DevOps Project 1

Github, Jenkins, Ansible

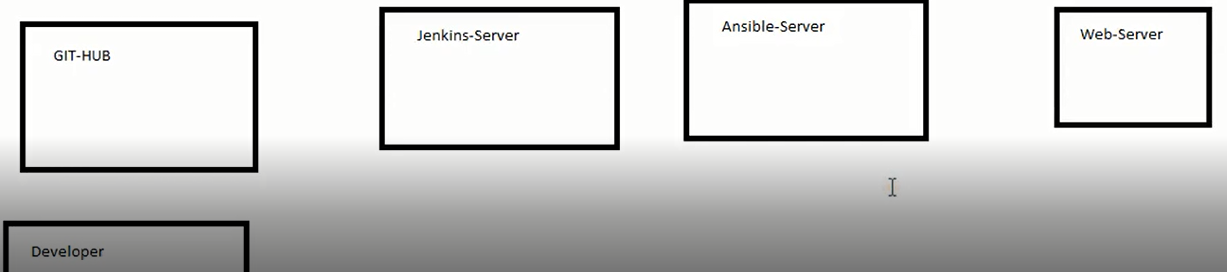
Developer will upload his code in Github

Github will be integrated with Jenkins-server

Jenkins will compile and build the code and give it to ansible server

Then Jenkins will trigger ansible playbook in ansible server

Playbook will upload that code on webserver.



1) launch 4 ec2--> developer system, jenkins-server, ansible-server, web-server

2) connect to jenkins-server--> install java, jenkins

3) connect to ansible server--> install ansible

vim etc/ansible/hosts

add -->

[web]

private\_ip\_of\_webserver

4) connect to web-server -->

yum install httpd

systemctl start httpd

systemctl enable httpd

passwd root

vim /etc/ssh/sshd\_config

permitRootLogin yes

passwordAuthentication yes

systemctl start sshd

5) ansible-server and webserver make pw-less authenticatin

go to ansible server

ssh-keygen

ssh-copy-id -i root@private\_ip\_of\_webserver

ssh root@private\_ip\_of\_webserver shall not ask pw

6) ansible-server and jenkins-server make pw-less authenticatin

go to ansible-server

passwd root

vim /etc/ssh/sshd\_config

permitRootLogin yes

passwordAuthentication yes

systemctl start sshd

go to jenkins server

ssh-keygen

ssh-copy-id -i root@private\_ip\_of\_ansible\_server

7) go to ansible-server to create playbook

mkdir /sourcecode

cd /sourcecode

vim playbook.yml

- hosts: all

tasks:

- copy:

src: /opt/index.html

dest: /var/www/html

7) go to github --> create one repo

create one file with any data

8) integrate github with jenkins

go to jenkins

copy jenkins url

cloud--> configure --> add new token--> generate --> copy token keep it somewhere--> apply and save

go to gihub

settings --> webhooks--> add webhook

Payload url --> paste-url/github-webhook/

content type--> application/json

secret--> paste token

add webhook

9) install 'public over ssh' plugin in jenkins

connect to jenkins server and install git

yum install git -y

10) create new job--> freestyle --> give name demo-project

source code management --> git

give url

build now

check console o/p

new folder workspace/demo-project gets created inside /var/lib/jenkins/

Build Trigger

Github hook trigger got GITScm polling

connect to jenkins server

passwd root

vim /etc/ssh/sshd\_config

permitRootLogin yes

passwordAuthentication yes

systemctl start sshd

manage jenkins--> configure system --> scroll down--> SSH servers--> Add

fill details of jenkins server, give root id and pw, --> Test Configuration

do same for Ansible server

Build

Add build step

Send file or execute commands over ssh

Name: jenkins

Exec command: rsync -avh /var/lib/jenkins/workspace/demo-project/\*.html root@private-ip-of-ansible-server:/opt/index.html

apply and save

build now

check in ansible server at /opt

configure

postbuild actions:

send build artifacts over ssh

name: Ansible

exec command: ansible-playbook /sourcecode/playbook.yml

apply and save

Build now

check on webserver --> /var/www/html/index.html

open its ip in browser

go to deveoper system

install git

clone repo from github

edit sourcecode i.e index.html file

commit and push

git push origin master