# INSTALL KOHA, DSPACE & CONTENT MANAGEMENT SYSTEM IN ONE SERVER

**After installation of Ubuntu 12.04 LTS server, ensure that Internet is working properly.**

**Note: It is advisable to install Koha and DSpace through SSH. It will help you a lot in installation.**

**Please follow the procedure:**

**First run this command at server:**

**sudo apt-get install openssh-server**

**Note: After installation of ssh server, just leave the server and connect the server through ssh client from any other windows system.**

**To connect, anyone can use Putty or SSH Client.**

**(Download the software from Internet http://www.filewatcher.com/m/SSHSecureShellClient-3.2.9.exe.5517312-0.html and install in windows.)**

**Now, open SSH client and enter the IP address and Port (by default port: 22)**

**Enter user and password. It will connect to the server.**

**Now Install Koha and DSpace.**

# Koha installation on Ubuntu 12.04 on Server:

**Note: Text in blue colors are the commands which have to be executed in order to install Koha.**

Open a terminal and apply following commands,

**sudo su**
Enter the password:

## Add Koha package repository

**wget -O- http://debian.koha-community.org/koha/gpg.asc | sudo apt-key add –**

**echo deb http://debian.koha-community.org/koha squeeze main | sudo tee /etc/apt/sources.list.d/koha.list**

**sudo apt-get update**

**sudo apt-get install koha-common**

### Initial Configuration
**Create a new file (type the following command in terminal with root privilege)**

**vi /etc/koha/koha-sites.conf**

Add the following lines and save.

(Note: when file is open, to insert these lines, first press **INSERT button or I** then paste these in the file. Now, press **SHIFT + :** and then press **wq. The file will be saved and it will automatically be closed)**

```
DOMAIN=".yourdomain.org
INTRAPORT="8000"
INTRAPREFIX=""
INTRASUFFIX="-intra"
DEFAULTSQL=""
OPACPORT="8001"
OPACPREFIX=""
OPACSUFFIX=""
ZEBRA_MARC_FORMAT="marc21"
ZEBRA_LANGUAGE="en"
```

## Adding ports

Open following file and add ports **(type the following command in terminal with root privilege)**

**sudo vi /etc/apache2/ports.conf**

Add two ports for Koha

(Note: When the file is open, to insert these lines, first press **INSERT button or I** then paste these in the file. Now, press **SHIFT + :** and then press **wq. The file will be saved and it will automatically be closed)**

Listen 8000
Listen 8001

Apply following commands,

**sudo a2enmod rewrite**

## Configuration of UTF-8 in MySQL and Apache

Enable UTF-8 at MySQL
Open a Terminal and type following command,

**sudo su**
**vi /etc/mysql/my.cnf** **(type the following command in terminal with root privilege)**

(Note: When the file is open, to insert these lines, first press **INSERT button or I** then paste these in the file. Now, press **SHIFT + :** and then press **wq. The file will be saved and it will automatically be closed)**

[Under the Basic settings section, add the following,]

*# UTF-8 Defaults for Koha*
*init-connect='SET NAMES utf8'*
*character-set-server=utf8*
*collation-server=utf8_general_ci*

**vi /etc/apache2/conf.d/charset**

[Add the following two lines in] **(type the following command in terminal with root privilege)**

(Note: When the file is open, to insert these lines, first press **INSERT button or I** then paste these in the file. Now, press **SHIFT + :** and then press **wq. The file will be saved and it will automatically be closed)**

*AddCharset UTF-8 .utf8*
*AddDefaultCharset UTF-8*

Save the file and close the editor.

# Instance creation

**sudo apt-get install mysql-server**

[Put a password for MySQL Root USER]

Apply following commands,

```
sudo apt-get clean
sudo koha-create --create-db library
```

## Ubuntu MySQL security Tweak

```
sudo su
mysql -u root -p
```

[Enter the MySQL Root password when it ask]
Execute the following commands,

```
USE mysql;
SELECT host,user FROM user;
DELETE FROM user WHERE user=''; SELECT host,user FROM user;
FLUSH PRIVILEGES;
QUIT
```

## Configuring Apache

**Execute the following commands in a terminal.**

```
sudo a2enmod rewrite
sudo a2enmod deflate
sudo a2ensite library
sudo /etc/init.d/apache2 restart
```

## Start web installation of Koha

The username to log in with will be **koha_library** and the password will be near the end of /etc/koha/sites/***library***/koha-conf.xml
Apply the following command to see the koha login password,

```
sudo xmlstarlet sel -t -v 'yazgfs/config/pass' /etc/koha/sites/library/koha-conf.xml
```

Open following link,

http://127.0.1.1:8000

## Zebra rebuild command

```
sudo su
koha-rebuild-zebra -v -f library
```

# Installing DSpace 4.1 on Ubuntu 12.04 LTS

**Note: Text in blue colors are the commands which have to be execute in order to install DSpace-4.1.**

**Installation of prerequisite applications**

Open Applications > **Accessories** > **Terminal** and execute following commands.

sudo apt-get install openjdk-7-jdk

sudo apt-get install postgresql

sudo apt-get install tomcat7

sudo apt-get install ant maven

**Create the database user**

sudo su postgres

createuser -U postgres -d -A -P dspace

**Enter password for new role:** [*Enter a password e.g. dspace*]

**Shall the new role be allowed to create more new roles? (y/n)** n
[*Enter n and press enter button*]

Type **exit**

**Allow the database user (dspace) to connect to the database**
[If the following command not open, check the postgresql version number and apply in the command]

sudo vi /etc/postgresql/9.1/main/pg_hba.conf
**(type the above command in terminal with root privilege)**

(Note: When the file is open, to insert these lines, first press **INSERT button or I** then paste these in the file. Now, press **SHIFT + :** and then press **wq. The file will be saved and it will automatically be closed)**

Add this line to the configuration file at the end:

local all dspace md5

save and close the file

Restart PostgreSQL :

sudo su

/etc/init.d/postgresql restart

**Create Dspace user**

sudo useradd -m dspace

sudo passwd dspace [enter a password for the new user dspace]

sudo mkdir /dspace

sudo chown dspace /dspace

**Create the PostgreSQL 'dspace' database**

sudo -u dspace createdb -U dspace -E UNICODE dspace

**Configure Tomcat**
[If the following command not open, check the tomcat version number and apply in the command]

sudo vi /etc/tomcat7/server.xml

**(type the above command in terminal with root privilege)**

(Note: When the file is open, to insert these lines, first press **INSERT button or I** then paste these in the file. Now, press **SHIFT + :** and then press **wq. The file will be saved and it will automatically be closed)**

Insert the following chunk of text just above the closing </Host>

```
<!-- Define a new context path for all DSpace web apps -->
<Context path="/xmlui" docBase="/dspace/webapps/xmlui" allowLinking="true"/>
<Context path="/sword" docBase="/dspace/webapps/sword" allowLinking="true"/>
<Context path="/oai" docBase="/dspace/webapps/oai" allowLinking="true"/>
<Context path="/jspui" docBase="/dspace/webapps/jspui" allowLinking="true"/>
<Context path="/lni" docBase="/dspace/webapps/lni" allowLinking="true"/>
<Context path="/solr" docBase="/dspace/webapps/solr" allowLinking="true"/>
```

save and close  the file.

**Create Dspace directory**

sudo mkdir /build

sudo chmod -R 777 /build

cd /build

**Download Dsapce to /build directory**

You can check latest version of Dspace from here.
Run the command mentioned below at command prompt. (Ensure that Internet is working).

```
wget http://sourceforge.net/projects/dspace/files/DSpace%20Stable/4.1/dspace-4.1-src-release.tar.gz
```

**Extracting Dspace package**

```
tar -zxf dspace-4.1-src-release.tar.gz

cd /build/dspace-4.1-src-release

mvn -fn package

cd dspace/target/dspace-4.1-build

sudo ant fresh_install
```

**Fix Tomcat permissions, and restart the Tomcat server**

```
sudo chown tomcat7:tomcat7 /dspace -R
```

Restart Tomcat

```
/etc/init.d/tomcat7 restart
```

**Make an initial administrator account (an e-person) in DSpace:**

```
/dspace/bin/dspace create-administrator
```

It will ask to enter email address for user login. Enter an email address (e.g. dspace@localhost).
Enter First name and surename (e.g. dspace)
Enter a password.

**Open Dspace in your browser**
You can load either one Dspace interface in a browser.
http://localhost:8080/xmlui
http://localhost:8080/jspui

# Installation of Wordpress/Joomla in Ubuntu 12.04 LTS Server:

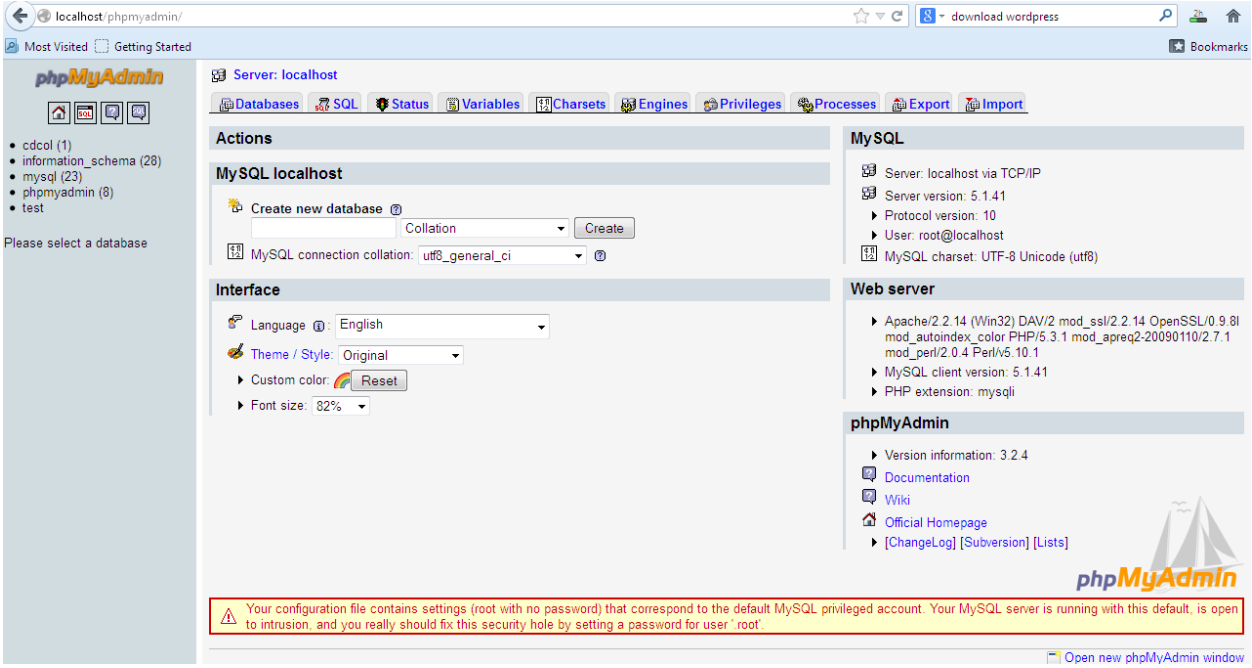
First install phpmyadmin:

apt-get install phpmyadmin

(It will install and configure the same with MySQL. Please enter the root password when it asks during configuration).

Now, open the browser through different system and type http://IP_adress_of_server/phpmyadmin

(It will open the phpmyadmin interface. Now create the database for wordpress/joomla. Please follow the screenshot given below).




Enter the database name which you want to create (For ex: library) then click on create button. It will create the database and give you the message.

Now, paste the wordpress/joomla folder in /var/www folder.

Now, open the browser and type http://IP_address_of_server/name_of_wordpress_folder (press enter)

It will open the installation page, where provide the necessary detail to install wordpress/joomla.

D. P. Tripathi

NIT Rourkela

References:

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2. http://linuxhalwa.blogspot.in/2014/04/installing-dspace-4x-on-ubuntu-1402-lts.html
3. https://wiki.duraspace.org/display/DSDOC4x/Installing+DSpace