

## Source Code Management

### 1) Github

L> Add Github Repo URL

L> Credentials

L> Give it Repo is Private In Learning case Repo is Public But in Company Repo is Private then Give Credentials

L> Branch to build

L> If they have multiple Branch then you need to Give Branch name when the Jenkins create code to Automate Project.

L> It has only one Branch main / master then Remove all in Branch to build

L> Triggers

L> Build periodically

L> Build every time which time we give in. Ex. (\* \* \* \* \*) every 1 min

L> Github hook trigger for GIT SCM use In Public Jenkins Server In Company with all use.

L> Poll SCM

when Github code commit on Github then the SCM Trigger and Build code.

Jenkins default location windows

C:\ProgramData\Jenkins\Jenkins\workspace

Date

Page

↳ Build Steps

- 1) Execute windows batch Command
- 2) Execute shell.
  - 1) windows
  - 2) linux.

In Command Section Give all Script and file name.

In <sup>main</sup> Branch in Github location  
↳ cird/pythoncode/index.html text.html

then Give  
python cird/pythoncode/test.py.

check file  
location in  
log file

↳ Parameterised

Give String value when code is  
Build then the Jenkins will ask  
the string value.





Date .....

Page .....

↳ Email notification

↳ Gmail SMTP (Simple mail transfer Protocol)

↳ Manage Jenkins → System → E-mail

↳ SMTP Server, SSL

↳ smtp.gmail.com (it's here private the key)

Default user email suffix

↳ ...@gmail.com

Gmail Setup

→ Advanced

User Name

↳ Gmail ID

Password

↳ Generate Password

↳ `auth user oauth2`

SMTP Port

↳ Default or ~~334~~ 587

Jenkins → Post Build Action

↳ Email notification

# Ansible



Date.....

Page.....

## Ansible

↳ Use to Control All Server.

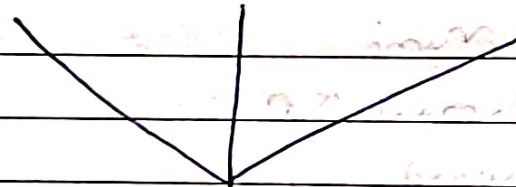
Ex. Server1 Server2 Server3

We need to install Apache all 3 server  
then go 1 by 1 to all server and  
install.

time consuming, error etc.

Use Ansible.

Server1 Server2 Server3



Local System Module

Ansible

Inventory

How it works.

- Ansible
- 1) Inventory
  - 2) Playbook
  - 3) Module





Date.....

Page.....

### 3) Module

-> Small Program to do a task.

- 1) Install ~~Apache~~, Nginx, Start server, create a file etc.

User need to write YAML file.

YAML file easy to Read, write, understand

### 2) Playbook

To install web server on remote

### Yaml file structure

name: Install Apache

hosts: Remote Server

become: true

task:

- name: Install Apache2

apt:

name: apache2

status: present

add multiple module in playbook.

1) make directory

2) install apache

3) start webserver.



maven is a build automation tool used primarily for Java Project.

create a simple space

add Project Git

Sample maven Project from Git

manage -> tools -> maven installation

↳ add name

add version

Project -> Configuration

↳ Build steps

↳ Invoke top-level maven

maven version

↳ Select maven name.

(Goal)

↳ if Build

{ -B -DskipTests clean package  
If need then take from Github file  
or copy online.

Test

mvn Test





Date.....

Page.....

Execute Shell

echo "Deployment Step"

jar

java -jar /file location

Report using Graph.

1) Post-build Action

↳ Publish junit test result report

1) Test report xmls

↳ Give path of xmls file

Don't chunky nothing

2) Archive the artifacts

↳ ~~Give~~ L files

↳ target / .jar

↳ Advanced

↳ Excludes

↳ Archive artifacts only is build



Date.....

Page.....

CICD in Jenkins

1) Create Pipeline Project

↳ Pipeline -> Script (Huck sample script)