

Jenkins Setup Documentation

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Outline

- Prerequisites
- Setup
- Start/Stop/Restart
- Manage Jenkins
- Manage Plugins

PreRequisites

- Ubuntu
 - Distributor ID: Ubuntu
 - Description: Ubuntu 16.04.3 LTS
 - Release: 16.04
 - Codename: xenial
- Java OpenSDK
 - openjdk version "1.8.0_131"
 - OpenJDK Runtime Environment(build 1.8.0_131-8u131-b11-2ubuntu1.16.04.3-b11)
 - OpenJDK 64-Bit Server VM (build 25.131-b11, mixed mode)

Setup

- Installation

```
$wget -q -O - https://pkg.jenkins.io/debian/jenkins-ci.org.key | sudo apt-key add –  
$sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ >  
/etc/apt/sources.list.d/jenkins.list'  
$sudo apt-get update  
$sudo apt-get install jenkins
```

- Upgrade

```
$sudo apt-get update  
$sudo apt-get install –y jenkins
```

Setup

- Create 'system' account for 'jenkins'
 - Add 'system' user
\$ sudo adduser system
 - Add user = 'jenkins' to group = 'system'
\$sudo usermod -a -G system jenkins

Setup

- Jenkins will be launched as a daemon up on start. See /etc/init.d/jenkins for more details.
- The 'jenkins' user is created to run this service.
- Log file will be placed in /var/log/jenkins/jenkins.log. Check this file if you are troubleshooting Jenkins.
- /etc/default/jenkins will capture configuration parameters for the launch like e.g JENKINS_HOME
 - \$sudo vim /etc/default/jenkins
 - JENKINS_HOME=/home/system/jenkins_workspace
 - Save file

Reference from:

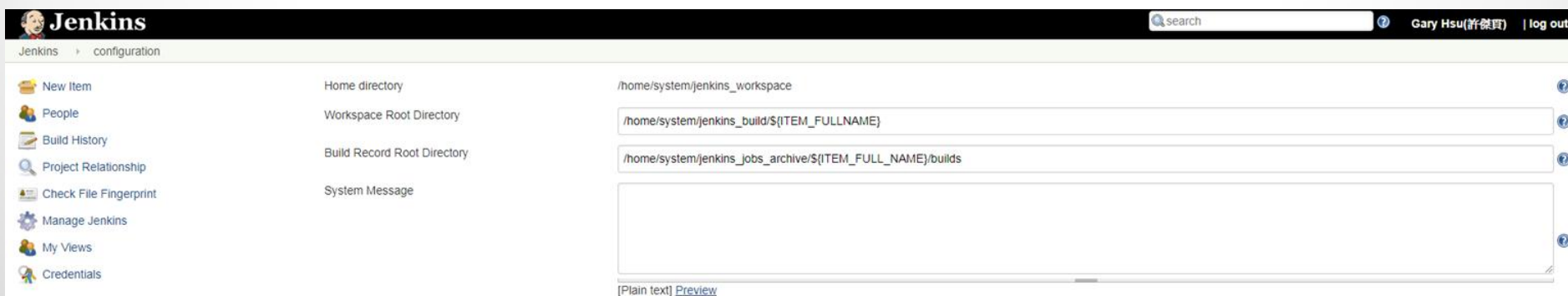
<https://wiki.jenkins.io/display/JENKINS/Installing+Jenkins+on+Ubuntu>

Start/Stop/Restart

- Start
 `$sudo service jenkins start`
- Stop
 `$sudo service jenkins stop`
- Restart
 `$sudo service jenkins restart`

Manage Jenkins – Workspace Setting

- Manage Jenkins -> Config System
 - **Home directory** (jenkins setting)
/home/system/jenkins_workspace
 - **Workspace Root Directory** (Job building step workspace)
/home/system/jenkins_build/\${ITEM_FULLNAME}
 - **Build Record Root Directory** (Job build result)
/home/system/jenkins_jobs_archive/\${ITEM_FULL_NAME}/builds



Manage Jenkins – Global Properties

- Add global variable for job build useage

Global properties

☒ Environment variables

List of variables

Name	<input type="text" value="ANDROID_HOME"/>	
Value	<input type="text" value="/opt/android-sdk"/>	<input type="button" value="Delete"/>
Name	<input type="text" value="ANDROID_NDK_HOME"/>	
Value	<input type="text" value="/opt/android-ndk-r10e"/>	<input type="button" value="Delete"/>
Name	<input type="text" value="DEFAULT_RECIPIENTS"/>	<input type="button" value="Delete"/>
Value	<input type="text" value=""/>	
Name	<input type="text" value="JENKINS_SCRIPT_HOME"/>	
Value	<input type="text" value="/home/system/JenkinsScriptWarehouse/jenkins_script"/>	<input type="button" value="Delete"/>

Manage Jenkins – Email Setting

- System Admin e-mail address: admin address setting as following

Jenkins Location	
Jenkins URL	<input type="text" value="http:// :8080/"/>
System Admin e-mail address	<input type="text" value="_Jenkins@ .com"/>

Manage Jenkins – Email Setting

- SMTP server : Your SMTP Server
- DEFAULT_RECIPIENTS: Team member

Extended E-mail Notification

SMTP server	<input type="text" value="com.tw"/>	
Default user E-mail suffix	<input type="text"/>	
<input type="checkbox"/> Use SMTP Authentication		
Use SSL	<input type="checkbox"/>	
SMTP port	<input type="text"/>	
Charset	<input type="text" value="UTF-8"/>	
Default Content Type	<input type="text" value="Plain Text (text/plain)"/>	
<input type="checkbox"/> Use List-ID Email Header		
<input type="checkbox"/> Add 'Precedence: bulk' Email Header		
Default Recipients	<input type="text" value="\$DEFAULT_RECIPIENTS"/>	
Reply To List	<input type="text"/>	
Emergency reroute	<input type="text"/>	
Excluded Recipients	<input type="text"/>	
Default Subject	<input type="text" value="\$PROJECT_NAME - Build # \$BUILD_NUMBER - \$BUILD_STATUS!"/>	
Maximum Attachment Size	<input type="text"/>	
Default Content	<input type="text" value="\$PROJECT_NAME - Build # \$BUILD_NUMBER - \$BUILD_STATUS:"/> Check console output at \$BUILD_URL to view the results.	

☒ Enable security

☐ Disable remember me

Access Control

Security Realm

- ☐ Delegate to servlet container
- ☐ Jenkins' own user database
- ☒ LDAP

Server

Server

ldap.

root DN

DC=, ,DC=

☐ Allow blank rootDN

User search base

OU=, ,OU=, ,OU=, ,OU=

User search filter

sAMAccountName={0}

Group search base

OU=, ,OU=, ,OU=

Group search filter

Group membership

- ☐ Parse user attribute for list of LDAP groups
- ☒ Search for LDAP groups containing user

Group membership filter

Manager DN

CN=, CN=, DC=, DC=

Manager Password

.....

Display Name LDAP attribute

displayName

Email Address LDAP attribute

mail

Manage Jenkins - Test login with LDAP

- Manage Jenkins -> Config Global Security
- Enable security -> Access Control -> LDAP

Test LDAP settings

Use your LDAP username and password to test your LDAP settings before saving. This will validate your settings and prevent you from being accidentally locked out.

It is a good practice to verify a few other user accounts as well. You can use an empty password if you don't know their password to validate that user lookup is working.

If you are using LDAP groups, test a user account that is a member of at least one LDAP group to validate reverse group lookup.

User:

Password:

Manage Jenkins - Test login with LDAP

- Manage Jenkins -> Config Global Security
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Login

✓ Authentication: successful

✓ User ID: gary_hsu

User Dn: CN=, OU=, DC=, DC=, OU=, OU=, OU=, OU=, OU=

✓ User Display Name: Gary Hsu()

✓ User email: @.com

✓ LDAP Group membership:

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Lookup

✓ User lookup: successful

✓ User groups consistent (login and lookup)

Test LDAP settings

Manage Plugins

- Manage Jenkins -> ManagePlugins
 - Gradle Plugin
 - LDAP Plugin
 - Git Client Plugin
 - Environment Injector Plugin

Reference

- Jenkins Official: <https://jenkins.io/>
- StackOverflow