

មជ្ឈមណ្ឌល បណ្តុះបណ្តាលប្រព័ន្ធព័ត៌មានវិទ្យា  
Centre for Information Systems Training

**SNA2010**  
**Class: A**  
**Group: I**

# Assignment Ubuntu Server 8.10

## Members:

1. Mr. CHHAY Try
2. Mr. ROEURM Channa
3. Mr. UN Chamroeun
4. Mr. Lor Les

5. Mr. Chhay Lyhorng
6. Ms. BAN Sokline
7. Ms. You Eangna
8. Ms. Sary Sophirum

Assignment DNS and Web server on Ubuntu server 8.10

## Agenda:

1. Install and configure Master DNS
    - a. Definition of DNS
    - b. How DNS works
    - c. Install and configure DNS
  2. Configure web application with apache and DNS
    - a. Typo3(<http://typo3.ubuntu.com>)
    - b. Wiki (<http://wiki.ubuntu.com>)
1. Install and configure Master DNS
    - a. Definition of DNS
      - Domain Name system is distribution database that used to map hostname to IP address and map IP address to Hostname.
    - b. How DNS works
      - Client request [www.cistrain.org](http://www.cistrain.org) → DNS's cist → forward [www.cistrain.org](http://www.cistrain.org)=192.168.1.100 → client.
      - Client request [www.google.com](http://www.google.com) → DNS's cist → check in cache dns (if it is not in cache dns) → check in zones (if it is not) → forward to Root Domain (check .com, if it has)→ forward dns's cist → dns 's cist → forward to DNS (.com)  
→ forward to DNS's cist → forward to DNS([google.com](http://google.com)) → forward to DNS's cist→ forward to request [www.google.com](http://www.google.com) to DNS [google.com](http://google.com) → forward [www.google.com](http://www.google.com)=64.233.189.104 → DNS's cist → [www.google.com](http://www.google.com)=64.233.189.104 store in Cache DNS and forward to client.
    - c. Install and configure DNS
- + Assign IP address in Ubuntu server 8.10

Log as root

#vim /etc/network/interfaces

```
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth3
iface eth3 inet static
    address 172.16.1.240
    netmask 255.255.254.0
    gateway 172.16.0.1
```

Save file :x! → Enter

## Restart service network by using command

```
#!/etc/init.d/networking restart
```

Before you install bind9 and configure DNS, you should edit file sources.list

```
#vim /etc/apt/sources.list
```

Note: you should release all signal before the sentences that start with deb ....

```
deb cdrom:[Ubuntu-Server 8.10 _Intrepid Ibex_ - Release i386 (20081028.1)]/ intrepid main restricted
#
deb cdrom:[Ubuntu-Server 8.10 _Intrepid Ibex_ - Release i386 (20081028.1)]/ intrepid main restricted
# See http://www.ubuntu.com/kernel/upgrade to upgrade to
# newer versions of the distribution.
#
deb http://us.archive.ubuntu.com/ubuntu/ intrepid main restricted
deb-src http://us.archive.ubuntu.com/ubuntu/ intrepid main restricted
#
# # Major bug fix updates produced after the final release of the
# # distribution.
deb http://us.archive.ubuntu.com/ubuntu/ intrepid-updates main restricted
deb-src http://us.archive.ubuntu.com/ubuntu/ intrepid-updates main restricted
#
# # N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
# # team. Also, please note that software in universe WILL NOT receive any
# # review or updates from the Ubuntu security team.
deb http://us.archive.ubuntu.com/ubuntu/ intrepid universe
deb-src http://us.archive.ubuntu.com/ubuntu/ intrepid universe
deb http://us.archive.ubuntu.com/ubuntu/ intrepid-updates universe
```

## + Update your Ubuntu server

```
#sudo apt-get update
```

```
root@Uchanna:~# sudo apt-get update
Ign cdrom://Ubuntu-Server 8.10 _Intrepid Ibex_ - Release i386 (20081028.1) intrepid/main Translation-en_US
Ign cdrom://Ubuntu-Server 8.10 _Intrepid Ibex_ - Release i386 (20081028.1) intrepid/restricted Translation-en_US
54% [Connecting to us.archive.ubuntu.com (91.189.88.30)] [Connecting to archive[
1019.949529] SysRq : HELP : loglevel0-8 reBoot Crashdump tErm Full kIll saK aLl
cpus showMem Nice powerOff showPc show-all-timers(Q) unRaw Sync showTasks Unmoun
t show-blocked-tasks
54% [Connecting to us.archive.ubuntu.com (91.189.88.30)] [Connecting to archive_
```

## + Download package bind9 to configure DNS in ubuntu server by using command

```
# sudo apt-get install bind9
```

```
root@classA:/# sudo apt-get install bind9
```

## + Configure DNS file

```
#vim /etc/bind/named.conf.local
```

Edit like below:

```
//
// Do any local configuration here
//
// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";
zone "ubuntu.com" in {
    type master;
    file "master/ubuntu.com.db";
};
zone "16.172.in-addr.arpa" in {
    type master;
    file "master/rev.172.16.in-addr.arpa";
};

-- INSERT --
```

Note You can whatever you want.

Change Directory to /var/cache/bind by using this command

```
#cd /var/cache/bind/
```

+ Create Directory master in /var/cache/bind by using the command

```
# mkdir master
```

+ Create file ubuntu.com.db in /var/cache/bind/master by using command

```
#vim master/ubuntu.com.db
```

```
$TTL 172700
ubuntu.com.    IN SOA classA.ubuntu.com. hostmaster.ubuntu.com. (
                20091218
                1D
                2H
                1W
                3H
                )
ubuntu.com.    IN NS classA.ubuntu.com.
classA         IN A 172.16.1.240
typo3          CNAME classA
wiki           CNAME classA

-- INSERT --
```

Save file by type :x! → Enter

- + Create file rev.172.16.in-addr.arpa in /var/cache/bind/master by using command:  
#vim master/rev.172.16.in-addr.arpa

```

$TTL 172700
16.172.in-addr.arpa. IN SOA classA.ubuntu.com. hostname.ubuntu.com. (
                           20091218
                           1D
                           2H
                           1W
                           3H
                           )
16.172.in-addr.arpa. IN NS  classA.ubuntu.com.
240.1                 IN PTR classA.ubuntu.com.

~
~
~
~
~
~
~
-- INSERT --

```

Save file by type :x! → Enter

- + Edit in hostfile by using command:

#vim /etc/hosts

Edit: 172.16.1.240 ubuntu.com classA

```

127.0.0.1 localhost
127.0.1.1 classA.cist.lan classA
172.16.1.240 ubuntu.com classA

# The following lines are desirable for IPv6 capable hosts
::1 localhost ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
ff02::3 ip6-allhosts

"/etc/hosts" 11L, 304C

```

Close and save → :x! → Enter



Edit file resolv.conf like below by using command

```
#vim /etc/resolv.conf
```

```
domain ubuntu.com
nameserver 172.16.1.240
```

```
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
-- INSERT --
```

Save and close

```
:x! → Enter
```

Restart service DNS by using command below:

```
#/etc/init.d/bind9 restart
```

+ Test DNS

```
# nslookup 172.16.1.240
```

```
# host 172.16.1.240
```

```
# host classA.ubuntu.com
```

```
# dig ubuntu.com
```

```
root@classA:/var/cache/bind# nslookup 172.16.1.240
Server:         172.16.1.240
Address:        172.16.1.240#53

240.1.16.172.in-addr.arpa      name = classA.ubuntu.com.

root@classA:/var/cache/bind# host 172.16.1.240
240.1.16.172.in-addr.arpa domain name pointer classA.ubuntu.com.
root@classA:/var/cache/bind# host classA.ubuntu.com
classA.ubuntu.com has address 172.16.1.240
root@classA:/var/cache/bind# dig ubuntu.com

; <<>> DiG 9.5.0-P2 <<>> ubuntu.com
;; global options: printcmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 47248
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 0

;; QUESTION SECTION:
;ubuntu.com.                IN      A

;; AUTHORITY SECTION:
ubuntu.com.                10800  IN     SOA    classA.ubuntu.com. hostmaster.ub
untu.com. 20091218 86400 7200 604800 10800

;; Query time: 15 msec
;; SERVER: 172.16.1.240#53(172.16.1.240)
;; WHEN: Sat Dec 19 07:28:36 2009
;; MSG SIZE rcvd: 88

root@classA:/var/cache/bind#
```

*The end Master DNS*

## Configure web application with apache and DNS

### a. Typo3 with DNS master

**TYPO3 is a content management system** - a system that allows clients to update, edit, modify, add, and remove content from their website written in PHP. It is released under the GNU General Public License. It can run on Apache or IIS on top of Linux, Microsoft Windows, OS/2 or Mac OS X.

Requirements :

- Packages: apache2m, libapache2-mod-php5, php5-cli, php5-common, php5-cgi, mysql-common, mysqlserver, mysql-server-5.0, phpmyadmin.
- Ubuntu server runs with master DNS.
- Computer can access internet because all package install by download from internet (high speed is better) and window xp
- Sofeware: putty and win SCP

Before you install Typo3, you make sure that you are full fill with these requirement above.

Now start:

+ update your ubuntu server by using command:

```
#sudo apt-get update
```

```
root@Uchanna:~# sudo apt-get update
Ign cdrom://Ubuntu-Server 8.10 _Intrepid Ibex_ - Release i386 (20081028.1) intre
pid/main Translation-en_US
Ign cdrom://Ubuntu-Server 8.10 _Intrepid Ibex_ - Release i386 (20081028.1) intre
pid/restricted Translation-en_US
54% [Connecting to us.archive.ubuntu.com (91.189.88.30)] [Connecting to archive[
1019.949529] SysRq : HELP : loglevel0-8 reBoot Crashdump tErm Full kIll saK aLI
cpus showMem Nice powerOff showPc show-all-timers(Q) unRaw Sync showTasks Unmoun
t show-blocked-tasks
54% [Connecting to us.archive.ubuntu.com (91.189.88.30)] [Connecting to archive_
```

+ Install these packages by using command below:

```
#sudo apt-get -y install apache2 libapache2-mod-php5 php5-cli php5-common php5-cgi
mysql-common mysqlserver mysql-server-5.0 phpmyadmin
```

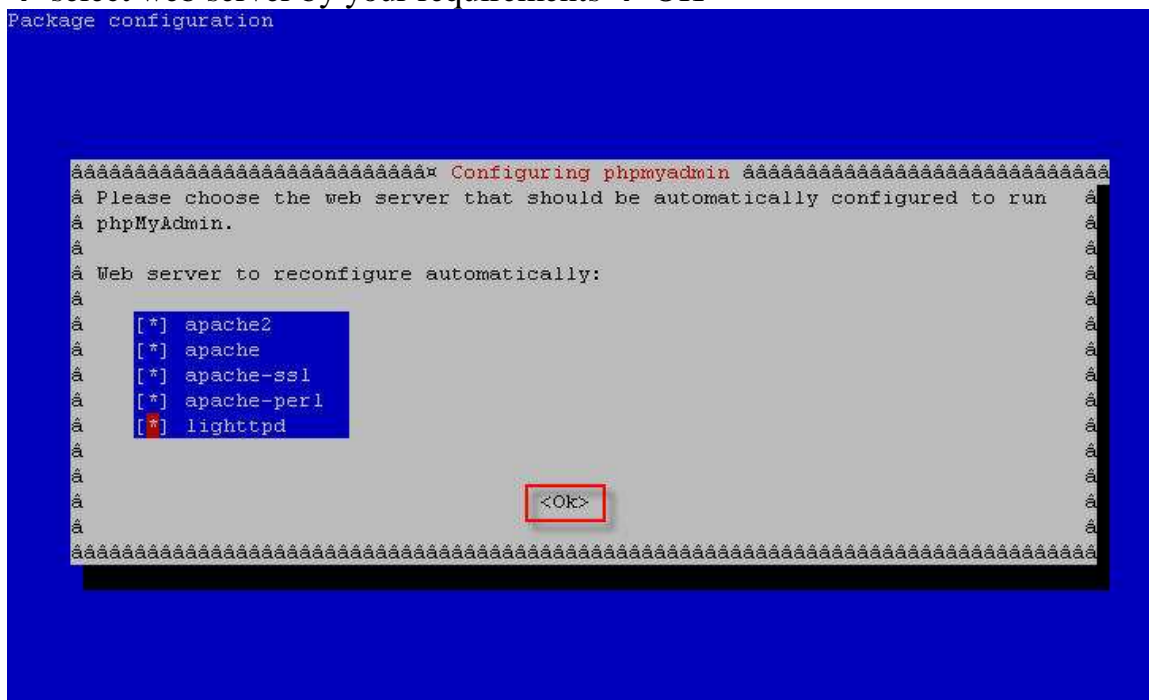
```
root@Uchanna:~# sudo apt-get -y install apache2 libapache2-mod-php5 php5-cli php
5-common php5-cgi mysql-common mysql-server mysql-server-5.0 phpmyadmin
```

put password mysql

```
Package configuration
~~~~~
Configuring mysql-server-5.0
While not mandatory, it is highly recommended that you set a password for the MySQL
administrative "root" user.
If that field is left blank, the password will not be changed.
New password for the MySQL "root" user:
*****
<Ok>
```



→ select web server by your requirements → OK



+ Change the default password in mysql  
 #mysqladmin -u root -p password P@ssw0rd

+ create a database for typo3:  
 #mysqladmin -pP@ssw0rd create Typo3

```
root@classA:/var/cache/bind# mysqladmin -u root -p password P@ssw0rd
Enter password:
root@classA:/var/cache/bind# mysqladmin -pP@ssw0rd create Typo3
```



As you know you shouldn't access the database always with root so we create a new user:

Start mysql:

```
#mysql -u root -p
```

and set up the new user:

```
mysql> grant all privileges on Typo3.* to group1@localhost identified by 'typo3';
```

Quit mysql safely:

```
mysql> flush privileges;
```

```
mysql> quit
```

```
root@classA:/var/cache/bind# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 31
Server version: 5.0.67-0ubuntu6 (Ubuntu)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> grant all privileges on Typo3.* to group1@localhost identified by 'typo3';
Query OK, 0 rows affected (0.03 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.01 sec)

mysql> quit
Bye
root@classA:/var/cache/bind#
```

Restart apache2 with:

```
#sudo /etc/init.d/apache2 restart
```

```
root@classA:/var/cache/bind# /etc/init.d/apache2 restart
* Restarting web server apache2
... waiting .
root@classA:/var/cache/bind#
```

Change to this directory to /var/www by using command:

```
#cd /var/www/
```

```
root@Uchanna:~# cd /var/www/
root@Uchanna:/var/www#
```

+ download package typo3\_src-4.1.2.tar.gz by using command:

```
#wget http://kent.dl.sourceforge.net/sourceforge/typo3/typo3_src-4.1.2.tar.gz
```

```
root@Uchanna:~# cd /var/www/
root@Uchanna:/var/www# wget http://kent.dl.sourceforge.net/sourceforge/typo3/
typo3_src-4.1.2.tar.gz
--2009-12-18 10:20:30-- http://kent.dl.sourceforge.net/sourceforge/typo3/typo3_src-4.1.2.tar.gz
Resolving kent.dl.sourceforge.net... 212.219.56.167
Connecting to kent.dl.sourceforge.net[212.219.56.167]:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://downloads.sourceforge.net/sourceforge/typo3/typo3_src-4.1.2.tar.gz?download&failedmirror=kent.dl.sourceforge.net [following]
--2009-12-18 10:20:31-- http://downloads.sourceforge.net/sourceforge/typo3/typo3_src-4.1.2.tar.gz?download&failedmirror=kent.dl.sourceforge.net
Resolving downloads.sourceforge.net... 216.34.181.59
Connecting to downloads.sourceforge.net[216.34.181.59]:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://ncu.dl.sourceforge.net/project/typo3/OldFiles/typo3_src-4.1.2.tar.gz [following]
--2009-12-18 10:20:32-- http://ncu.dl.sourceforge.net/project/typo3/OldFiles/typo3_src-4.1.2.tar.gz
Resolving ncu.dl.sourceforge.net... 140.115.17.45
Connecting to ncu.dl.sourceforge.net[140.115.17.45]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 7767554 (7.4M) [application/x-gzip]
Saving to: `typo3_src-4.1.2.tar.gz'

100% [=====>] 7,767,554 34.9K/s in 4m 38s

2009-12-18 10:25:11 (27.3 KB/s) - `typo3_src-4.1.2.tar.gz' saved [7767554/7767554]

root@Uchanna:/var/www#
```

+ Extract file zib typo3-4.1.2.tar.gz in /var/www

```
#tar xzf typo3_src-4.1.2.tar.gz
```

```
root@classA:/var/www# tar xvf typo3_src-4.1.2.tar.gz
```

+Download package dummy-4.1.2.tar.gz by using command:

```
#wget http://heanet.dl.sourceforge.net/sourceforge/typo3/dummy-4.1.2.tar.gz
```

+ Extract file zib dummy-4.1.2.tar.gz bu using command:

```
#tar xzf dummy-4.1.2.tar.gz
```

```
root@Uchanna:/var/cache/bind# cd /var/www/
root@Uchanna:/var/www# wget http://heanet.dl.sourceforge.net/sourceforge/typo3/dummy-4.1.2.tar.gz
--2009-12-18 10:21:42-- http://heanet.dl.sourceforge.net/sourceforge/typo3/dummy-4.1.2.tar.gz
Resolving heanet.dl.sourceforge.net... 193.1.193.66
Connecting to heanet.dl.sourceforge.net[193.1.193.66]:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://downloads.sourceforge.net/sourceforge/typo3/dummy-4.1.2.tar.gz?download&failedmirror=heanet.dl.sourceforge.net [following]
--2009-12-18 10:21:43-- http://downloads.sourceforge.net/sourceforge/typo3/dummy-4.1.2.tar.gz?download&failedmirror=heanet.dl.sourceforge.net
Resolving downloads.sourceforge.net... 216.34.181.59
Connecting to downloads.sourceforge.net[216.34.181.59]:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://ncu.dl.sourceforge.net/project/typo3/OldFiles/dummy-4.1.2.tar.gz [following]
--2009-12-18 10:21:46-- http://ncu.dl.sourceforge.net/project/typo3/OldFiles/dummy-4.1.2.tar.gz
Resolving ncu.dl.sourceforge.net... 140.115.17.45
Connecting to ncu.dl.sourceforge.net[140.115.17.45]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 9424 (9.2K) [application/x-gzip]
Saving to: `dummy-4.1.2.tar.gz'

100% [=====>] 9,424 42.7K/s in 0.2s

2009-12-18 10:21:46 (42.7 KB/s) - `dummy-4.1.2.tar.gz' saved [9424/9424]

root@Uchanna:/var/www# tar xzf dummy-4.1.2.tar.gz
root@Uchanna:/var/www#
```

+ Rename file dummy4-1.2 to cms by using command:

```
#mv dummy-4.1.2 cms
```

+ Change ownership by using command:

```
chown -R -v www-data /var/www/typo3_src-4.1.2
```

```
root@Uchanna:/var/www/cms# chown -R -v www-data /var/www/typo3_src-4.1.2
```

chown -R -v www-data /var/www/cms

```
root@Uchanna:/var/www/cms# chown -R -v www-data /var/www/cms/
changed ownership of `/var/www/cms/.htaccess' to www-data
changed ownership of `/var/www/cms/README.txt' to www-data
changed ownership of `/var/www/cms/typo3_src' to www-data
changed ownership of `/var/www/cms/typo3temp' to www-data
changed ownership of `/var/www/cms/RELEASE_NOTES.txt' to www-data
changed ownership of `/var/www/cms/uploads/pics' to www-data
changed ownership of `/var/www/cms/uploads/media' to www-data
changed ownership of `/var/www/cms/uploads/index.html' to www-data
changed ownership of `/var/www/cms/uploads/uf' to www-data
changed ownership of `/var/www/cms/uploads' to www-data
changed ownership of `/var/www/cms/typo3' to www-data
changed ownership of `/var/www/cms/fileadmin/_temp_/.htaccess' to www-data
changed ownership of `/var/www/cms/fileadmin/_temp_/index.html' to www-data
changed ownership of `/var/www/cms/fileadmin/_temp_' to www-data
changed ownership of `/var/www/cms/fileadmin/user_upload/_temp_' to www-data
changed ownership of `/var/www/cms/fileadmin/user_upload' to www-data
changed ownership of `/var/www/cms/fileadmin' to www-data
changed ownership of `/var/www/cms/index.php' to www-data
changed ownership of `/var/www/cms/typo3conf/ext' to www-data
changed ownership of `/var/www/cms/typo3conf/extTables.php' to www-data
changed ownership of `/var/www/cms/typo3conf/localconf.php' to www-data
changed ownership of `/var/www/cms/typo3conf/l10n' to www-data
changed ownership of `/var/www/cms/typo3conf/index.html' to www-data
changed ownership of `/var/www/cms/typo3conf' to www-data
changed ownership of `/var/www/cms/INSTALL.txt' to www-data
changed ownership of `/var/www/cms/clear.gif' to www-data
changed ownership of `/var/www/cms/t3lib' to www-data
changed ownership of `/var/www/cms/' to www-data
root@Uchanna:/var/www/cms#
```

+ Create file ENABLE\_INTSALL\_TOOL in /var/www/cms/typo3conf by using command:

```
#!/var/www/cms/#touch typo3conf/ENABLE_INTSALL_TOOL
```

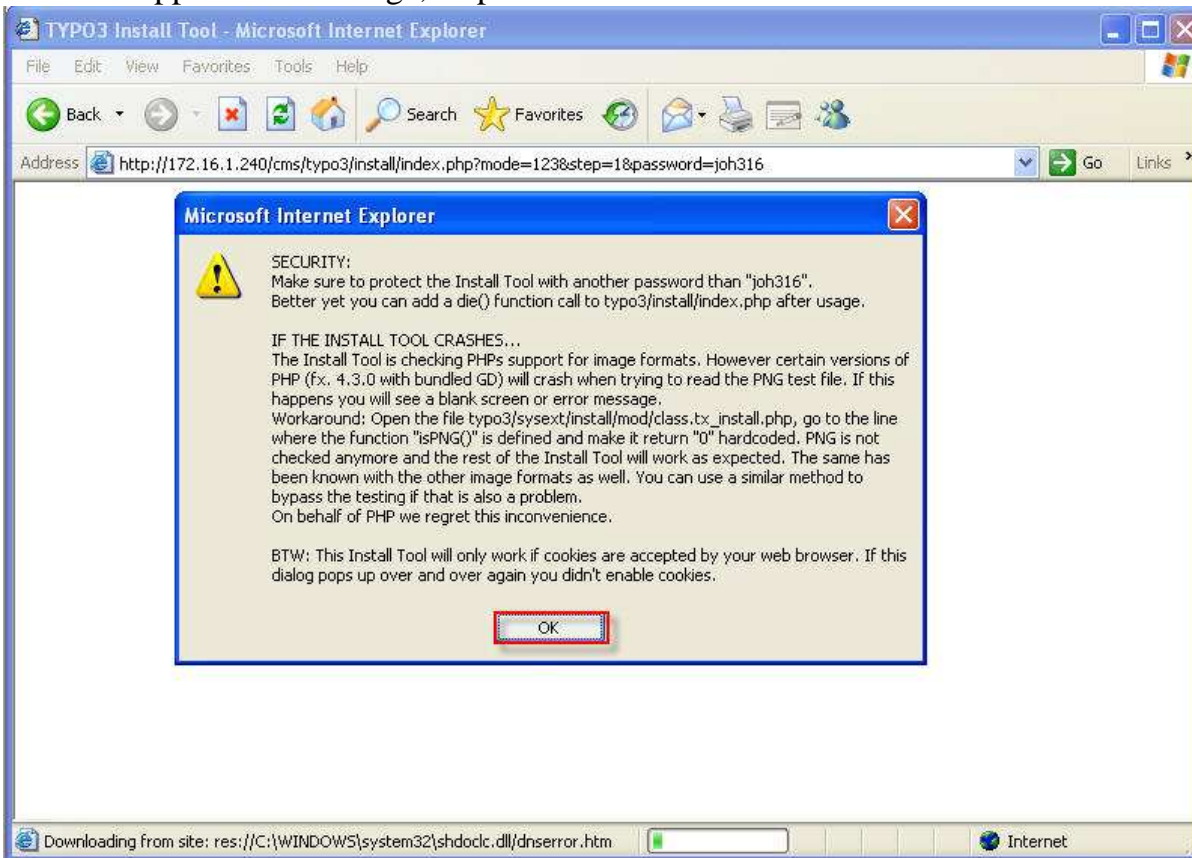
```
root@classA:/var/www/cms# touch typo3conf/ENABLE_INSTALL_TOOL
root@classA:/var/www/cms#
```



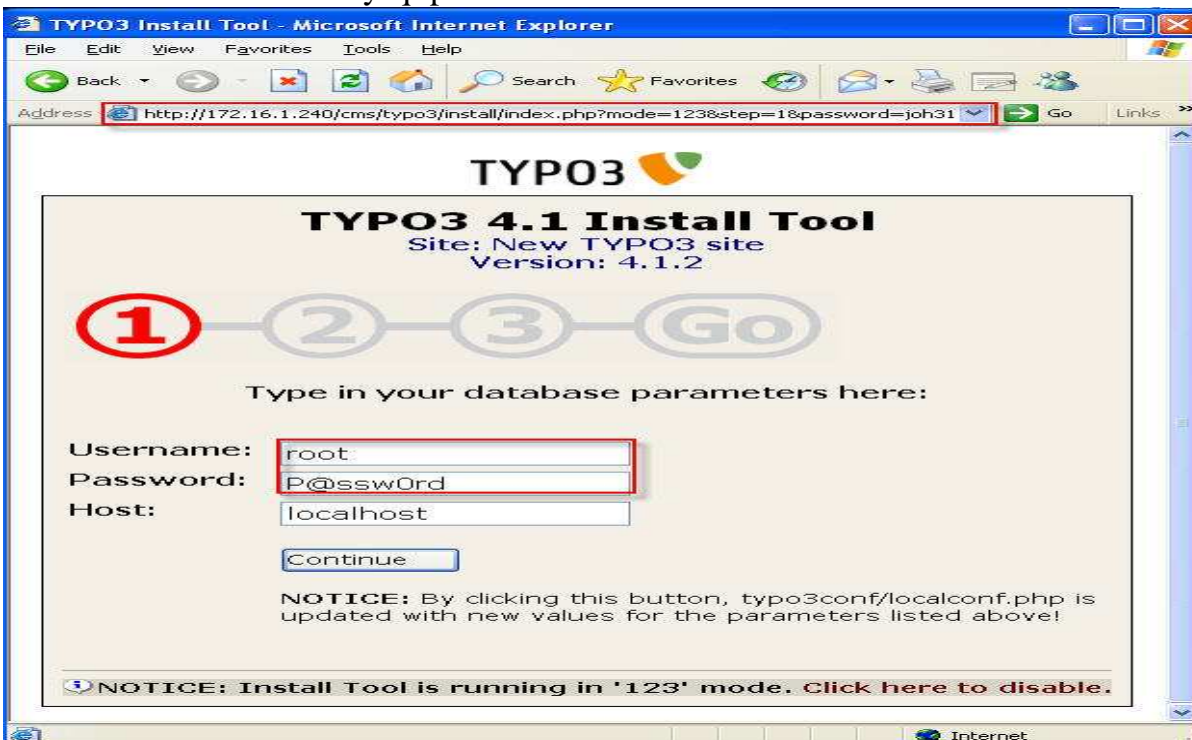
+ Access web to configure typo3 by using window xp

<http://localhost/cms/typo3/install.php>

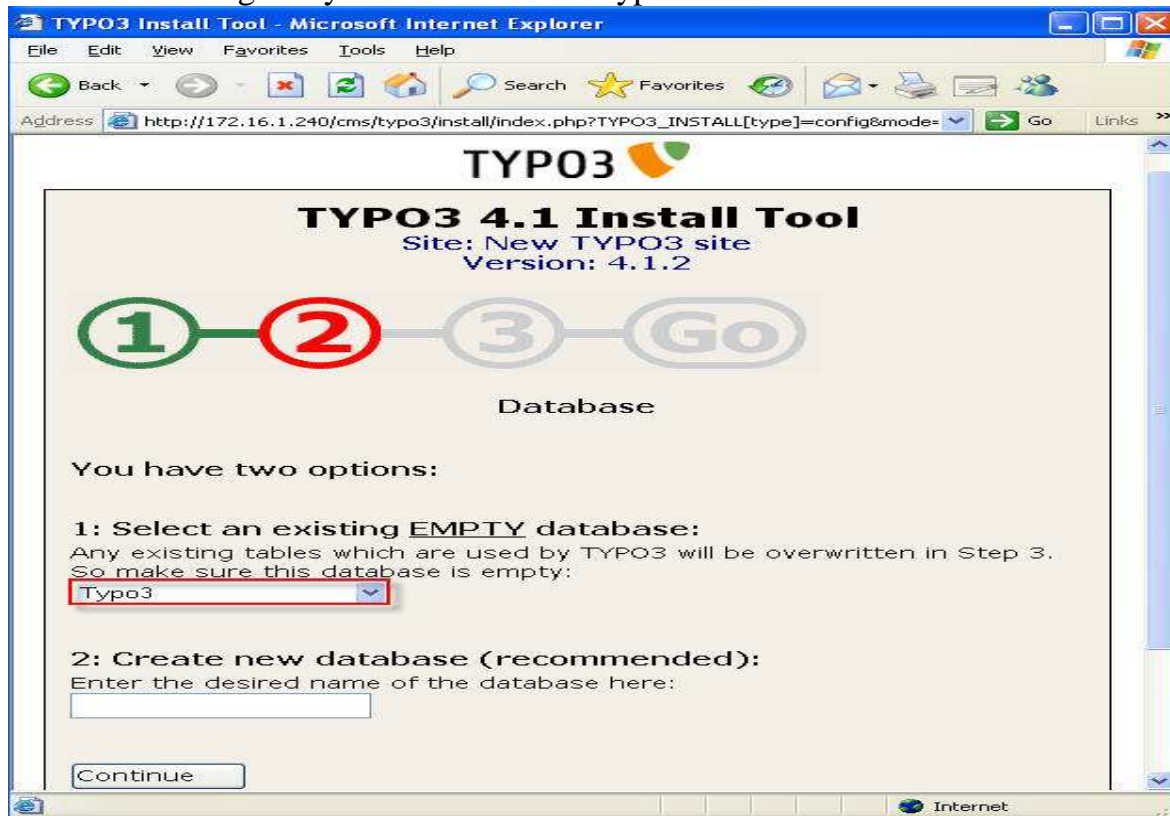
It will be appear this message, so press OK



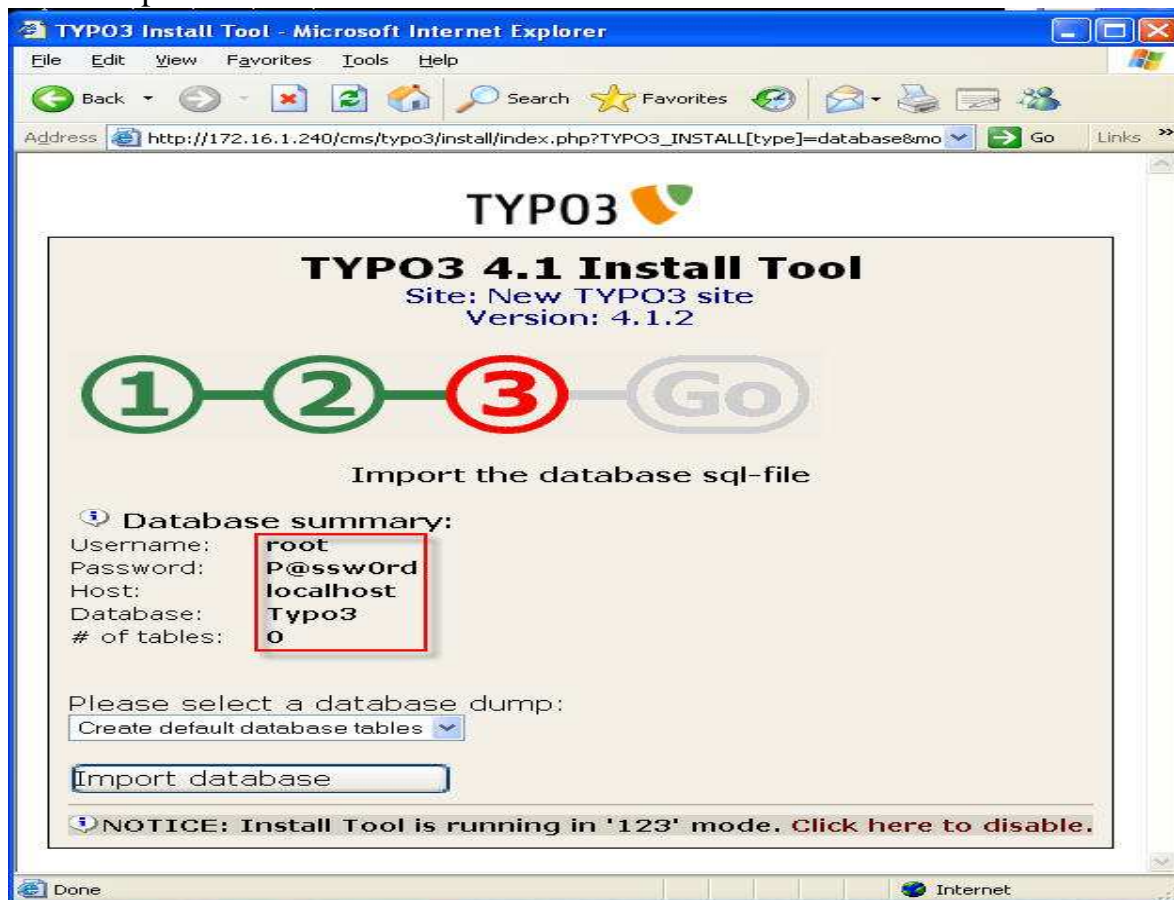
Put user name root and mysql password → continue



## Select an existing Emty database: choose Typo3



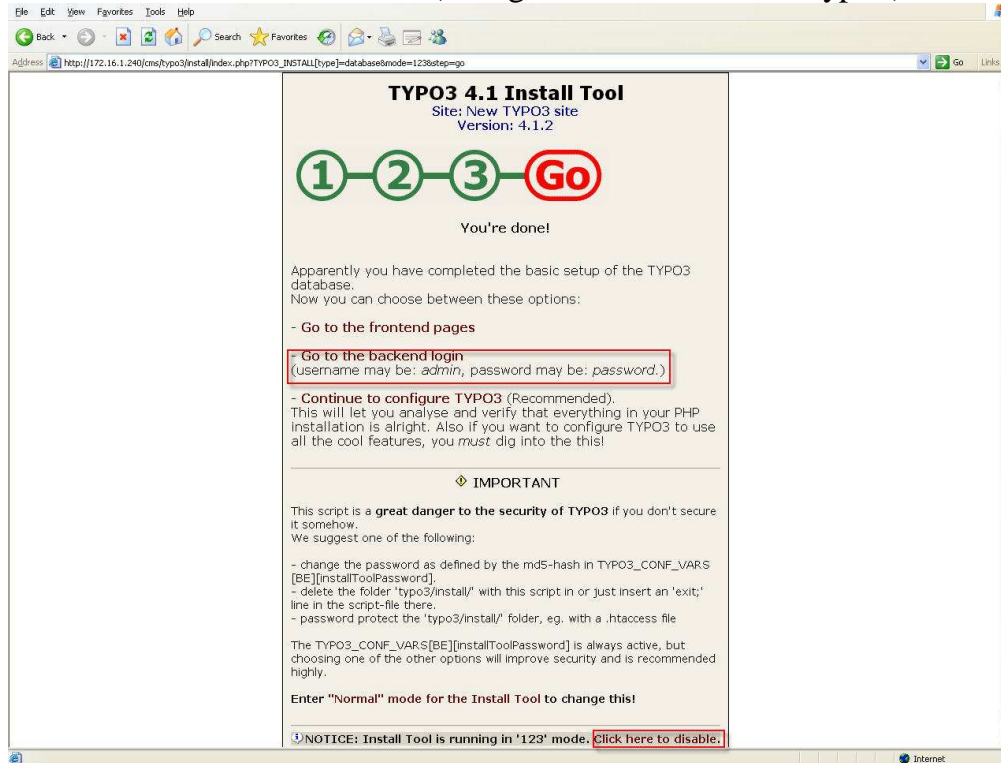
## Select Import database





In this step, you remember user and password(default user name admin and password: password)

→ select click here to disable (change information in the typo3).

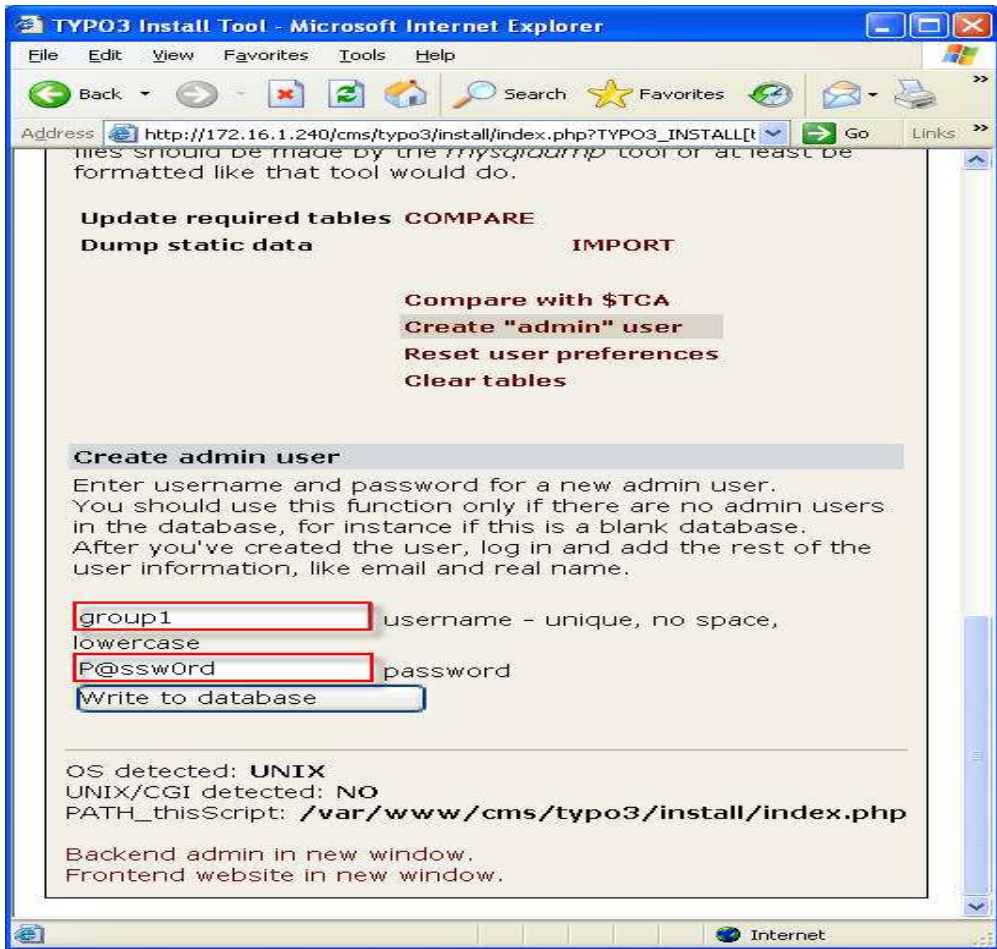


+ Create useradmin

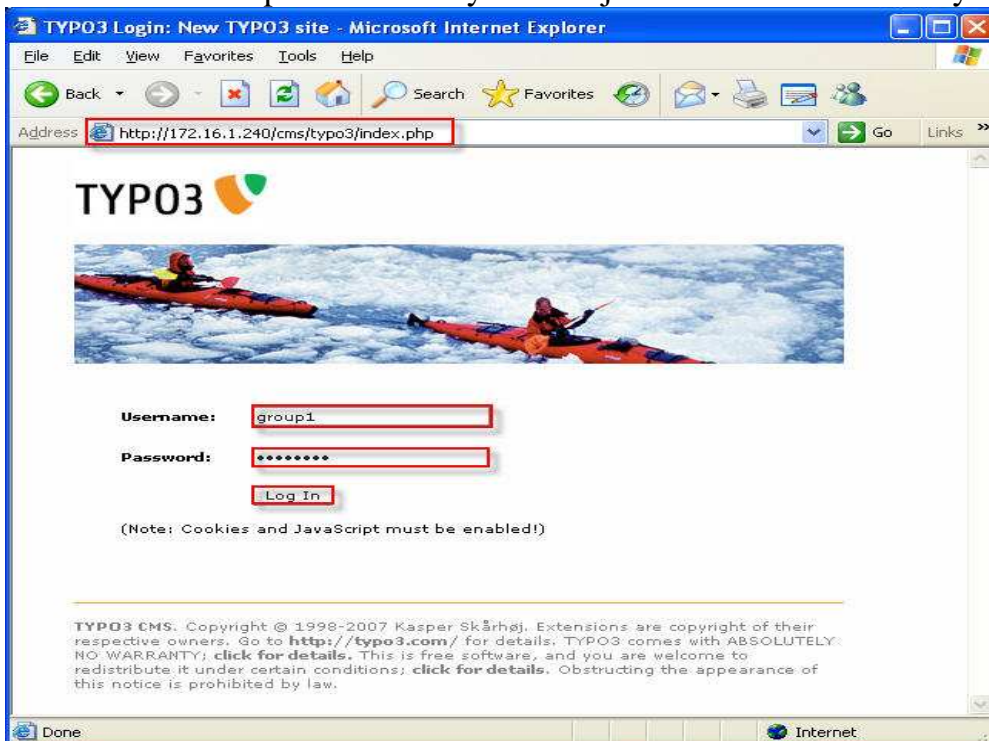
→ select Database Analyser



Username: group1  
Password: P@ssw0rd



Put username and password that you have just created in Data Analyser



New TYPO3 site [TYPO3 4.1.2] - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop

Address http://172.16.1.240/cms/typo3/alt\_main.php

# TYPO3

## TYPO3 4.1.2 Web Content Management System

**TYPO3** TYPO3 CMS ver. 4.1.2. Copyright © 1998-2007 Kasper Skårhøj. Extensions are copyright of their respective owners. Go to <http://typo3.com/> for details. TYPO3 comes with ABSOLUTELY NO WARRANTY; click for details. This is free software, and you are welcome to redistribute it under certain conditions; click for details. Obstructing the appearance of this notice is prohibited by law.

**Important notice!**

- The password of your Install Tool is still using the default value "joh316"
- The backend user "admin" with password "password" is still existing
- The Install Tool is enabled. Make sure to delete the file `"/var/www/cms/typo3conf/ENABLE_INSTALL_TOOL"` when you have finished setting up TYPO3
- The Reference Index table is empty which is likely to be the case because you just upgraded your TYPO3 source. Please go to `Tools>DB Check` and update the reference index.

It is highly recommended that you change this immediately.

This is a brief description of the available modules:

- Web**
  - Page content**  
This module allows you to create and edit webpages, view page hit statistics, manage different languages and columns of content per page and access special page contents like guesbooks and shopping items.
  - View page**  
Shows the look of the current page and lets you edit the content directly.
  - List of database-records**  
The Web>List module provides low level access to records appearing on a page.
  - Page related information, eg. hit statistics, change log, record counts**  
The Web>Info module is focused on statistic information about pages. This includes statistics of pagehits and a changelog allowing browsing of page history changes. An overview of the number of records on each page as well as page settings presented in a classic tree structure is provided.
  - Page editing permissions**  
Setting of page permissions is vital for controlling backend user access to pages. You can assign a user and a group as owners of a page and set access permissions for each.
  - Advanced functions**  
This module contains general export and import functions in addition to specialised wizards enabling page sorting and batch creating of pages.
  - Page and content versioning and workspace management for pages.**  
The Web>Versioning module provides access to versioning features for the page tree.
  - Template tools**  
Here you manage the TypoScript templates which are in charge of the look of your website on the frontend. The module provides specialized features like an object
- Page**
- View**
- List**
- Info**
- Access**
- Functions**
- Versioning**
- Template**

Admin functions:  
Clear cache in typo3conf/  
Clear FE cache  
Logout [group1]



## Create Virtual Host in Ubuntu server 8.10

Edit file ports.conf in /etc/apache2 by using this command

```
nano /etc/apache2/ports.conf
```

Change NameVirtualHost \*:80 to NameVirtualHost 172.16.1.240:80

```

GNU nano 2.0.7      File: /etc/apache2/ports.conf      Modified
# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default
NameVirtualHost 172.16.1.240:80
Listen 80

<IfModule mod_ssl.c>
    # SSL name based virtual hosts are not yet supported, therefore no
    # NameVirtualHost statement here
    Listen 443
</IfModule>

^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is   ^V Next Page  ^U UnCut Text ^T To Spell

```

Save file by press ctrl + x → press Y to save → Enter

Edit file default in /etc/apache2/apache2.conf by using command

```
#vim /etc/apache2/apache2.conf
```

Add NameVirtualHost 172.16.1.240:80 in apache2.conf

```

# 2. Directives that define the parameters of the 'main' or 'default' server,
# which responds to requests that aren't handled by a virtual host.
# These directives also provide default values for the settings
# of all virtual hosts.
# 3. Settings for virtual hosts, which allow Web requests to be sent to
# different IP addresses or hostnames and have them handled by the
# same Apache server process.
#
# Configuration and logfile names: If the filenames you specify for many
# of the server's control files begin with "/" (or "drive:/" for Win32), the
# server will use that explicit path.  If the filenames do *not* begin
# with "/", the value of ServerRoot is prepended -- so "/var/log/apache2/foo.log"
# with ServerRoot set to "" will be interpreted by the
# server as "//var/log/apache2/foo.log".
#
NameVirtualHost 172.16.1.240:80
### Section 1: Global Environment
#
# The directives in this section affect the overall operation of Apache,
# such as the number of concurrent requests it can handle or where it
# can find its configuration files.

```

Save file by press ctrl + x → press Y to save → Enter

Change directory to /etc/apache2/sites-available and create file name typo3.ubuntu.com

```
#cd /etc/apache2/sites-available
```

```
#touch typo3.ubuntu.com
```

```
root@classA:/# cd /etc/apache2/sites-available/
root@classA:/etc/apache2/sites-available# touch typo3.ubuntu.com
```

Edit file typo3.ubuntu.com like picture below:

```
<VirtualHost mediawiki.ubuntu.com :80>
ServerName ubuntu.com
ServerAlias mediawiki.ubuntu.com
ServerAdmin SNA2010_classA@ubuntu.com
DocumentRoot /var/lib/mediawiki
</VirtualHost>

~
~
~
~
~
~
~
~
~
~
~
-- INSERT --
```

Save file:x! → Enter

Change directory to /etc/apache2/sites-enabled by using command:

```
#cd /etc/apache2/sites-enabled/
```

creating a symbolic link from one folder to the next by using this command:

```
# ln -s ../sites-available/mediawiki.ubuntu.com
```

Restart service apache2 by using command:

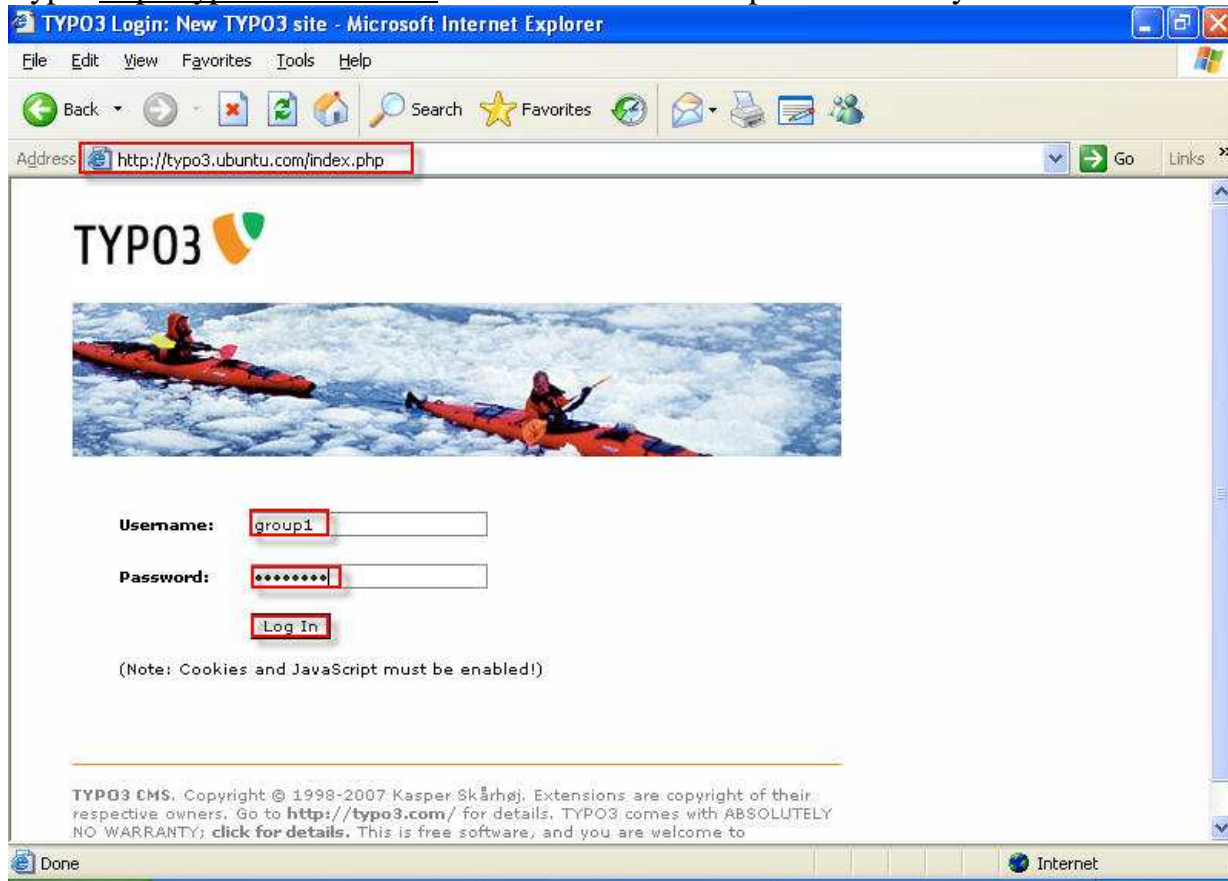
```
# sudo /etc/init.d/apache2 restart
```

```
root@classA:/# cd /etc/apache2/sites-enabled/
root@classA:/etc/apache2/sites-enabled# ls -n ../sites-available/typo3.ubuntu.com
-rw-r--r-- 1 0 0 166 2009-12-20 04:25 ../sites-available/typo3.ubuntu.com
root@classA:/etc/apache2/sites-enabled# ls -l
total 0
lrwxrwxrwx 1 root root 26 2009-12-18 10:06 000-default -> ../sites-available/default
lrwxrwxrwx 1 root root 35 2009-12-20 02:58 typo3.ubuntu.com -> ../sites-available/typo3.ubuntu.com
root@classA:/etc/apache2/sites-enabled#
```

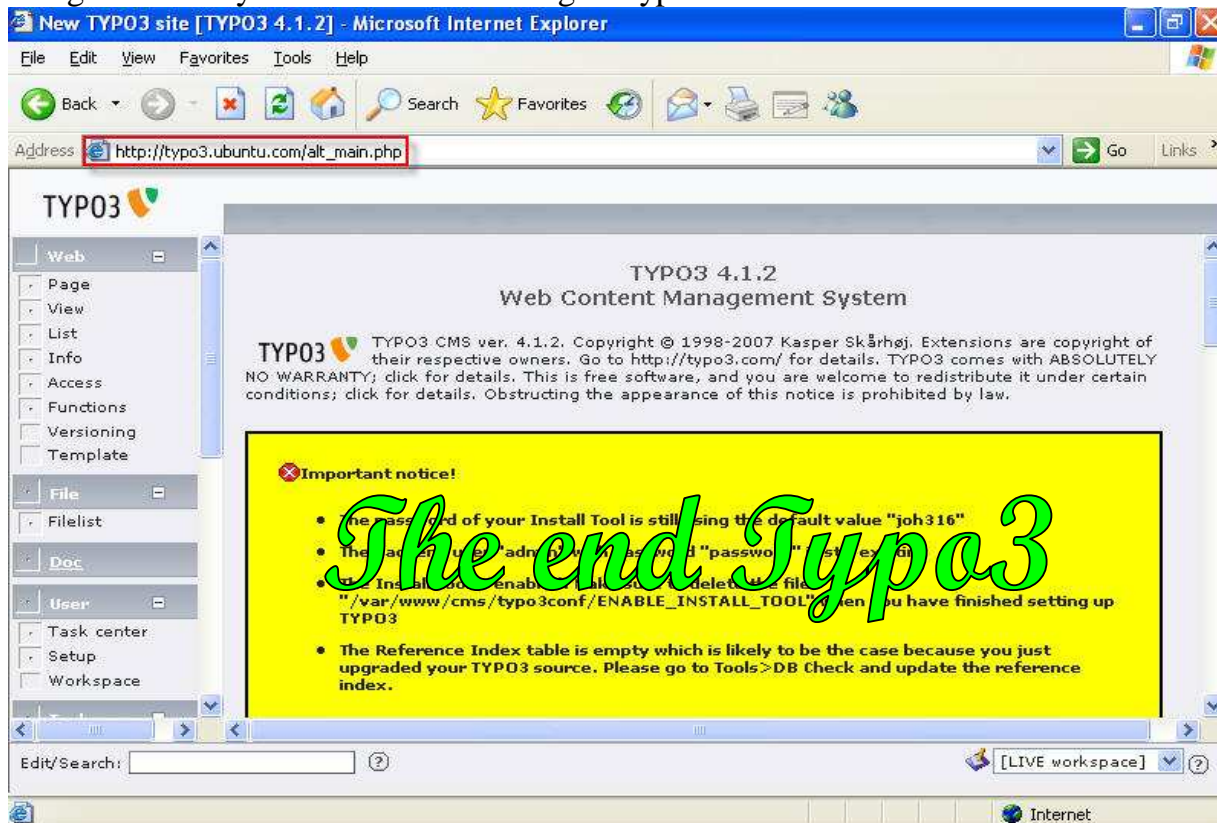


Access typo3 by using Internet Explorer in window XP

Type: <http://typo3.ubuntu.com> → Put username and password that you created



Congradulation you have success configure typo3 run with DNS in Ubuntu server!



## b. Wiki with Master DNS

**Wiki** is a web application that allows users to create and edit Web Page content using a Web Browser.

Requirements:

- Packages: apache2 mysql-server php5 php5-mysql mediawiki php5-cli libgd2-xpm libgd2-xpm-dev php5-gd.
- Ubuntu server runs with master DNS.
- Computer can access internet because all package install by download from internet (high speed is better) and window xp
- Software: putty and win SCP

First you should install these packages by using these command:

```
#sudo aptitude install apache2 mysql-server php5 php5-mysql mediawiki php5-cli libgd2-xpm libgd2-xpm-dev php5-gd
```

```
root@Uchanna:~# sudo aptitude install apache2 mysql-server php5 php5-mysql media
wiki php5-cli libgd2-xpm libgd2-xpm-dev php5-gd
Reading package lists... Done
Building dependency tree
Reading state information... Done
Initializing package states... Done
Writing extended state information... Done
The following packages are BROKEN:
  libc6-1686 libstdc++6
The following NEW packages will be installed:
  binutils(a) gcc(a) gcc-4.3(a) libc6-dev(a) libexpat1-dev(a)
  libfontconfig1-dev(a) libfreetype6-dev(a) libgd2-xpm-dev libgomp1(a)
  libjpeg62-dev(a) libpng12-dev(a) libpthread-stubs0(a)
  libpthread-stubs0-dev(a) libx11-dev(a) libxau-dev(a) libxcb-xlib0-dev(a)
  libxcb1-dev(a) libxdmcp-dev(a) libxext-dev(a) libxi-dev(a) libxi6(a)
  libxpm-dev(a) linux-libc-dev(a) mediawiki php5 pkg-config(a)
  x11proto-core-dev(a) x11proto-input-dev(a) x11proto-kb-dev(a)
  x11proto-xext-dev(a) xtrans-dev(a) zlib1g-dev(a)
The following packages will be upgraded:
  cpp-4.3 gcc-4.3-base libc6 libgcc1 libx11-6
5 packages upgraded, 32 newly installed, 0 to remove and 86 not upgraded.
Need to get 28.7MB of archives. After unpacking 75.8MB will be used.
The following packages have unmet dependencies:
  libstdc++6: Depends: gcc-4.3-base (= 4.3.2-1ubuntu1) but 4.3.2-1ubuntu12 is t
o be installed.
  libc6-1686: PreDepends: libc6 (= 2.8~20080505-0ubuntu7) but 2.8~20080505-0ubun
tu9 is to be installed.
The following actions will resolve these dependencies:

Upgrade the following packages:
libc6-1686 [2.8~20080505-0ubuntu7 (intrepid, now) -> 2.8~20080505-0ubuntu9
(intrepid-updates)]
libstdc++6 [4.3.2-1ubuntu1 (intrepid, now) -> 4.3.2-1ubuntu12
(intrepid-updates)]

Score is 190

Accept this solution? [Y/n/q/?] y
```

```
Setting up php5 (5.2.6-2ubuntu4.5) ...
Setting up mediawiki (1:1.12.0-2ubuntu0.3) ...
* Reloading web server config apache2
[Sun Dec 20 05:30:08 2009] [warn] NameVirtualHost *:80 has no VirtualHosts
[ OK ]

Setting up x11proto-input-dev (1.4.3-2ubuntu6) ...
Setting up x11proto-xext-dev (7.0.2-6build1) ...
Setting up libx11-dev (2:1.1.5-2ubuntu1.1) ...
Setting up libxext-dev (2:1.0.4-1) ...
Setting up libxi-dev (2:1.1.9-2build1) ...
Setting up libxpm-dev (1:3.5.7-1) ...
Setting up libgd2-xpm-dev (2.0.36~rc1-dfsg-3ubuntu1.8.10.1) ...
Processing triggers for libc6 ...
ldconfig deferred processing now taking place
Reading package lists... Done
Building dependency tree
Reading state information... Done
Reading extended state information
Initializing package states... Done
Writing extended state information... Done

Current status: 84 updates [-7].
root@Uchanna:~#
```

Edit file php.ini in /etc/php5/apache2 by using this command:

```
#sudo nano /etc/php5/apache2/php.ini
```

Change `upload_max_filesize = 2M` to `upload_max_filesize = 8M`

```
GNU nano 2.0.7 File: /etc/php5/apache2/php.ini Modified
;cgi.rfc2616_headers = 0

;::::::::::::::::::
; File Uploads ;
;::::::::::::::::::

; Whether to allow HTTP file uploads.
file_uploads = On

; Temporary directory for HTTP uploaded files (will use system default if not
; specified).
;upload_tmp_dir =

; Maximum allowed size for uploaded files.
upload_max_filesize = 8M

;::::::::::::::::::

^G Get Help ^C WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

Change `memory_limit = 8M` to `memory_limit = 32M`

```
;
; Misc
;
; Decides whether PHP may expose the fact that it is installed on the server
; (e.g. by adding its signature to the Web server header). It is no security
; threat in any way, but it makes it possible to determine whether you use PHP
; on your server or not.
expose_php = On

;::::::::::::::::::
; Resource Limits ;
;::::::::::::::::::

max_execution_time = 30 ; Maximum execution time of each script, in seconds
max_input_time = 60 ; Maximum amount of time each script may spend parsing reques
;max_input_nesting_level = 64 ; Maximum input variable nesting level
memory_limit = 32M ; Maximum amount of memory a script may consume (16MB)

^G Get Help ^C WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```



Uncommand ;extension=gd.so to extension

```

GNU nano 2.0.7 File: /etc/php5/apache2/php.ini Modified
;
; Dynamic Extensions ;
;
; If you wish to have an extension loaded automatically, use the following
; syntax:
;
; extension=modulename.extension
;
; For example, on Windows:
;
; extension=mysqli.dll
;
; ... or under UNIX:
;
; extension=mysqli.so
;
; Note that it should be the name of the module only; no directory information
; needs to go here. Specify the location of the extension with the
;
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell

```

Save file by type Ctrl +X → Y → Enter

Edit file apache.conf in /etc/mediawiki

sudo vim /etc/mediawiki/apache.conf

uncommand #Alias /mediawiki /var/lib/mediawiki to Alias /mediawiki /var/lib/mediawiki

```

# Uncomment this to add an alias.
# This does not work properly with virtual hosts..
Alias /mediawiki /var/lib/mediawiki
<Directory /var/lib/mediawiki/>
    Options +FollowSymLinks
    AllowOverride All
    order allow,deny
    allow from all
</Directory>

# some directories must be protected
<Directory /var/lib/mediawiki/config>
    Options -FollowSymLinks
    AllowOverride None
</Directory>
<Directory /var/lib/mediawiki/upload>
    Options -FollowSymLinks
    AllowOverride None
</Directory>
~
~
~
"/etc/mediawiki/apache.conf" 20L, 476C

```

Save file :x! → Enter

Change directory and rename config to config.save by using command:

```

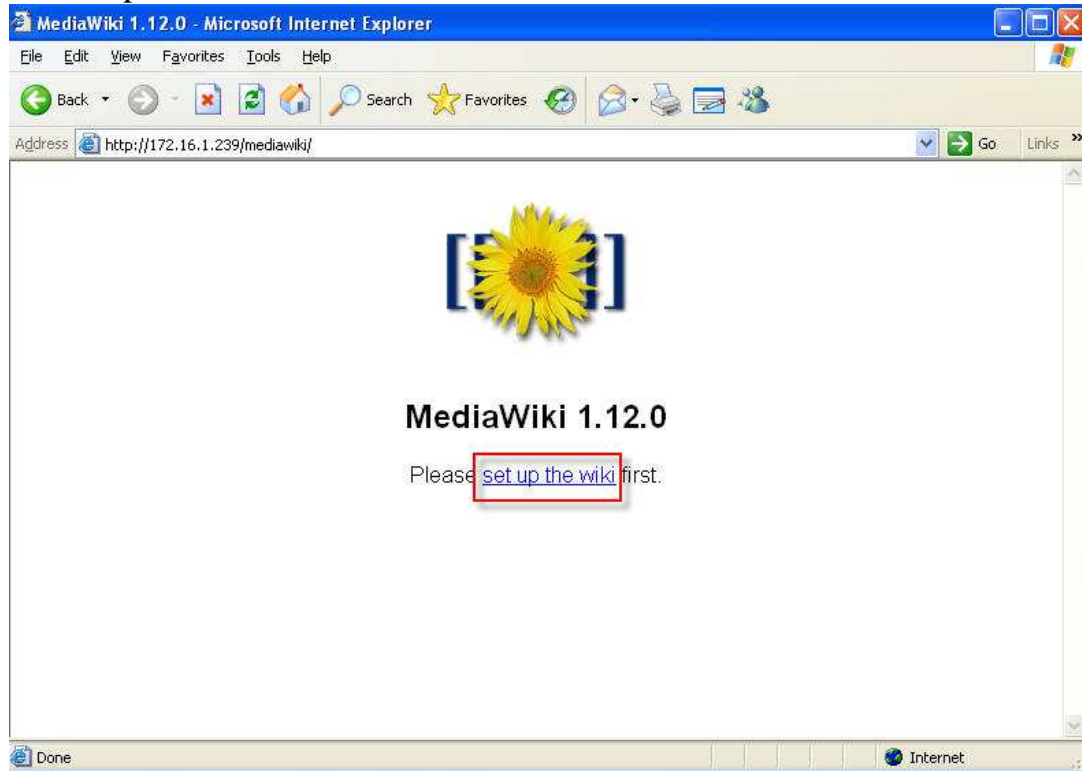
#cd /var/lib/mediawiki
#mv config/ config.save

```

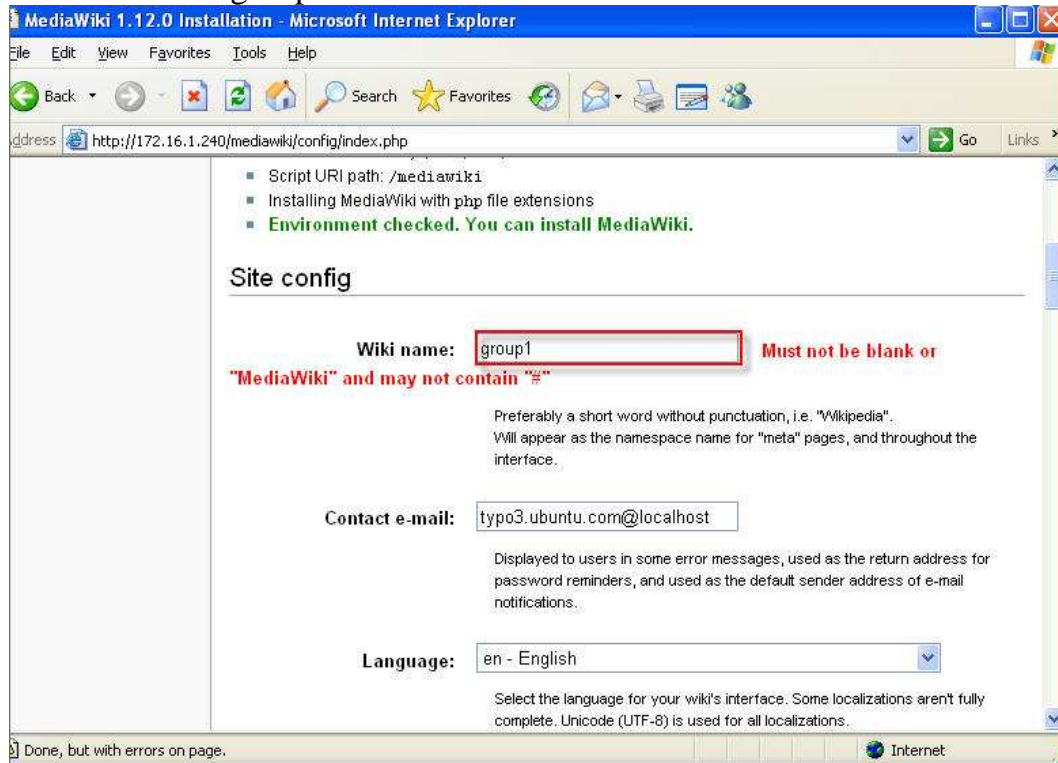
## Access wiki by using window XP

<http://172.16.1.240/mediawiki>

→ Set up the wiki



## Put wiki name: group1





## Put password admin username

MediaWiki 1.12.0 Installation - Microsoft Internet Explorer

Address: http://172.16.1.240/mediawiki/config/index.php

**Copyright/license:**

- No license metadata
- GNU Free Documentation License 1.2 (Wikipedia-compatible)
- A Creative Commons license - choose

A notice, icon, and machine-readable copyright metadata will be displayed for the license you pick.

**Admin username:** WikiSysop

**Password:** ..... **Cannot be blank**

**Password confirm:** ..... **Cannot be blank**

An admin can lock/delete pages, block users from editing, and do other maintenance tasks.  
A new account will be added only when creating a new wiki database.  
The password cannot be the same as the username.

**Object caching:**

- No caching
- DBA (not recommended)
- Memcached

**Memcached servers:** \_\_\_\_\_

An object caching system such as memcached will provide a significant

Done, but with errors on page. Internet

DB password: P@ssw0rd  
 DB password confirm: P@ssw0rd

MediaWiki 1.12.0 Installation - Microsoft Internet Explorer

Address: http://172.16.1.240/mediawiki/config/index.php

**Database host:** localhost

If your database server isn't on your web server, enter the name or IP address here.

**Database name:** wikidb

**DB username:** wikiuser

**DB password:** ..... **Must not be blank**

**DB password confirm:** ..... **Must not be blank**

If you only have a single user account and database available, enter those here.  
If you have database root access (see below) you can specify new accounts/databases to be created. This account will not be created if it pre-exists. If this is the case, ensure that it has SELECT, INSERT, UPDATE, and DELETE permissions on the MediaWiki database.

**Superuser account:**  Use superuser account

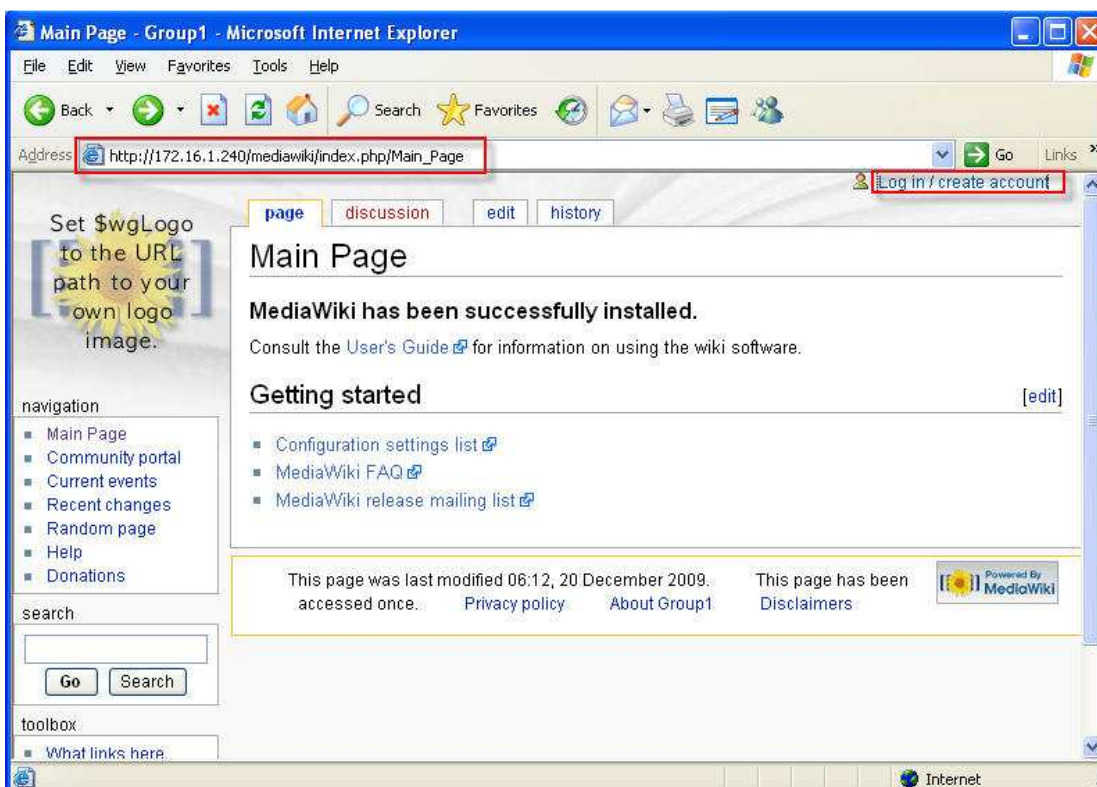
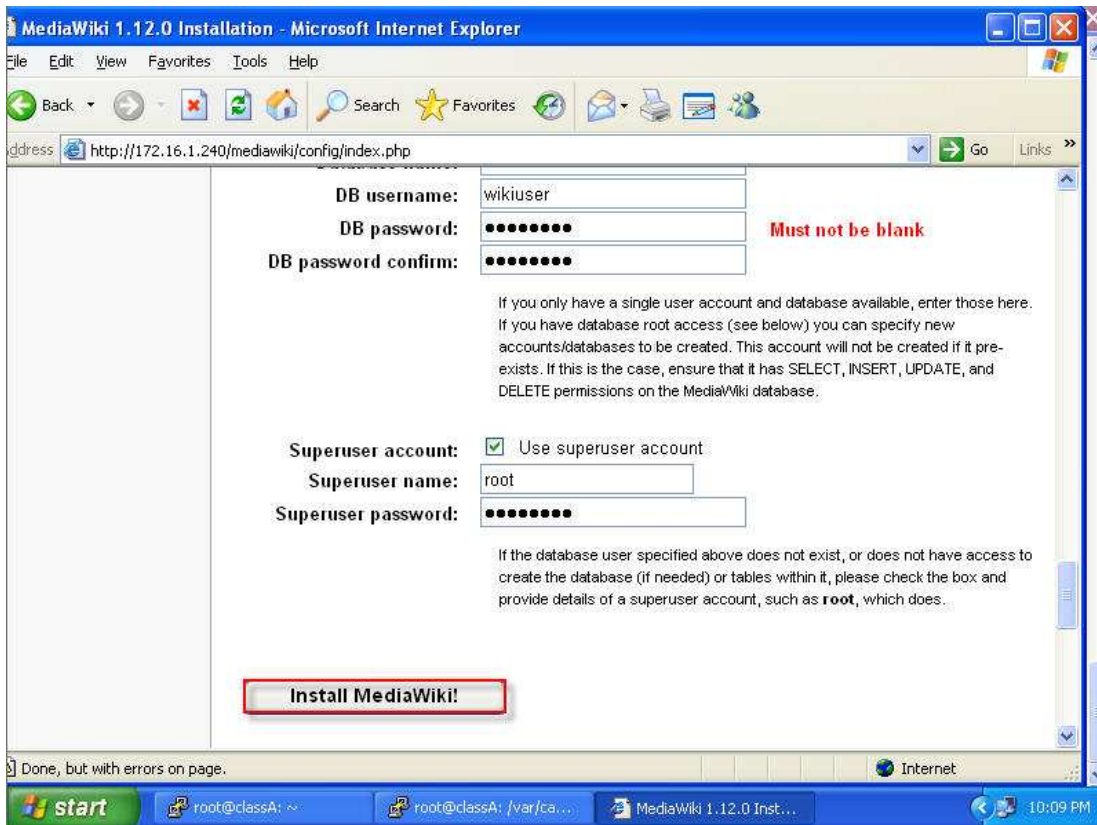
**Superuser name:** root

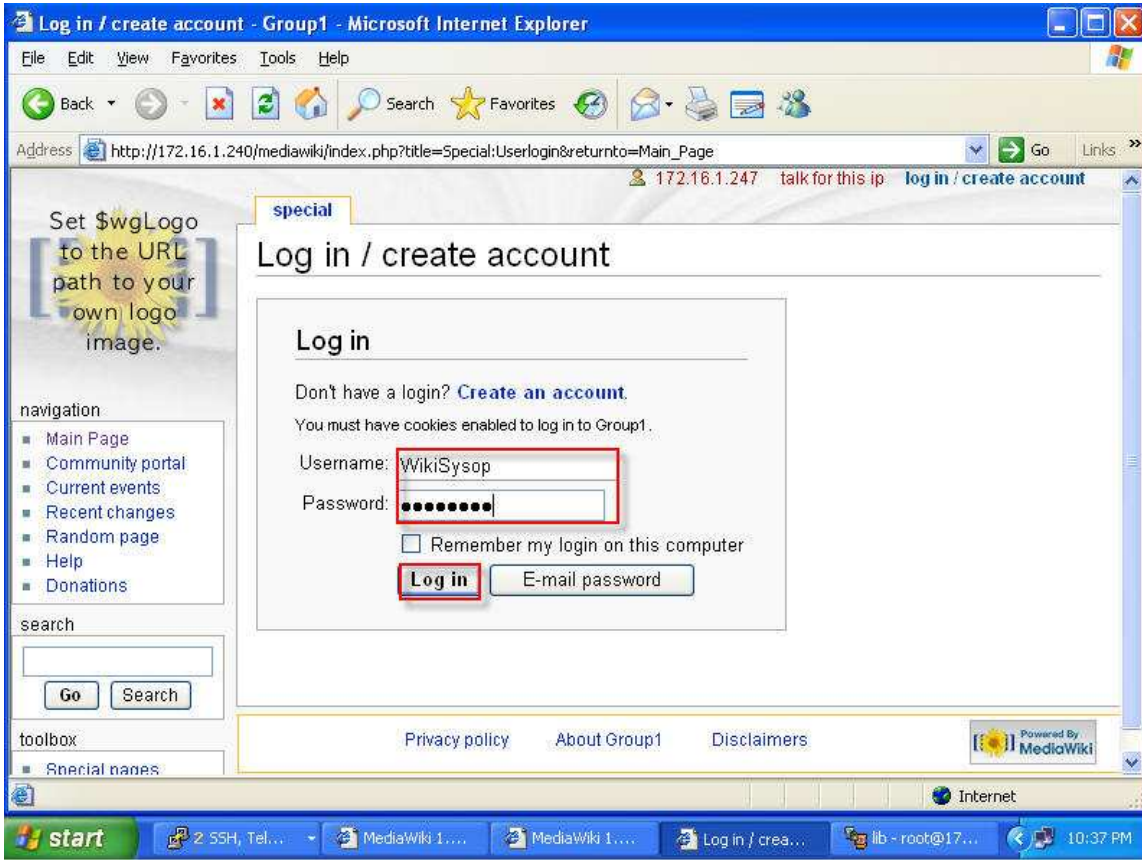
**Superuser password:** ..... **Must not be blank**

If the database user specified above does not exist, or does not have access to create the database (if needed) or tables within it, please check the box and provide details of a superuser account, such as **root**, which does.

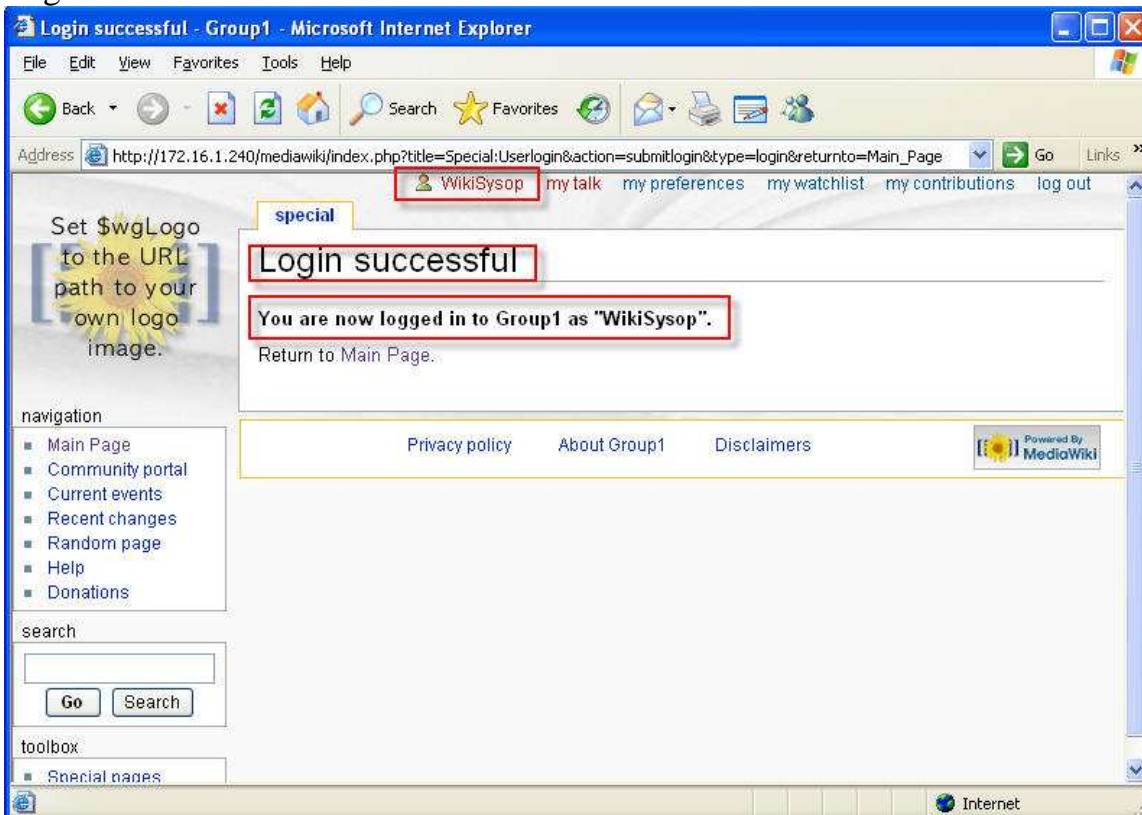
Done, but with errors on page. Internet

Put username: wikiuser  
 DB password: P@ssw0rd  
 DB password confirm: P@ssw0rd





### Log as successful





Create Virtual host wiki

## + Create Virtual Host in Ubuntu server 8.10

Edit file ports.conf in /etc/apache2 by using this command

```
nano /etc/apache2/ports.conf
```

Change NameVirtualHost \*:80 to NameVirtualHost 172.16.1.240:80

```
GNU nano 2.0.7      File: /etc/apache2/ports.conf      Modified
# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default
NameVirtualHost 172.16.1.240:80
Listen 80

<IfModule mod_ssl.c>
    # SSL name based virtual hosts are not yet supported, therefore no
    # NameVirtualHost statement here
    Listen 443
</IfModule>

^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is  ^V Next Page  ^U UnCut Text ^T To Spell
```

Save file by press ctrl + x → press Y to save → Enter

Edit file default in /etc/apache2/apache2.conf by using command

Add NameVirtualHost 172.16.1.240:80 in apache2.conf

```
# 2. Directives that define the parameters of the 'main' or 'default' server,
# which responds to requests that aren't handled by a virtual host.
# These directives also provide default values for the settings
# of all virtual hosts.
# 3. Settings for virtual hosts, which allow Web requests to be sent to
# different IP addresses or hostnames and have them handled by the
# same Apache server process.
#
# Configuration and logfile names: If the filenames you specify for many
# of the server's control files begin with "/" (or "drive:/" for Win32), the
# server will use that explicit path.  If the filenames do *not* begin
# with "/", the value of ServerRoot is prepended -- so "/var/log/apache2/foo.log"
# with ServerRoot set to "" will be interpreted by the
# server as "//var/log/apache2/foo.log".
#
NameVirtualHost 172.16.1.240:80
### Section 1: Global Environment
#
# The directives in this section affect the overall operation of Apache,
# such as the number of concurrent requests it can handle or where it
# can find its configuration files.
```



Save file by press ctrl + x → press Y to save → Enter

Change directory to /etc/apache2/sites-available and create file name typo3.ubuntu.com

```
#cd /etc/apache2/sites-available
```

```
#touch typo3.ubuntu.com
```

Edit file wiki.ubuntu.com like picture below:

```
<VirtualHost wiki.ubuntu.com:80>
ServerName ubuntu.com
ServerAlias wiki.ubuntu.com
ServerAdmin SNA_classA@ubuntu.com
DocumentRoot /var/lib/mediawiki
</VirtualHost>
~
~
~
~
```

Save file:x! → Enter

Change directory to /etc/apache2/sites-enabled by using command:

```
#cd /etc/apache2/sites-enabled/
```

creating a symbolic link from one folder to the next by using this command:

```
#ln -s ../sites-available/wiki.ubuntu.com
```

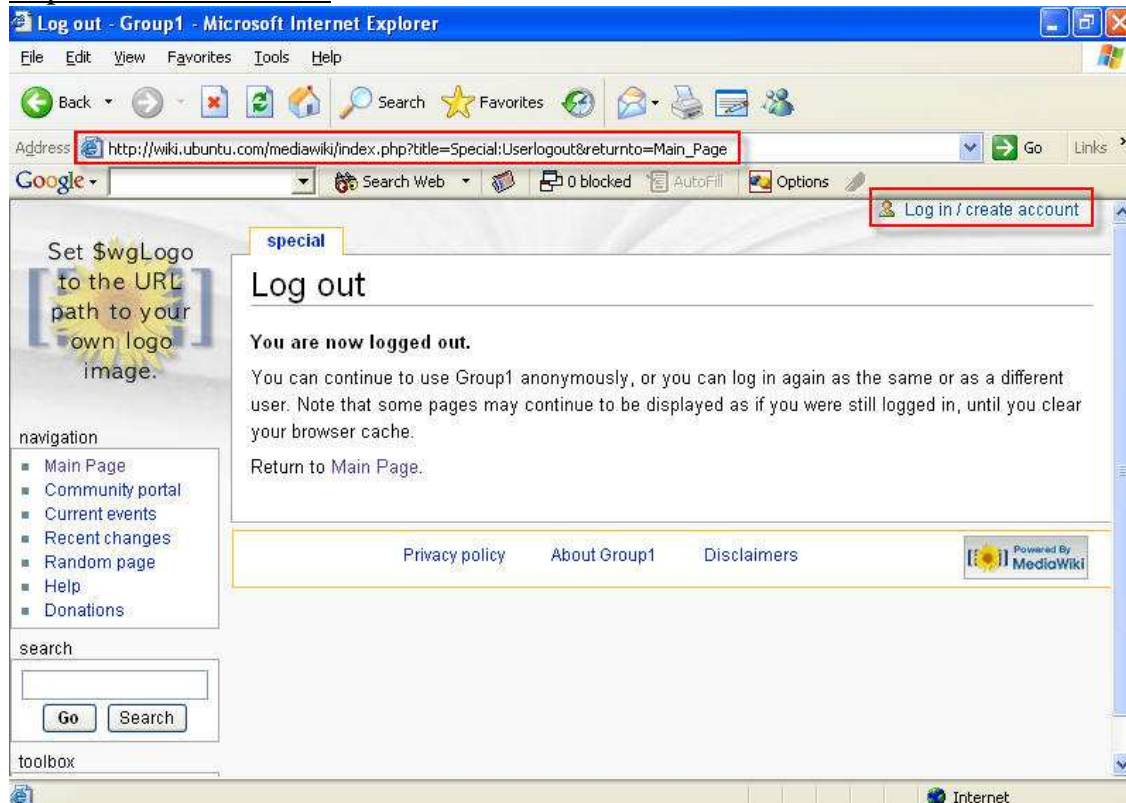
Restart service apache2 by using command:

```
#sudo /etc/init.d/apache2 restart
```

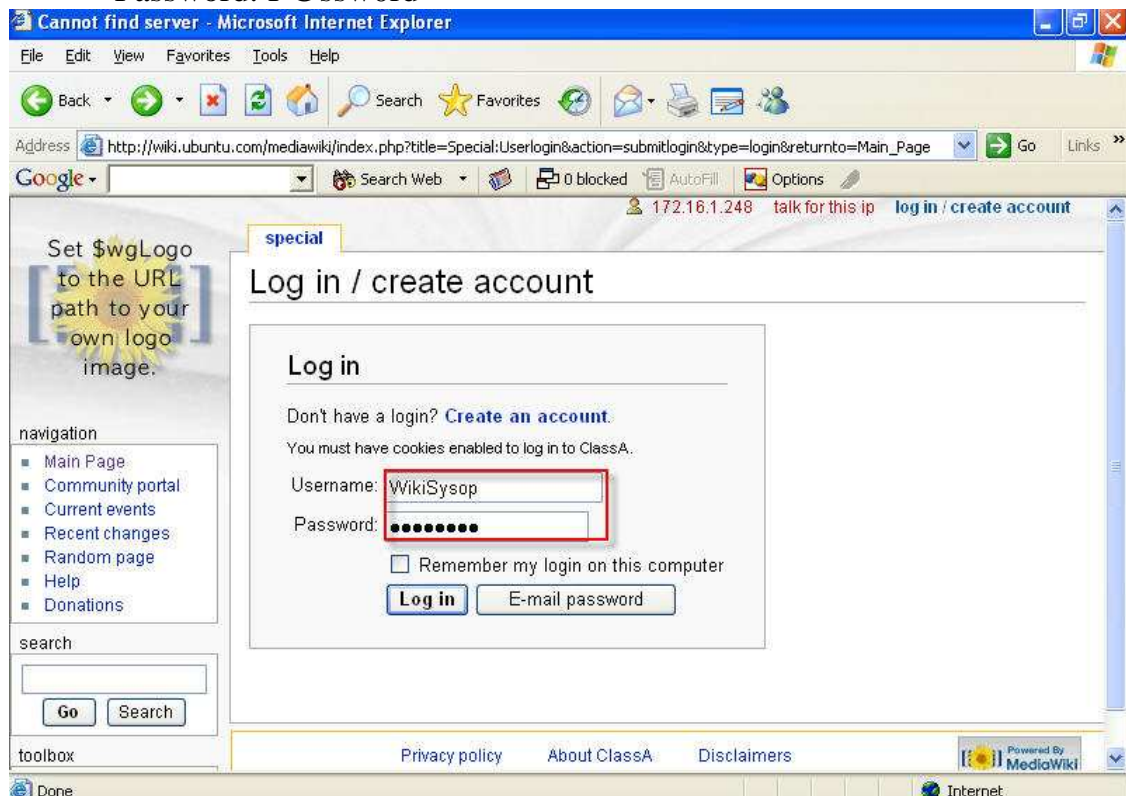
```
root@classA:/var/www/cms/typo3# cd /etc/apache2/sites-available/
root@classA:/etc/apache2/sites-available# touch wiki.ubuntu.com
root@classA:/etc/apache2/sites-available# vim wiki.ubuntu.com
root@classA:/etc/apache2/sites-available# cd ..
root@classA:/etc/apache2# cd sites-enabled/
root@classA:/etc/apache2/sites-enabled# ln -s ../sites-available/wiki.ubuntu.com
root@classA:/etc/apache2/sites-enabled# /etc/init.d/apache2 restart
* Restarting web server apache2
[Sun Dec 20 05:57:37 2009] [warn] NameVirtualHost 172.16.1.240:80 has no VirtualHosts
... waiting [Sun Dec 20 05:57:38 2009] [warn] NameVirtualHost 172.16.1.240:80 has no Virtual
Hosts
root@classA:/etc/apache2/sites-enabled# [ OK ]
```

## Test virtual host in Ubuntu server

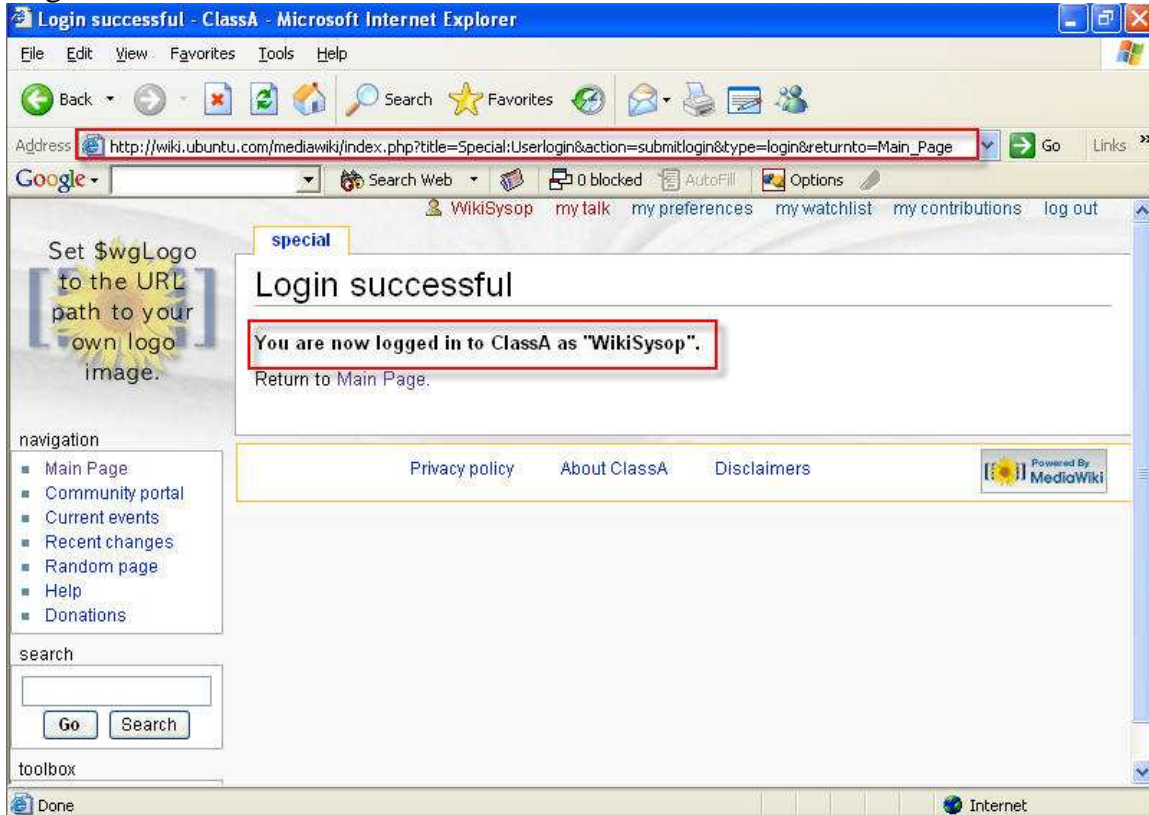
<http://wiki.ubuntu.com> in browser



Log as username WikiSysop  
Password: P@ssw0rd



## Login Successful



*The end wiki*