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Successful Ansible AWX Setup Using Minikube

1 message

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26 January 2024 at 03:31

To: Ashish Kumar Jha <ashishk.jha@fosteringlinux.com>

Cc: Nitesh Jha <nitesh.jha@fosteringlinux.com>, PMO <pmo.central@keenable.in>

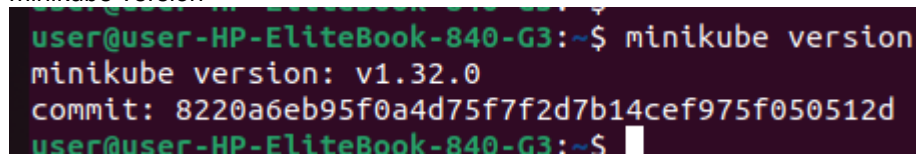
Dear sir,

As per your guidance,
I have successfully set up Ansible AWX using Minikube.

Here, I am sharing the steps:

Minikube Installation:

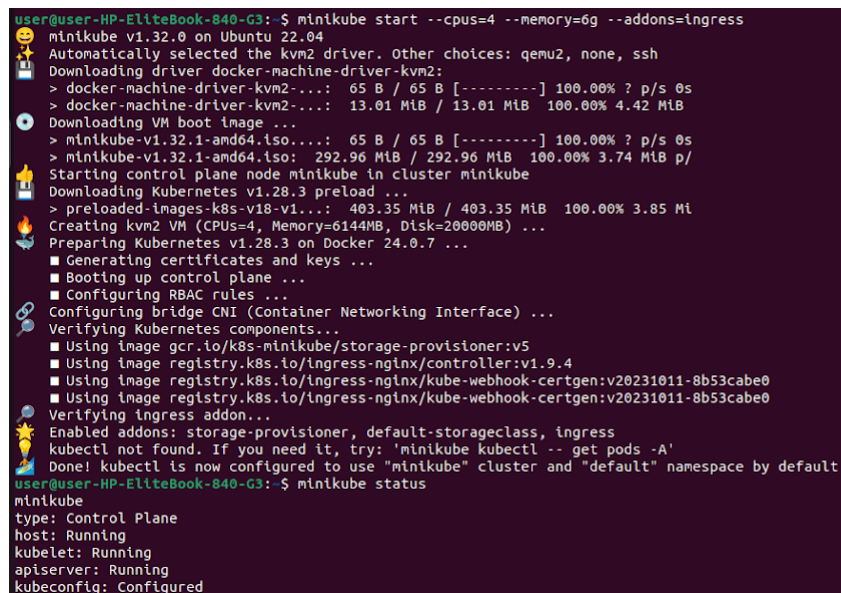
```
curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
sudo install minikube-linux-amd64 /usr/local/bin/minikube
minikube version
```



```
user@user-HP-EliteBook-840-G3:~$ minikube version
minikube version: v1.32.0
commit: 8220a6eb95f0a4d75f7f2d7b14cef975f050512d
user@user-HP-EliteBook-840-G3:~$
```

Minikube Start:

```
minikube start --cpus=4 --memory=6g --addons=ingress
minikube status
docker ps -a
minikube kubectl -- get nodes
```



```
user@user-HP-EliteBook-840-G3:~$ minikube start --cpus=4 --memory=6g --addons=ingress
minikube v1.32.0 on Ubuntu 22.04
🔧 Automatically selected the kvm2 driver. Other choices: qemu2, none, ssh
📦 Downloading driver docker-machine-driver-kvm2:
> docker-machine-driver-kvm2-....: 65 B / 65 B [-----] 100.00% ? p/s 0s
> docker-machine-driver-kvm2-....: 13.01 MiB / 13.01 MiB 100.00% 4.42 MiB
📦 Downloading VM boot image ...
> minikube-v1.32.1-amd64.iso.....: 65 B / 65 B [-----] 100.00% ? p/s 0s
> minikube-v1.32.1-amd64.iso: 292.96 MiB / 292.96 MiB 100.00% 3.74 MiB p/
🔥 Starting control plane node minikube in cluster minikube
📦 Downloading Kubernetes v1.28.3 preload ...
> preloaded-images-k8s-v18-v1....: 403.35 MiB / 403.35 MiB 100.00% 3.85 Mi
🔥 Creating kvm2 VM (CPUs=4, Memory=6144MB, Disk=20000MB) ...
🔧 Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
   ▪ Generating certificates and keys ...
   ▪ Booting up control plane ...
   ▪ Configuring RBAC rules ...
🔧 Configuring bridge CNI (Container Networking Interface) ...
🔧 Verifying Kubernetes components...
   ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
   ▪ Using image registry.k8s.io/ingress-nginx/controller:v1.9.4
   ▪ Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v20231011-8b53cabe0
   ▪ Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v20231011-8b53cabe0
🔧 Verifying ingress addon...
🔧 Enabled addons: storage-provisioner, default-storageclass, ingress
⚠️ kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'
🎉 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
user@user-HP-EliteBook-840-G3:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

AWX Operator

vim kustomization.yaml

apiVersion: [kustomize.config.k8s.io/v1beta1](https://github.com/ansible/awx-operator/blob/main/config/default/kustomization.yaml)

kind: Kustomization

resources:

- [github.com/ansible/awx-operator/config/default?ref=2.0.1](https://github.com/ansible/awx-operator/blob/main/config/default/kustomization.yaml)

images:

- name: [quay.io/ansible/awx-operator](https://quay.io/repository/ansible/awx-operator)

```
newTag: 2.0.1
namespace: awx
```

Installation:

```
kubectl apply -k.
kubectl get pods -n awx
```

NAME	READY	STATUS	RESTARTS	AGE
awx-operator-controller-manager-c7795b96b-2m84d	2/2	Running	0	3m33s

```
cat awx-server.yaml
---
apiVersion: awx.ansible.com/v1beta1
kind: AWX
metadata:
  name: awx-server
spec:
  service_type: nodeport
```

```
cat kustomization.yaml
---
apiVersion: kustomize.config.k8s.io/v1beta1
kind: Kustomization
resources:
- github.com/ansible/awx-operator/config/default?ref=2.0.1
- awx-server.yaml
images:
- name: quay.io/ansible/awx-operator
  newTag: 2.0.1
namespace: awx
```

```
kubectl apply -k.
```

Accessing AWX:

```
kubectl config set-context --current --namespace=awx
Context "minikube" modified.
```

```
kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
awx-operator-controller-manager-6c5bb555b6-hp4xl	2/2	Running	0	6m8s
awx-server-postgres-13-0	1/1	Running	0	98s

```
kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
awx-operator-controller-manager-6c5bb555b6-hp4xl	2/2	Running	2 (48s ago)	13m
awx-server-postgres-13-0	1/1	Running	0	9m12s
awx-server-task-688bc87d96-vg9d2	4/4	Running	0	7m32s
awx-server-web-64659d599d-znmqd	3/3	Running	0	5m24s

```
kubectl get svc
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
awx-operator-controller-manager-metrics-service	ClusterIP	10.105.211.112	<none>	8443/TCP	16m
awx-server-postgres-13	ClusterIP	None	<none>	5432/TCP	11m
awx-server-service	NodePort	10.103.229.150	<none>	80:30826/TCP	10m

```
minikube ip
192.168.39.20
```

```
kubectl get svc awx-server-service
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
awx-server-service	NodePort	10.103.229.150	<none>	80:30826/TCP	17m

http://192.168.39.20:30826

← → ↻ ⚠ Not secure 192.168.39.20:30826/#/login

Welcome to AWX!

Please log in

Username *

Password *

Log In

← → ↻ 127.0.0.1:34127/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard/proxy/#/secret/awx/awx-server-admin-password?namespace=awx

awx 🔍 Search

Config And Storage > Secrets > awx-server-admin-password

Workloads ⓘ

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses ⓘ

Ingress Classes

Services ⓘ

Config and Storage

Config Maps ⓘ

Persistent Volume Claims ⓘ

Secrets ⓘ

Storage Classes

Cluster

Cluster Role Bindings

Metadata

Name	Namespace	Created	Age	UID
awx-server-admin-password	awx	Jan 26, 2024	25 minutes ago	0b6c0d5b-a788-4966-b0ba-9970043e6d6d

Labels

app.kubernetes.io/component: awx app.kubernetes.io/managed-by: awx-operator app.kubernetes.io/operator-version: 2.0.1 app.kubernetes.io/part-of: awx-server

Annotations

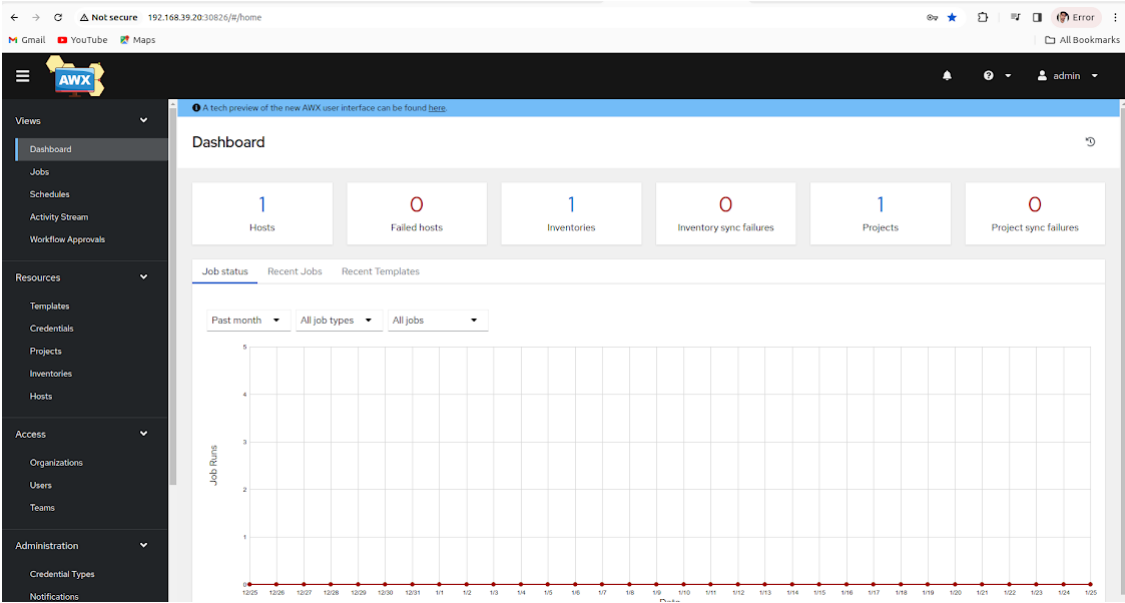
kubectrl.kubernetes.io/last-applied-configuration

Data

password 🔑

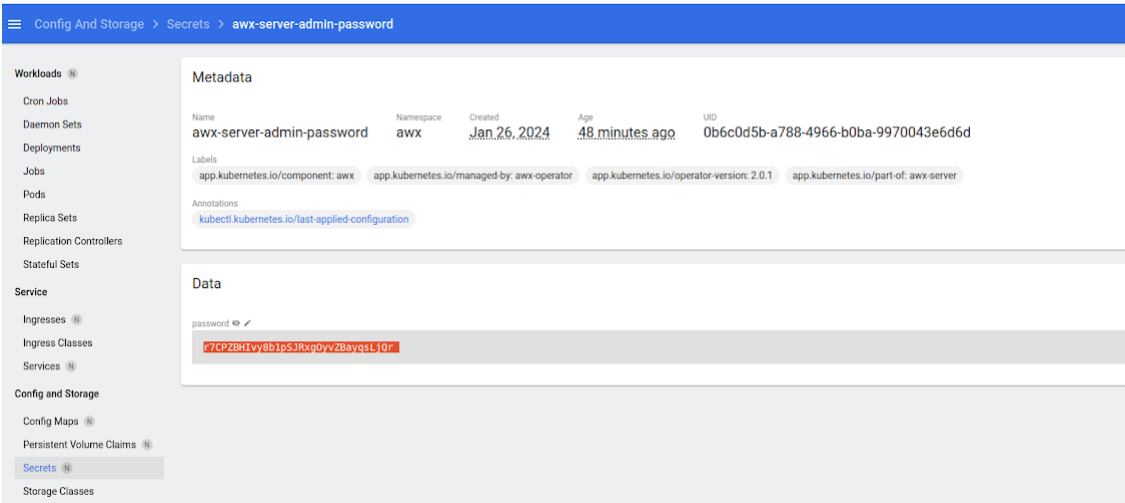
F7CP2BH1vy8b1p5JRxg0yvzBaqslJ0P

Minikube Dashboard:
minikube dashboard



Here are the steps for checking the admin password from the minikube datasbord.

- 1). Select namespace **awx**
- 2). Click on **secret key**
- 3). Click on **awx-server-admin-password**
- 4). Now, click on the **password** from data.



I request to guide me more and assign me tasks.

Thanks & Regards,
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