

## Deveps Assignment

3 bare php uchastes in github.

be Case

step 3. Gelling the code from github. github repository

Ball Glane • sada the gi git clone <copy the to local cord from githech

If the folder already the distory exists, then forerfrelly ne

- sredo am of folder name>

Again zere the clone command

step 2: Setting up jenkins

1) If jenkins command not up and running then were the

- seda systemet! start jenkins

Jenkins is password - Jenkins 21239

Step 3: Setting up the slave

1) Go to jenkins.

2) Select Manage jenkins

3)

Scroll down to "Configrere Global secuntry" - select

Scroll down to Agents option

5)

select the "Fixed" option and write 9000 for the

port Save

7) Again in manage jenkins select "Manage. Nades Land Clouds"

8)

Select +New Node (top left corner)

9)

Give Node name = abeentre - ip address of slave-server

10) Select permanent Agent

11) Save

12) (3 ) Number of executors = 1

Again select that created node and configure details

14) In the slave machine create a folder jenkins.

the slave machine has the command in •seido mkder jenkins

folder When will be created. be created use in /home/msis 'ls' command to test the contents.  
Folders will be displayed in blue, text files in white)

15 In

the master jenkins can add the configuration to Slave node Thome Imsisl jenkins in the  
remote root

directory: 16) Usage: Use this node much as possible

17)

Launch method: Launch agent by connecting it to the controller

18) Save

19)

Go to Configure System' manage jenkins

Go to Jenkins Location

21)

In the Jenkins URL change the ip from localhost to the master IP address. ex:-  
`http://172.16.51.27:8080/`

22) Save

on the created node

23) Click

24)

You will get curl and java command Copy the Curl command to slave & execute

25)

26)

Copy the java command use sed and copy the java command and run execute

27)

Nodes will be connected to master.

Step 4: Creating and hosting play website on aws

Select + New item

select 3) In Pipeline Restrict to this project Label Expression select the slave node created can be seen

+ Source Code management to git option

3/13

5) Select get

\*) In the repository URLs copy the github url paste it

2) Check of the branch in Jenkins and in github both same

If the branch name given in Github is different same has to be given for while copying the getteb URL. If its mard then in Jenkins maro has to be given

9) Go to Build steps.

9) Select Execute shell option

10) Copy the the shell script file contents from doply file in github and paste it

11) Save it

2) Build the project

3) Go to the slave machine

14) to hit localhost:80

15) This should open bookalbum webrite

16) bookalbum in the folder should be slave machine copeed /var/www/html

Step5t Pushing

Step 5: Containerging the docker image a php application to docker hub. and parking

1) Geate docker credentials.

→ Go to manage Jenkins

Go to Manage Credentials

Click uny "system" option cany

Click on the Global" option

→ Click on "+Add Credentails"

→ kind has to be "Username with password"

→Scape - Global (Jenkins, nodes, clems, all child items)

Give your dockerhub Wermane

→Goue payour password for your dockerhub profile →ID Give a name to identify the credentials.

Create a 3) freestyle object by selecting + New Filem

Restrict vahere this project can be ran- select this

option 4) Write the slave node name abante\_47\_server

5) Source code management - select git

the Github zerl and paste it

In build steps Sebet Docker Beild and Publish

8) In repository name a name Give dockerhub username and that has been created by you in dockerhub. Example: nidhisraoldockerdemo → This has to be

ا(

already created in dockerhub In Tag - you can mention version like VI

10) Registry in Credentials: Select the dockerhub credentials created

1) the first stop. Save it and breeld the project

12) YOU can check in the dockerhub the a new docker ima -ge with the given tag will be created in your hepository.

Step6: If we want to pull image to slave node and rean the docker image

1) Copy all the In build steps stops from select Stop 5 execute shell ary name

2) sudo docker. zen name 4012:80 nidhisraoldockerdemo: v1 denadorker -it-d-p

The newly created image in dockerhub

3) In the slave machine go to localhost:1012

You will get boshalbum webrite.

## Step 7 Kubernetes deployment

1) Go to + New item

Create a new freestyle project

Copy the git URL

5/13

In the build step select Deploy to Kubernetes

4) In the Reyso textbox provide your Werrame In the build step select Deploy to kubernetes

5) In the key Javebe config name textbox provide the kebent. that you have added in the credente

6) In the ls confeg feles give deployment yaml, service, yaml files name as comma separated valuer

7) Save it and build

a) Go to terminal

8) ssh 172.16.51.53@

9)

ssh chefrerver @172.16.51.53 password chef@123

ip=172.16.51.53

username = chef server

10) kubectl get pods

This command shows the newly created pod for the bookalbum

11)

sudo kubectl get svc

→ This will show the running with its port number services

With the thlove kubernetes node with the above shown ip. It will show the book album website

12)

Slave ip address = 172.16.51.50

Username = ansible.

password = sois@123

steps to create the credential for kubernetes

SSH to chefserver @ 172.16.51.53

ed lakeeba

sudo vi /home/ansible/.ssh/config

3) Copy this file content completely

4) Go to Jenkins

5)

Go to Manage Jenkins

6) Go to credentials

8)

Add credentials.

In kind select: kubernetes configuration (kubeconfig)

?) In kubeconfig select enter directly

7) The file content copied be pasted as here

Create the key

Steps to add kubernetes plugin if not present.

Go to [github.com/Nidhi-s-Rao/Plugen](https://github.com/Nidhi-s-Rao/Plugen)

2) Download 3) Go to the Manage hpi file Jenkins

Go to manage plugins

5) Go advanced

select the downloaded hpi file and depy..

UseCase -

Maven Application Build complete, install && action,

Step 1: Maven can compile Get repository:- My Maven App.

maven compiled with name Create freestyle project

Same code management

Get copy the URL from github mavenrepo

) Build steps: 3 Select Invoke top-level maven If this option is not available we have to add the plugin. add the plugin • To add

Go to Manage Jenkins

to Manage plugins

→go to available plugin & select Maven and install without restart Integration

plugin Once we select "Invoke top-level maven have to add the maven version Bon target

To add the maven version

7/13

4)

→go to Manage Jenkins

Go to Manage Credentials

Go to System-



Select the Global Credential

→ Add C

→ Go to Global Tool Configuration

Scroll down to Maven

Select Maven installations

→ Give name to the maven version

→ Save

In Maven You gave Version select the in step 4.

Go ahead give Clean compile

6) Paste Braid artifact

Build other projects

profiles you want to build give next profile to rename cache after the successful completion of maven\_compile\_demo.

Save

Step: Maven test demo

Create demo" a freestyle project with name" maven-test-

Source code management

"Got copy the URL from github mytrousnapp

Build stops.

- Invoke top-level Maven targets

Maven version: maven.

Goals: validate test

4) Post build actions.

publish HTML reports.

Reports HTML directory to archive in this give

target Index. page \*.xml

- Report title - HTML report

5)

Q

In Post build actions

- publish JUnit test result report

8/13

- Test report XMLS

target 15 target! serrefire-reports/\*.xml.

Save

Step 3: Maven. 1 & 2 steps are install package same as before

3) Select build steps - in that select invoke top-level Maven targets

4) Select Maven & in goals - install package

) Build step select execute shell

Give this command.

→ faun jor my-app-1.0-SNAPSHOT.jar

→ ed target

How to create CI/CD pipeline:-

Install pipeline plugin

Go to manage Jenkins Go to manage plugins

in "available plugins search build pipeline &

install

2. In Dashboard click + next to All

4

Select build pipeline view In the

pipeline (downstream config select the form- project that initiates the pipeline

Use case 3


Simple - Java - Maven - App.

step 1:

Simple Java clean compile :-

1) Create freestyle project simple java clean

2)

Copy the Github  simple-jour-maven-app

3) Build steps - Select Invoke top level Maven target

4)

select the maven version

5) Add Goals - clean compile

step 2:

)

9)

Simple Java code-review-

Create the freestyle project

3)

Copy the Build steps git URL select

Invoke top level maven-korye

4) Select maven version

5)

Add goals -P metrics pmd pmd checkstyle: checkstyle findbugs: findbugs.

6)

In post build action select "Record compiler warnings and static analyses results Tool select checkstyle

Add tool select find Bugs

Add tool select pom PMO Save

Step3:

Simple Java Test :-

1) Create a freestyle project.

2) Copy the git URL

Build steps - select invoke top level

4) Select maven version

10/13

5) In Goals select test

In post post build Actions

In reports

select publish HTML reports

HTML directory to archive: target

Index page

Report file HTML Report

In post-build Actions. select Publish

test result report Test Report XML target directory-reports to.....

3) to check if this has been copied to local or not check the

→ path `dlwarllibjenkins/workspace/`

→ In this, find your Jenkins project name

→ Go to the folder

عاد

→ed target

→ In this you will find the

Step:- `Jawan-maven-package`

1) (make freestyle project)

2) Copy ght 3)

Beesid steps - Invoke top level Maven project target.

Maven version

5)

Goals - test install package

6) In post build actions

6

) In build step select execute shell

7)

Add this command

cd target

Java -jar my-app-100-SNAPSHOT.jar

Use cases:-

Node.js application:-

Alt

- Create a free style project

2) In build step select execute shell

3)

Write these commands

sed -i 's/exit 0/exit 1/' /dev/null

sed -i 's/exit 1/exit 0/' /dev/null

Check the file name github

In the file check for the port number

5)

Get the raw IP address and the in js file.

Ansible:-

git clone Ansible Work Updated git URL.

3) cd Ansible blerki Updated!

cd Lampansible

3) sudo ang lamp.yml nano

In this the host

name

Remove the version specified

save exit

رد

۹)

5) scudo nano hosts

9)

Add the host name username & ip of the of lamp.yml other system. and

[ lampserver] 172.16.51.47 ansible-ssh-user = msis

o)

sudo ssh keygen - sa = bdakey

give a then felename enter enter

sudo ssh-copy-id - bdakey.pub msis@172.16.5

47 sudo ansible-playbooks lamp.yml --ask-paer -i hosts

-c Go to the Hit that connected systeem IP addres