenciales

## Dockerhub

- Configure your GitHub credentials in Jenkins Dashboard --> Manage Jenkins --> Security --> Manage Credentials --> Global Credentials --> **Add Credentials**
- Scope: **Global**
- Username: **DOCKERHUB-USERNAME**
- Password: **DOCKERHUB-PASSWORD**
- id : dockerhub
- Description: NA

# Configurando credenciales

## Github

- Configure your GitHub credentials in Jenkins Dashboard --> Manage Jenkins --> Security --> Manage Credentials --> Global Credentials -> Add Credentials Create Github credentials
- Scope: Global
- Username: GITHUB-USERNAME
- Password: github's personal access token
- id : github
- Description:

# Forkear el RSVPapp repo

## Agregar el Jenkisfile

- Forkear <https://github.com/joedayz/rsvpapp.git>
- Agrega el **Jenkisfile**
- Cambia la siguiente información:
  - IMAGE\_REPO = "joedayz/rsvpapp" (Coloca el tuyo)
  - HELM\_GIT\_REPO\_URL = "https://github.com/joedayz/rsvpapp.git" (Coloca el tuyo)
  - GIT\_REPO\_EMAIL = 'jose.diaz@joedayz.pe' (Usa tu email)
- El Jenkisfile consiste de 2 pasos:
  - Build: Este stage construye la nueva imagen, después, del commit.
  - Deploy: Este stage actualiza el nombre de la imagen y tag en el repositorio Helm.

# Configurar tu Jenkins pipeline

- Crear un Pipeline Job y asociar este con tu repositorio de código
  - En el Jenkins dashboard, clic en new item, dale un nombre y selecciona el tipo pipeline, luego, clic ‘ok’.
- Configurar el trigger
  - Selecciona Poll SCM y agrega el schedule como: \*/1\*\*\*
  - Con la configuración anterior sync el código fuente cada 1 minuto.

# Configurar tu Jenkins pipeline

- Configuración del Pipeline Trigger:
  - Select definition as **Pipeline script from SCM**
  - Select SCM as **Git**
  - Give your Git Hub Source Repository URL (<https://github.com/<USERNAME>/rsvpapp>)
  - Give script path as **Jenkinsfile**
  - Save and Apply

# Modificando el repositorio de Código fuente

- Hagamos algunos cambios en el frontend y luego verificar si el CI es disparado o no.
- Verifica si el build fue satisfactorio o no
- Verifica si la imagen esta en docker hub
- Verifica los valores en el repositorio helm
- Verifica el Dashboard de ArgoCD - ver si hay una nueva versión
- Accede al Deployment usando la UI
  - Clic en el rsvapp-ingress URL bajo la sección Lab URLs
  - Los nuevos cambios UI deberían reflejarse ahí.