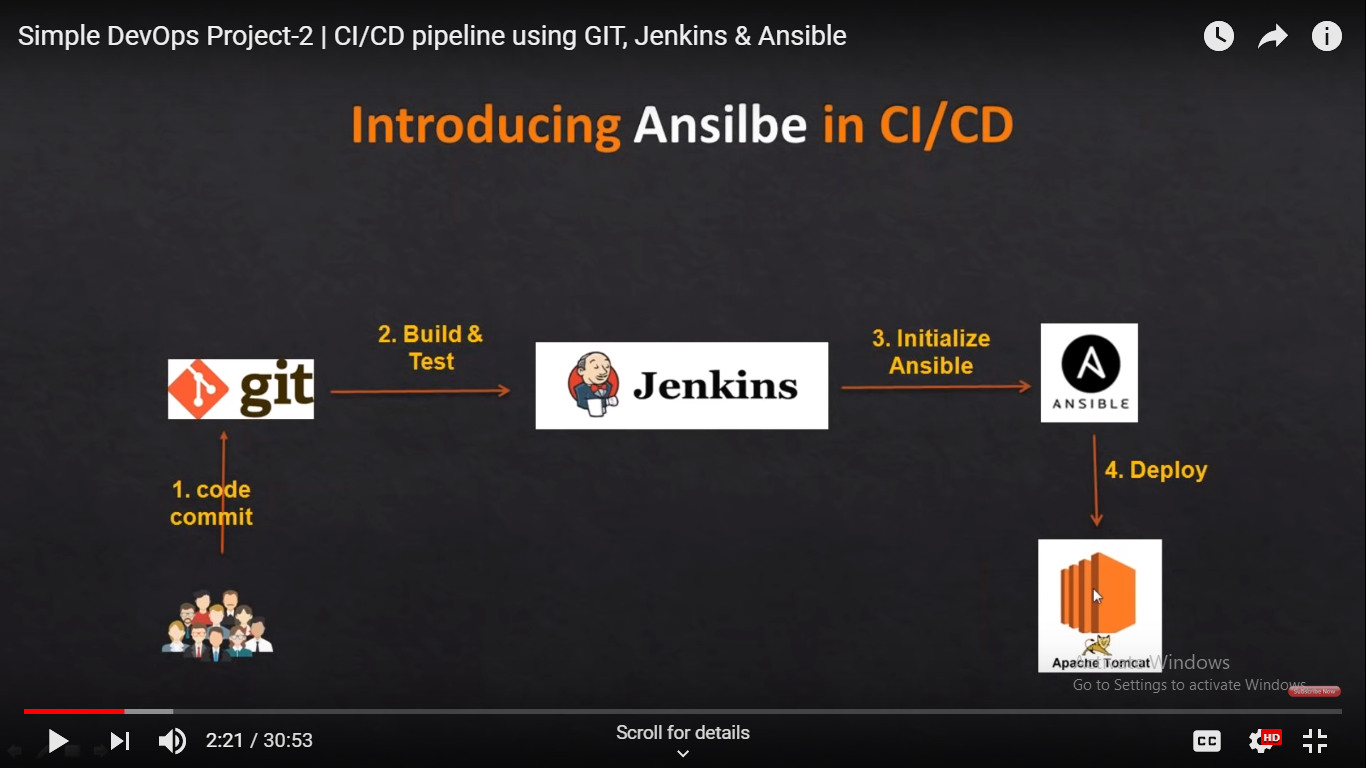
**Case study for Ansible Deployment**

**Case study workflow**



1. Pre-requites

* JDK 1.8 in control and slave machine
* ansible in Control machine
* Jenkins in your local machine
* Tomcat in Slave machine

1. #Install java 8 using below steps

**$ sudo su -**

**$ yum install java-1.8.0-openjdk-devel -y**

**$ update-alternatives --config java**

select the new java option

**$ update-alternatives --config javac**

select the new java option

**$ update-alternatives --config jar**

1. Install Jenkins in New machine or setup existing Jenkins

$ sudo wget -O /etc/yum.repos.d/jenkins.repo http://pkg.jenkins.io/redhat-stable/jenkins.repo

$ sudo rpm --import <http://pkg.jenkins.io/redhat-stable/jenkins.io.key>

$ sudo yum install jenkins –y

$ sudo service jenkins start

#update the inbound rules if you are using aws servers to access Jenkins from outside

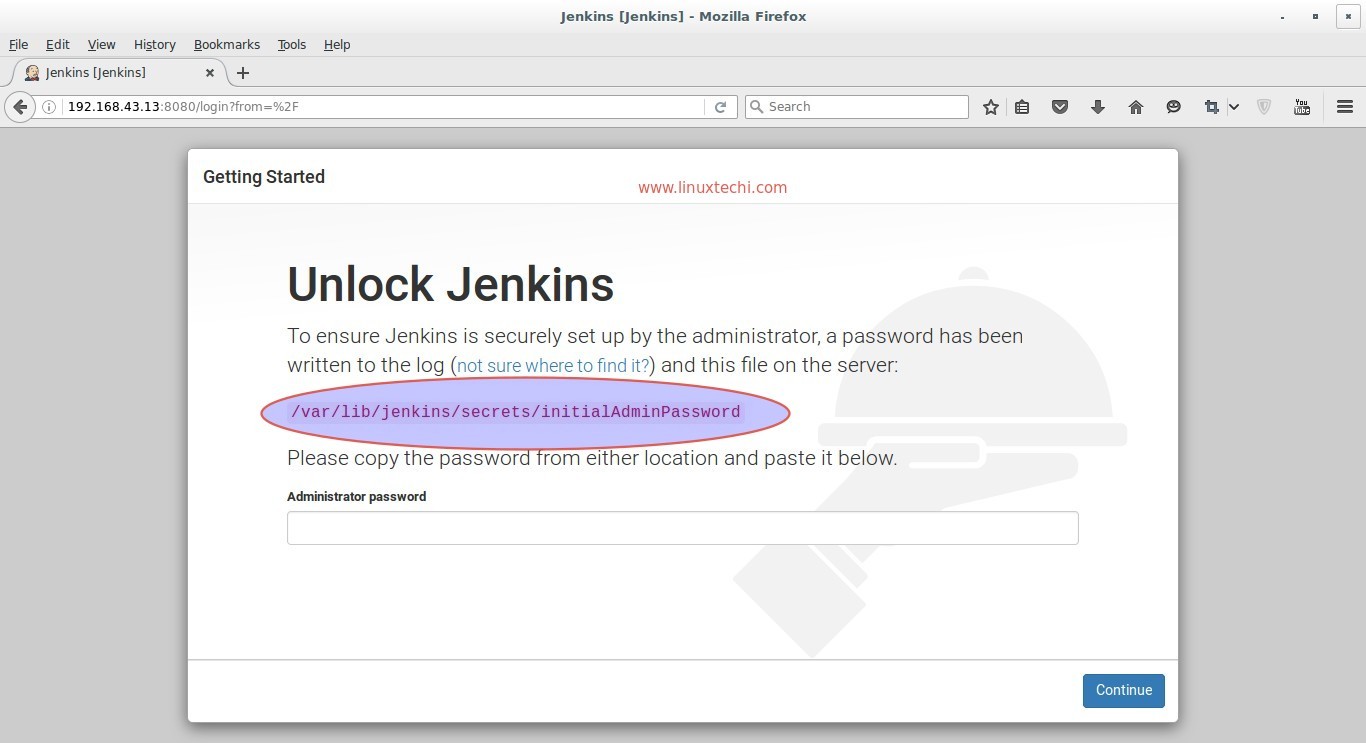
|  |  |  |  |
| --- | --- | --- | --- |
| All TCP | TCP | 0 - 65535 | 0.0.0.0/0 |

Security group – inbound rule – add like below

1. #Install git in Jenkins server

$ sudo yum install git

1. Configure Jenkins, access the Jenkins in the browser using ipaddress of the sytem and 8080 port



Follow the process to complete Jenkins initial setup

#Configure maven and jdk in global tool configuration

# install maven integration plugin

# install publish over ssh plugin

1. Use this step for manual installation of tomcat in slave machine. Configure the jdk and tomcat in slave machine

#Install the jdk using steps given in first page

#Login to slave machine and install the apache tomcat, use below link to download

<https://tomcat.apache.org/download-80.cgi>

Under /opt/tomcat/

$ sudo wget http://mirrors.estointernet.in/apache/tomcat/tomcat-8/v8.5.39/bin/apache-tomcat-8.5.39.tar.gz

$ tar –xzvf apache-tomcat-8.5.39.tar.gz

Tomcat-users.xml

<role rolename="manager-gui"/>

<role rolename="manager-script"/>

<role rolename="manager-jmx"/>

<role rolename="manager-status"/>

<user username="ansadmin" password="Shiva@90" roles="manager-gui,manager-script,manager-jmx,manager-status" />

#start the tomcat from bin folder

./catalina.sh start

#verify that if you are able to access it from browser, enable inbound rules to open al ports to public if you are using aws server

http://<ipaddres>:8080

1. Login to control machine and create this file for enabling tomcat as service in slave machines

$ cd /home/ansadmin

$ vi tomcat

**#!/bin/bash**

**# description: Tomcat Start Stop Restart**

**# processname: tomcat**

**# chkconfig: 234 20 80**

**JAVA\_HOME=/usr/bin/java**

**export JAVA\_HOME**

**PATH=$JAVA\_HOME/bin:$PATH**

**export PATH**

**CATALINA\_HOME=/home/ansadmin/apache-tomcat-8.5.39**

**case $1 in**

**start)**

**sh $CATALINA\_HOME/bin/startup.sh**

**;;**

**stop)**

**sh $CATALINA\_HOME/bin/shutdown.sh**

**;;**

**restart)**

**sh $CATALINA\_HOME/bin/shutdown.sh**

**sh $CATALINA\_HOME/bin/startup.sh**

**;;**

**esac**

**exit 0**

1. Login to control machine and write playbook for copying war to slave machine

- hosts: slave

become: yes

tasks:

- name: create tomcat folder

file:

path: /home/ansadmin/tomcat

state: directory

mode: 0755

- name: Download tomcat

get\_url:

url: http://mirrors.estointernet.in/apache/tomcat/tomcat-8/v8.5.41/bin/apache-tomcat-8.5.41.tar.gz

dest: /home/ansadmin/tomcat

- name: change to tomcat folder

shell: cd /home/ansadmin/tomcat/

- name: extracting tomcat

shell: tar -xzvf /home/ansadmin/tomcat/apache-tomcat-8.5.41.tar.gz

- name: copy war file to tomcat

copy:

src: /home/ansadmin/CounterWebApp.war

dest: /home/ansadmin/apache-tomcat-8.5.41/webapps

- name: Give permissions to tomcat

file:

path: /home/ansadmin/apache-tomcat-8.5.41/

state: directory

mode: 0777

recurse: yes

- name: copy tomcat service file

copy:

src: /home/ansadmin/tomcat

dest: /etc/init.d/

- name: enable the tomcat service

shell: chkconfig --add tomcat

- name: enable the tomcat

shell: chkconfig --level 234 tomcat on

- name: Give permissions to tomcat

file:

path: /etc/init.d/tomcat

state: file

mode: 0777

- name: Start apache tomcat

shell: service tomcat restart

1. configure the Jenkins jobs to do git checkout, maven build and publish over ssh

