1) One VM to have Ansible Server (ansibleserver)

2) One VM for App Server (production)

3) One VM for GIT (gitserver)

4) One VM for Jenkins(jenkinsserver)

GIT Server

1) Open CentOS Machine "gitserver" as shared in DATA.

2) Add following entries to /etc/hosts [[sudo vi /etc/hosts]]

    <IP Address> gitserver

3) For Creating Remote Repository[[Creating GIT Repository with "gituser" as ADMIN]]==>

a) sudo groupadd dev

b) sudo useradd -G dev -d /home/gituser -m -s /bin/bash gituser

c) sudo passwd gituser

d) sudo yum install git

e) su - gituser

As gituser ==>

f) mkdir hello.git

g) cd hello.git/

h) git --bare init

i) cd ..

j) mkdir hello-test.git

k) cd hello-test.git/

l) git --bare init

4) Switch to Developer User Directory==>

a) git config --global user.name "Sagar Mehta"

b) git config --global user.email "sagar.mehta@atgensoft.com"

c) git config --global core.editor vim

d) git config --list

e) ssh-keygen

f) ssh-copy-id -i ~/.ssh/id_rsa.pub gituser@gitserver

g) Copy hello & hello-test directories to Users' Home

h) cd hello

i) git init ; git add .

j) git commit -m "Initial Commit" -a

k) git log

l) git remote add origin gituser@gitserver:hello.git

m) git push origin master

n) cd ../hello-test

o) git init ; git add .

p) git commit -m "Initial Commit" -a

q) git log

r) git remote add origin gituser@gitserver:hello-test.git

s) git push origin master

Jenkins Server

1) Open CentOS Machine "jenkinsserver" as shared in DATA.

2) Add following entries to /etc/hosts [[sudo vi /etc/hosts]]

<IP Address> jenkinsserver

<IP Address> gitserver

<IP Address> ansibleserver

3) sudo yum install java-1.8.0-openjdk git

4) sudo wget http://repos.fedorapeople.org/repos/dchen/apache-maven/epel-apache-maven.repo -O /etc/yum.repos.d/epel-apache-maven.repo

5) sudo yum install apache-maven

6) sudo wget -O /etc/yum.repos.d/jenkins.repo http://pkg.jenkins-ci.org/redhat/jenkins.repo

7) sudo rpm --import http://pkg.jenkins-ci.org/redhat/jenkins-ci.org.key

8) sudo yum install jenkins

9) sudo chkconfig jenkins on

10) sudo service jenkins start

11) sudo rpm -iUvh http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm

12) sudo yum install -y docker-io

13) sudo service docker start

14) sudo chkconfig docker on

15) sudo usermod -aG dockerroot jenkins ; sudo usermod -aG dockerroot wfuser

16) sudo groupadd docker

17) sudo usermod -aG docker jenkins ; sudo usermod -aG docker wfuser

18) sudo service docker restart

19) sudo passwd jenkins

20) sudo vi /etc/passwd

Change

jenkins:x:496:493:Jenkins Continuous Integration
Server:/var/lib/jenkins:/bin/false

to

jenkins:x:496:493:Jenkins Continuous Integration
Server:/var/lib/jenkins:/bin/bash

21) cp /home/wfuser/Desktop/plugins.tar /tmp/plugins.tar ; chmod -R 777 /tmp/plugins.tar

22) su - jenkins

23) tar -xvf /tmp/plugins.tar

24) exit

25) sudo init 6 [[Reboot Your VM]]

26) sudo docker load -i /home/wfuser/Desktop/dockerimage_tomcat.tar

27) Finally, after the installation is complete you can visit the following Address in your browser http://your-ip-address:8080

28) Building Web App Jobs ==>

a) Create A Free Style Project(helloBUILD)

b) Add GIT remote url in browser "gituser@gitserver:hello.git"

c) Invoke Top Level Maven targets

Goals ==> clean package

POM ==> pom.xml

d) Go to Manage Jenkins -> Configure system

Add JAVA_HOME and its path(/usr/lib/jvm/java-1.7.0-openjdk-1.7.0.171.x86_64/jre) in Global Properties -> Environment Variables

e) su - jenkins

f) cd /var/lib/jenkins/jobs/<JOBNAME>

g) git config --global user.name "Sagar Mehta"

h) git config --global user.email "sagar.mehta@atgensoft.com"

i) git init

j) git remote add origin ssh://gituser@gitserver/hello.git

k) git remote set-url origin gituser@gitserver:hello.git

l) cd

m) ssh-keygen

n) ssh-copy-id -i ~/.ssh/id_rsa.pub gituser@gitserver

o) ssh-copy-id -i ~/.ssh/id_rsa.pub root@puppet

p) Create A Free Style Project(helloTEST)

q) Build Triggers ==> Build After helloBUILD

r) GIT URL ==> gituser@gitserver:hello-test.git

s) Build Environment ==> Delete workspace before build starts

t) Build ==>

u) Invoke Shell -->

v) docker run -itd -v /var/lib/jenkins/workspace/helloBUILD/target/hello.war:/usr/local/tomcat/webapps/hello.war -p 9090:8080 --name helloWebApp tomcat

w) Invoke Top Level Maven Targets -->

x) clean verify

y) Invoke Shell -->

z) docker kill helloWebApp ; docker rm helloWebApp

29) Down in Post-build Actions check the Publish Performance test result report checkbox.

30) Click the Add a new report box and choose JMeter.

31) For Report files specify **/*.jtl

32) Also under Post-build Actions check the Archive the artifacts checkbox.

33) Under Files to archive specify **/*jtl-report.html. This will keep a copy of the html formatted reports for each build so you can look at them in Jenkins.

34) Create A Free Style Project(helloDEPLOY)

a) Build Triggers ==> Build After helloTEST

b) Build Environment ==> Delete workspace before build starts

c) Build ==>

Invoke Shell -->

scp /var/lib/jenkins/workspace/helloBUILD/target/hello.war root@ansibleserver:/etc/ansible/files/