Jenkins

39, (46, 47 ), Jenkins-pipeline.mkv, ci-cd-pipeline-setup

steps:- (video-39)

1. Create a server (8080)( add inbound rule )

-je.io(search in google & download ubuntu) copy

1. Terminal install java (sudo apt install fontconfig openjdk-17-jre) yes, java --version
2. Install jenkins ,jenkins --version
3. Copy the public ip & paste in google :8080
4. copy the path ( /var/lib/je………..)
5. paste in terminal (cat /var/lib/je………..)

-copy the password and paste in Jenkins server.

- clock on install suggested pulgins

7) Create First Admin User (user name:-admin,pass:-admin ,name:-admin)

8) now we are creating freestyle project

. click on new item

(name:-my project),click on freestyle.

. Description

(this is my project)

. Discard old builds (days:-10,max :-5)it will least builds.

* Source Code Management

(none)

* Triggers
* Build steps

(**Execute shell:-** **echo "this is jenkins") click on apply ,save**

* Click on bulid now its genertate logs.
* information will save in (/var) …… if you want to see type in terminal (1.cd /var/lib/Jenkins/)(2.ls)(3. Cd workspace)(4.ls) we can see ur project name.

# VIDEO C46 & C47

Configuring github-maven - Jenkins(free style integrating)

webhook maven

cccreated pat

github

Jenkins tomcat

Steps:-

now are integrating github

1. open github click on git settings

-click on developer settings

-click on personal access tokens( fine grained tokens)

- token name:-github-jenkins-pat

(all repository) generated token. Copy the token

2)go to Jenkins click on mange Jenkins:- click on plugins.

-Available plugins(github ) click on

* github integration
* github authencation
* pipeline:github & install.

1. go to manage Jenkins click on system

-github

* name:-github
* credentials:- add
* Kind:-secret text
* Secret:-paste the token
* Id:- github-pat
* Description:-github-pat click on test connection

3)now we have configure the repository setting

* Webhooks:-add
* Payload url:- <http://15.206.208.157:8080/github-webhook/>
* Content type:- json click on ADD

4)go to Jenkins create a project

* Name:-webhook-project ,free style project
* Discard days :-5,max:-5
* Github project( copy & paste url of repository)
* Source Code Management (git & paste the url of repository)
* Triggers :- GitHub hook trigger for GITScm polling
* Environment:- Add timestamps to the Console Output
*  click on save

5) git repo of index.jsp make changes like remove.

6) we do bulid in Jenkins click on changes we can see.

Now we have to intergatingmaven

1) go to terminal install maven sudo apt install maven –y , mvn –v

2)open Jenkins click on manage Jenkins:-click on plugins

- Available plugins(maven) click on

* Maven integration & install

3)go to manage Jenkins:-click on tools

* Maven installations:-add
* Name:- Apache Maven -3.8.7
* Version:-3.8.7 click on SAVE

4)go to dashboard click on webhook-project & rename employee\_project

-click on configure

* Build steps:- **Invoke top-level Maven targets**
* Maven Version :- Apache Maven -3.8.7
* Goals:-clean package click on SAVE & APPLY

- click on build now {it we build using maven} continue to integrating to tomcat

---------------------------------------------------------------------

{

Now we creating tomcat server 8080 (separate)(video-c11,12pm)

1. Create a server with new key pair

* Connect to Terminal
* Sudo – i , sudo apt update
* Now we have to install tomcat in directory
* ls /
* cd /opt/
* ls
* now go to google ,download the 9 version
* go to binary distribution :- tar.gz copy the address
* back to terminal wget paste
* ls (apche-tomcat-9.0.95.tar.gz)

{now we have to untar means exterring the file}

* tar –xvzf (apche-tomcat-9.0.95.tar.gz) ,ls
* now we have rename
* mv apche-tomcat-9.0.95 tomcat
* ls
* sudo apt install openjdk-21-jdk -y (install java)
* java –version
* cd tomcat
* ls (now we are creating username, password )
* cd conf
* ls
* vi tomcat-users.xml (here we have to edit the file)
* <!—(remove)
* <role rolename="manager-script"/>
* <role rolename="manager-gui"/>
* <user username="tomcat" password="tomcat" roles="manager-script,manager-gui"/>
* --🡪(remove)
* Cd ..
* ls
* cd webapps (to check whether deploy or not)
* ls
* cd manger
* ls
* cd META-INF
* ls
* vi context.xml
* <!-- (we have to add)
* <Valve className="org.apache.catalina.valves.RemoteAddrValve"
* allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" />
* --> (we have to add)
* cd ..//..//..//
* ls
* cd bin
* ls (now we have give permission to all file )
* chmod +x \*
* ls
* now we can start the server the command is
* ./startup.sh (start)
* We have to add port 8080 to the server
* Copy the server public ip & paste in google
* Click on manager app & do sigin username-tomcat & password-tomcat
* ./shutdown.sh (stop)

}

-------------------------------------------------------------------------

Now we are integtating tomcat server

1. C46 video (23 minutes)
2. Now we have start the tomcat server
3. We have start tomcat in terminal
4. ls /
5. cd /opt/
6. ls
7. cd tomcat
8. ls
9. cd bin
10. ls
11. ./startup.sh(important to start)
12. Go to Jenkins click on plugins deploy to container we have install
13. Click on emoloyee-details,click on configure
14. Click on post-build actions

* War/ear files:-\*\*/\*.war (this is default war file)
* Add container:- **Tomcat 9.x Remote**
* Credentials :-click on add
* Username:- tomcat
* Password:-tomcat
* Id:- tomcat\_username\_password
* Description:- tomcat\_username\_password ADD
* Copy the server ip &paste in google
* Tomcat <url:-> <http://3.108.255.228:8080/> click on APPLY ,SAVE
* Click on bulid

1. Go to tomcat server click on war file.

This is manual method of integrating git & maven& tomcat

# Jenkins-pipeline

Scripted

de

github\_pat\_11BNC2D6Y0pkYqOxq3FL1B\_0Zb3Ju19Z7UVrFkUZs4EUyAgsMITdgDv6HiPQRo38qlLPNXEJPOAhOU2ZoF