Apache Installation

Step 1: Install Apache

```
sudo apt-get update
sudo apt-get install apache2
```

Step 2: Check your Web Server

```
sudo systemctl status apache2
```

Step 3: Manage the Apache Process

To stop your web server, you can type:

```
sudo systemctl stop apache2
```

To start the web server when it is stopped, type:

```
sudo systemctl start apache2
```

To stop and then start the service again, type:

```
sudo systemctl restart apache2
```

If you are simply making configuration changes, Apache can often reload without dropping connections. To do this, you can use this command:

```
sudo systemctl reload apache2
```

By default, Apache is configured to start automatically when the server boots. If this is not what you want, you can disable this behavior by typing:

```
sudo systemctl disable apache2
```

To re-enable the service to start up at boot, you can type:

```
sudo systemctl enable apache2
```

GLASSFISH INSTALLATION

Step One: Install Oracle Java 8.
  1.Make source list up-to-date:
```
sudo apt-get update
sudo apt-get upgrade
```

  2.After installing, confirm the current Java is Oracle version:
```
java -version

prjlab@prjlab-HP-202-G1-MT:~$ java -version
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)
```

Step Two: Install GlassFish.

  1.Download the latest stable version of GlassFish version 4.1.1:

```
wget http://download.java.net/glassfish/4.1.1/release/glassfish-4.1.1.zip
```

  2.Extract the GlassFish archive to the document root directory on your server:

```
unzip glassfish-4.1.1.zip
```

  3.Start the GlassFish server by using the following command as follows:

```
glassfish4/bin/asadmin start-domain
```

Step Three: Accessing GlassFish.

The default GlassFish Server's port is 8080 and administration server's port is 4848 with the administration user name as admin with no password. We can visit http://ip-address:8080/ to check the homepage of GlassFish Server and http://ip-address:4848/ to get the admin login page in our web browser and complete the required the steps to finish the installation. If you are using a firewall, please open port 4848 and 8080 to enable access to the control panel.

References:

1.https://www.digitalocean.com/community/tutorials/how-to-install-glassfish-4-0-on-ubuntu-12-04-3
2.http://idroot.net/linux/install-glassfish-ubuntu-16-04/

Install XAMPP

Step 1: Download the installation package

The first step is to download the XAMPP package for Linux from the of cial Apache Friends website:
https://www.apachefriends.org/index.html

Click on the XAMPP for Linux option after which you will be prompted to Run the package or Save it to your system. We recommend downloading the package by clicking the Save File option. After which, your downloaded le will be saved to the Downloads folder by default.

Step 2: Make the installation package
executable Add and Manage User Accounts in
We will install the package through the Ubuntu command line, The Terminal. In order to open the Terminal, either use the Dash or the Ctrl+Alt+T shortcut. After the Terminal is open, you need to move to your Downloads folder to access the file.
Move to the Downloads folder by using the following command:

$ cd /home/[username]/Downloads

The installation package you downloaded needs to be made executable before it can be used further. Run the following command for this purpose:

$ chmod 755 [package name]

Example:

$ chmod 755 xampp-linux-x64-7.2.10-0-
installer.run

Now the install package is in an executable form.

Step 3: Con rm execute permission
It is important to verify if the package can be executed by the current user. The execute permission can be checked through the following command:

$ ls -l [package name]

Example:

$ ls -l xampp-linux-x64-7.2.10-0-installer.run

The -rwxr output shows that the le can be executed by the

user whose name is also mentioned in the output.

Step 4: Launch the Setup Wizard

As a privileged root user, run the following command in order to launch the graphical setup wizard.

$ sudo ./[package name]

Example:

sudo ./xampp-linux-7.2.10-0-installer.run

This will launch the Setup wizard that will direct you with the rest of the installation procedure.

**Step 5: Work through the graphical
setup wizard**

Now that the Setup Wizard for XAMPP by Bitnami is launched as follows, click the Next button to start the installation process:
The following dialog lets you choose XAMPP components that you want to install.
Keep the default settings intact and then click Next . The following dialog will inform you about the location where XAMPP will be installed.
Click Next to continue. The following dialog gives you the option of installing sponsored applications such as Drupal, Joomla, and WordPress etc. You can avoid Bitnami to install these applications by unchecking the 'Learn more about Bitnami for XAMPP' checkbox.
Click the Next to begin the installation process:
When the installation is complete, click the Next button. The following dialog indicates the completion of the installation process.
If you do not want to Launch XAMPP at this moment, uncheck the Launch XAMPP option. Also, click Finish to close the Setup dialog.

**Step 6: Launch XAMPP through the
Terminal**

In order to launch XAMPP through your Ubuntu Terminal, enter the following command as root:

$ sudo /opt/lampp/lampp start

This output shows that XAMPP is started and already running. Please note that you need to manually start XAMPP each time you restart your system.
If you get the following output after starting XAMPP, it means that Net Tools are not installed on your system:

In order to install Net Tools, run the following command as root:

$ sudo apt install net-tools

After the installation of Net Tools, you will be successfully able to launch and use XAMPP.

Step 7: Verify Installation

After you have installed XAMPP on your Ubuntu system, it is good practice to verify the installation. To do so, enter the following URL in your FireFox browser:

http://localhost

The following webpage verifies that XAMPP is successfully installed and running on your system:

You can also verify the installation of phpMyAdmin in a similar manner by entering the following URL in your browser:

http://localhost/phpmyadmin

JBOSS INSTALLATION

Step 1: Java installation and verification
  First check that you have JDK installed in your system or not.To check your java installation and version you can run following command :
        $ java -version

  The command will show you the java version which is installed in your system. If you get error message '-bash: java: command not found',   that means java is not installed. For the latest Jboss server we can take the JDK version above then 6. Here we are going to install java version 7.

    $ sudo apt-get update
    $ sudo apt-get install openjdk-7-jdk

Step 2: Download JBoss and install

To download the Jboss issue the following command :

  $ wget http://download.jboss.org/jbossas/7.1/jboss-as-7.1.1.Final/jboss-as-7.1.1.Final.zip

Or you can download it from JBoss site http://www.jboss.org/jbossas/downloads/ page.

Install JBoss :

After successfully downloaded the Jboss now unzip the downloaded file in appropriate directory.To unzip the downloaded Jboss file issue the following command :

  $ sudo unzip jboss-as-7.1.1.Final.zip -d /usr/share/

This command will install the JBoss application server to the directory /usr/share/. Alternatively you can choose any directory location to install JBoss.

Step 3: Create the appropriate user for the Jboss After successfully installation of JBoss application server, we need to create a user with appropriate privilege. It is a not a good idea to use JBoss with a root user, so we create a new user.

  $ sudo adduser javaserver

Here we created a new user called javaserver. You can choose any name for new user.

Change ownership of the installation directory:

Now we have new user so we will give this user to ownership of the JBoss installation directory. To change the ownership of the JBoss installation directory issue follwing command :

$ sudo chown -fR jboss.jboss /usr/share/jboss-as-7.1.1.Final/

Switch user:

Now switch user to newly created user javaserver:

   $ su javaserver

Add new user for the JBoss management console :

The final step is to create a JBoss management user, which is necessary to access JBoss Management console.

   $ cd /usr/share/jboss-as-7.1.1.Final/bin
   $ ./add-user.sh

After issuing above command you will see the following messages :

   What type of user do you wish to add?
   a) Management User (mgmt-users.properties)
   b) Application User (application-users.properties)
   (a): a

We select a, next you should see the following message:

   Enter the details of the new user to add.
   Realm (ManagementRealm) :
   Username : javaserver
   Password :
   Re-enter Password :
   * hit enter for Realm to use default, then provide a username and password

So above we have new Jboss management user, where username is javaserver and the password server. The password should not be same as username.

Step 4: Start the JBoss server and verify that the server has started properly

A standalone instance of the Jboss application server can be start using the following command :

   $ ./standalone.sh -Djboss.bind.address=0.0.0.0 -Djboss.bind.address.management=0.0.0.0&

By default Jboss server is bind to localhost. Nobody can access the localhost using remote access. So we gave the bind.address to 0.0.0.0 and management to 0.0.0.0, to access url over the remote access on Internet.

Test the JBoss installation : To test that JBoss is installed successfully or not just open your browser and put the following url in address bar :

   http://localhost:9990

Step 5: Stop the JBoss server To stop the instance of the JBoss server issue the follwoing command.

   $ ./jboss-cli.sh --connect command=:shutdown

Tomcat Installation

Install tomcat packages:

        $ sudo apt-get install tomcat7

To start/stop tomcat:

        $ sudo service tomcat7 start

        $ sudo service tomcat7 stop

        $ sudo service tomcat7 restart