|  |  |  |
| --- | --- | --- |
| User/group | Admin | Employee |
| Admin | Tick |  |
| Thiru |  | Tick |
| User2 |  | Tick |
|  |  |  |
|  |  |  |

How to create a role and how to manage user role ?

First we have installed the plugin Role -based Athorization Strategy

Now go to Manage Jenkins =🡺> manage and assign Role 🡺 Manage Role

Here we have 3 section that is

Globle Role

Project role

Slave Role

Here you have desire the section

Globe role 🡺 Role add 🡺 Employee 🡺Add

And give the read and view over all access🡺Apply

Project Role 🡺Role to Add 🡺 Devleper

🡺pattren🡺Dev.\*🡺Give the all permission 🡺Apply

Project Role🡺Role Add 🡺Testers

🡺pattren 🡺Test.\* 🡺 Give all permission 🡺Apply

🡺Apply and 🡺Save

Go to assign Role 🡺 Globle Role 🡺 User/Group to Add 🡺thiru🡺 Add

🡺user2 🡺Add

Project Role 🡺 user /group to add 🡺 thiru 🡺Add

🡺user2 🡺Add

|  |  |  |
| --- | --- | --- |
| User | Devleper | Tester |
| Thiru | Tick |  |
| User2 |  | Tick |
|  |  |  |

🡺Apply 🡺 Save

Now you can loggin to thiru user only can see the devleper project only

When you loggin the user2 he can see only test projects

\*#4

Q;why should I move to command line ?

A: it is easier

It is faster

It will consuming less mamery compare GUI (memory management efficinet)

#6

Home directory

Thisn tells you whre your Jenkins home directory on this system

And all your plugins or other related infornamtion get this particular path

You can change home directory yes we can

System messages

if you want display the messeage and notify the particular user with some particular message you can put the system message ,

you can use html tags and you can put an image a=or link ect also

No of build executors

The no of particular jobs are that this particular Jenkins instance should be able to run

How many jobs are running at a time

By default 2 jobs

If you want change the jobs yes we can

Lables

When create the new slave node ,Jenkins allows us to tag a slave node with a label .lables reoresented a way of naming one or more slaves….

Quiet of peri0d

quiet period is no of seconds this particular Jenkins instance should be run jobs

why this is quit period

suppose your jobs auto schedule to run a at particular time or the job can be trigger as soon as takes a bills .

if you want chanage it

SCM checkout retry count

It will try to connect to our source code git repository and it will try to get the lettest build information .

If in case build is fails what is maximum retry count our Jenkins should do

that number you can specify here

Restrict Project naming

In case you want to restric your project name here can do

Ex :

I want to make my all project name start with test ,

So that time im change the pattern and Im put hete test.\* and apply

Globle proper

ties

Globle properties as the name suggest we can define some globe properties or the globle level which can be used by all the jobs in Jenkins

de

Jenkins Location

You can change the your Jenkins url and gmail also

SSH SERVER

In case your Jenkins run job remotely and connect to some server you can port here

SHELL

By default Jenkins has a bash shell on which it excute all the shell commamds but in case you want to give some root directory or other some shell configure here

# 7

Job configuration is 6 section that is

General

Source code management

Build Trigger

Build Environment

Build

Post -build Actions

Genaral

Here you can privode a job description by tag

Source code management :

Incase you want to take the buils from any source code system like git or some other version ,.you will get the details here ..

Build Triggers

Poll Scm means that we have a source code management system and incase we have configured with any scm like git as soon as build trigger takes palce in that repository

Our job should get excuted

Build periodically

Means we can assign some epression here based in that expression our job wil be excuted at some perticular intrevel

Like a cron jobs

BUILD

If your are using linux so we can run shell commands

Post build trigger

After you build a project we will need to do something ,,ex

You want to build something other project after this particular project is completed or you want to sen out some reports notification or you want to trigger some ysemtation performance

Build Trigger Remotly

How to run the Job remotely

Go to the build Trigger and select the build tigger remotely and copy the bleow link and modify after that run the link outside the job will excuted on locally

Ex :

JENKINS\_URL/job/static-eks/build?token=TOKEN\_NAME

Here replce the JENKINS\_URL = your ip or domain name

TOKEN\_NAME= what ever proved the your number give that number her

How to chain Job Execution

First we have create the 3 or more job and that ios test1 .test2 test3

Go to the configure and builds tigger section and here change the build after other projects are built option

Here you have to desire the project name which you want to (test1)

Apply and save

After that go to post build section and here you want select the

Build other project here also give which you want to run next job I mean project name (test3)

Apply and save

Now build now for project 1 ,the project one is completed automatically other project will excuted like chian system

#8

Configure Jenkins job to trigger the execution when a change is pushed to GitHub

Go to the job configure build trigger section

🡺here select the poll SCM

🡺here I have to give the cron expression that how offen that and what intrevel to you want this particular job to check the source code repository to check for the changes

So you can give any expressiom here based on your requirement of the project

Ex :

\* \* \* \* \*

It will check every minite for any changes your repository

Apply and save

# 10

What is automated Deploment ?

Step by step

Build 🡺Deploy🡺Test🡺Release

When the build job are successful only then the deployment job will get trigger and when deployement jobs are successful only then the testing job will get trigger and so test are successful only then the release job on production

This is pipeline status

The develpers who will make changes to the application and finally commit there code to any one version control system it can be git or other and then we will have Jenkins jobs which we will called are build jobs which will either poll for the any changes in the vcs and get trigger when ever there is a change

Or we can configure it to run at some particular interval and this will comprised our build statge

The out come of the build job will be the project artifacts most probabulli war and jar that we have to deploy the servers,so the next deployment the jobs which will takes this war or jar file and deploy to the corresponding testing environment this stage are called deploy stage

And then once the deployement jobs are is completed we will have that testing jobs get trigger which will run different kind of automated test and this will comprised our test stage

And finally when everything is completed and successful we will deploy our application to the production environment and we call this release

# 12

How to send Email from Jenkins Notification

In jenkins console select the manage jenkins

🡺configure system

🡺here select the gmail section

Here you can change your requirement

🡺 SMTP server =smtp.gmail.com

🡺advanced

🡺use smtp authentication =

🡺username = your gamil id

🡺password =your gamil password

🡺use ssl port =465

If suppose you have select TLS port =993

🡺 Test configuration by sending test e-mail

Here you have give the gmail

🡺Test configuration

Here if you get any error

🡺go to your gmail account setting 🡺security🡺here select the LESS SECURE APP ACCESS is on and try it

🡺validation is pass

After that 🡺go to which job are you send notification

🡺job configuration 🡺post build 🡺select e-mail notification

🡺apply and save

🡺if any change the job automatic send the notification will get your registred gmail

#14

How to setup Delivery Pipeline in Jenkins ?

🡺go to jenkinis manage plugins 🡺manage plugins

🡺here install the Delivery pipeline 🡺with restart install

After that go to dashboard select (+)

🡺select the Delivery pipeline and give the pipeline view name 🡺ok

🡺go last line on pipelines here components 🡺add 🡺here select which you want pipeline in jobs 🡺select instial wich job are make pipeline 🡺Apply and save

Here you want different changes

View full screen it show different pipeline view

Edit view :there are some more option is there

Number of pipeline instances per pipeline :

Here select any number what it will do is we are able to view just the 3 runs incase you want see more then 3 run on a single screen you can select here only ..

Enable start of new pipeline build:

Allow starting a new pipeline run from the delivery pipeline view.

* Select the option and apply and save
* Now you get your pipeline name after get one button 🡺select the it automatic job will excute

Enable rebuild ;

When you have to run some particular job again some pipeline and do not want to trigger new pipeline this will be help

Here show total build time also so amany option will there edit view

# 15

How to setup BUILD PIPELINE in Jenkins ?

🡺first we have install Build pipeline plugin

🡺go to Jenkins console dash bord and here click the (+)

Pipeline view name =buildpipeline

🡺ok

🡺select initial job which you want and apply and save

No Of Displayed Builds

How may jobs displayed on your screen

And select pipeline top of the name it will go direct console output of that particular jobs ,and also see the bottom of the file there is block button ,it show console output only

If any error is coming go to configure and find the console output syntax here you have select new window ..

🡺here one more option re-run button is there that it show work is to run again buils here only

Here add new step and history and delete and manage also there ..

# 16

BLUE OCEAN

What is bule ocean

Blue ocean is new user experience for Jenkins and provides an interactive view for Jenkins pipeline and jobs .

To install blue ocean plugin

🡺

Q . what is master slave in Jenkins ?

If you are working on multiple project, you may need to run on multiple jobs on each project. Some project need to run on some nodes, and in this process we need to configure slaves .

Jenkins slave connect to the Jenkins master using the java network launch protocol.

🡺The Jenkins master acts to schedule the jobs, assign slaves, and send builds to slave to execute the jobs.

🡺It will also monitor the slave state (offline and online ) and get it back the build result responds from slaves and to display builds results on the console output .

The workload of buildings jobs is delegated to multiple slaves.