**Jenkins Notes :**

<https://www.youtube.com/watch?v=89yWXXIOisk&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG>

https://web.microsoftstream.com/video/3ee65373-9cd0-4597-8f9d-93a347c5bb4a

**Why Jenkins :**

Jenkins – an open source automation server which enables developers around the world to reliably build, test, and deploy their software.

**1.Installing Jenkins** : download Jenkins.jar place it into a folder

Open cmd type command as :

D:\Java\_Work>java -jar jenkins.war

Open localhost <https://localhost:8080>

Enterpasword : dfe9694c959f4dd3a25be351815ace3a

Install required plugin

Create account and start

**2 . Setup Jenkins on Tomcat :**

We need 1. Tomcat 5 and above

2. Java 7 and above

Step1 : copy Jenkins.war inside D:\TomcatWebapp\webapps folder

Step 2 : open cmd and cd tomcat/bin or open Cygwin app to run linux cammandls

Run command : User@DESKTOP-2K7F00B /TomcatWebapp/bin

$ chmod +x \*.sh

Step 3 : start tomcat

Command : $ ./startup.sh

Step 4 : verify if tomcat started – <https://localhost:8080>

<https://localhost:8080/jenkins>

**To start standalone Jenkins run command as : D:\Java\_Work>java -jar jenkins.war—httpPort=9090**

**3 . How to change home directory of Jenkins**

Start Jenkins

Step 1 :Go to : manage -> configure

Step 2 : create a new folde(which will be new home dir)

Step 3 : copy all data from old to new dir

Step 4 : change env variable(of new folder)

Step 5: restart Jenkins

Got to the new dir path and run command

User@DESKTOP-2K7F00B /jenkins\_home

$ java -jar jenkins.war

**4. How to use CLI :**

Step 1 : Open jekins

Step 2 :Go to : manage -> configure global security-> enable global security

Step 3 : url/cli : http://localhost:8080/cli

Step 4 download cli.jar

Step 5 : test the jar

**5 . how to create new user**

Step 1 create new user

Step 2: configure new user

Step 3 : create and manage user role

Role strategy plugin

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1. How to create a basic JOB in Jenkins

2. Basic job configurations 2. How to run the Job remotely 4. How to chain Job Execution Step 1 : Jenkins - New Item - add details Step 2 : How to trigger the job remotely Step 3 : How to chain job executions

**11 Automated Deployment**

<tomcat-users xmlns="http://tomcat.apache.org/xml"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://tomcat.apache.org/xml tomcat-users.xsd"

version="1.0">

<role rolename="admin"/>

<role rolename="admin-gui"/>

<role rolename="admin-script"/>

<role rolename="manager-gui"/>

<role rolename="manager-script"/>

<role rolename="manager-jmx"/>

<user username="tomcat1" password="tomcat1" roles="admin-gui,admin-script"/>

<user username="tomcat" password="tomcat" roles="manager-gui,manager-script,manager-jmx" />

</tomcat-users>

**13 Jenkins pipeline**

Jenkins Pipeline (or simply "Pipeline") is a suite of plugins which supports implementing and integrating continuous delivery pipelines into Jenkins. ... The definition of a Jenkins Pipeline is typically written into a text file (called a Jenkinsfile ) which in turn is checked into a project's source control repository.

Build ＞ Deploy ＞ Test ＞ Release

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Jenkinsfile : Pipeline as a code

Step 1 : Start Jenkins

Step 2 : Install Pipeline Plugin

Step 3 : Create a new job

Step4 : Create or get Jenkinsfile in Pipeline section

Step 5 : Run and check the output

**14 . How to get Jenkinsfile from Git SCM**

Step 1 : Create a new job or use existing job (type : Pipeline)

Step 2 : Create a repository or GitHub

Step 3 : Add Jenkinsfile in the repo

Step 4 : Under Jenkins job ＞ Pipeline section ＞ Select Definition Pipeline script from SCM

Step 5 : Add repo and jenkinsfile location in the job under Pipeline section

Step 6 : Save & Run

# Jenkins Pipeline | How to clone a git repo using Jenkinsfile |