# First pipeline - check version

First, we install the necessary components in the setup directory:

|  |
| --- |
| cd /home/user/kubernetes-devops-security/setup/vm-install-script/  bash install-script.sh |

Check k8s resource:

|  |
| --- |
| kubectl get node -o wide  kubectl run nginx-pod --image nginx  kubectl expose po nginx-pod --port 80 --type NodePort  kubectl get svc |

Check file config

|  |
| --- |
| [[ ! -z "$KUBECONFIG"]] && echo"$KUBECONFIG"|| echo"$HOME/.kube/config" |

Install jenkins:

|  |
| --- |
| nano /etc/apt/sources.list.d/jenkins.list  sudo apt-key del FCEF32E745F2C3D5    curl -fsSLhttps://pkg.jenkins.io/debian/jenkins.io-2023.key | sudo tee\/usr/share/keyrings/jenkins-keyring.asc >/dev/null  echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \https://pkg.jenkins.io/debian binary/ | sudo tee\/etc/apt/sources.list.d/jenkins.list >/dev/null    sudo apt-get update  sudo apt-get install jenkins |

**k8s credential**

Export file kubeconfig:

|  |
| --- |
| cat /root/.kube/config |

Go to Manage Jenkins - Credentials System - Global credentials

Create kubeconfig and add file config above

Dashboard 
Manage Jenkins 
Credentials 
System 
Global credentials (unrestricted) 
New credentials 
Kind 
Secret file 
Scope 
Global (Jenkins, nodes, items, all child items, etc) 
File 
Chon tep 
Khöng cd tep nSo du—c chon 
kubeconfig 
o 
This ID is already in use 
Description 
kubeconfig 

This is can fix error: Unable to connect to the server: x509: certificate signed by unknown authority.

Now, we can create an example of a file pipeline for version checking:

|  |
| --- |
| pipeline {    agent any    stages {      stage('git version') {        steps {          sh "git version"        }      }      stage('maven version') {        steps {          sh "mvn -v"        }      }      stage('docker version') {        steps {          sh "docker -v"        }      }      stage('kubernetes version') {        steps {          withKubeConfig([credentialsId: 'kubeconfig']) {            sh "kubectl version"          }        }      }    }  } |

Command withKubeConfig([credentialsId: 'kubeconfig']) in pipeline will check credential to logic k8s, if you don't use ths command, you cannot run command about k8s because pipeline run with jenkins user and it is not have permission access k8s api by default. And to perform this command, you need install k8s cli plugins in jenkins.

Now, run build pipeline.

Dashboard 
Manage Jenkins 
Plugin Manager 
Q 
Search plugin updates 
This plugin is up for adoption! We are looking for new maintainers. Visit our Adopt a PiugÅ_1 
JUnit 1177.v90374a ef4d09 
Build Reports 
Allows 'Unit-format test results to be published. 
Applying this update will address security vulnerabilities in the currently installed version. 
JWT for Blue Ocean 1.27.1 
External Site/TooI Integrations User Interface 
BlueOcean JWT plugin: Enables JWT based BlueOcean API authentication 
ku bernetes 
Configure kubectl for Kubernetes 
Kubernetes Client API 6.4.1-208.vfe09a 9362c2c 
kubernetes Library plugins (for use by other plugins) 
Kubernetes Client API plugin for use by other Jenkins plugins. 
Kubernetes Credentials 0.10.0 
ku bernetes 
Common classes for Kubernetes credentials 
LDAP 659.v8ca b a fe79fa d 
Authentication and User Management 
Adds LDAP authentication to Jenkins 
Mailer 448,v5b 97805e3767 
row after r6tMt 
Update information obtained: 1 day 7 hr ago 
Check now 