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Origin source from : [eDesignNetwork.org](#)

The System Requirements

During the installation process we will use the Centos 6.5 - 64 bit OS, the original hardware configuration should not require high you can install on a normal PC or a virtual machine using VMWare, VirtualBox.

For the CentOS operating system, you can downloading at URL address :

<http://centos.org/download>



Selecting a 64-bit version called "CentOS-6.5-x86_64-bin-DVD1.iso", after you download and install on the computer or on a virtual machine, the installation process is simple for anyone with basic computer skills.

Although this guiding document install on the Centos 6.5 operating system, but you can use any version of Centos 6.x for both 32 bit and 64 bit.

When the installation process is complete, you need the tools to connect with the Centos server via FTP and SSH protocols, you must to install FileZilla at the URL address :

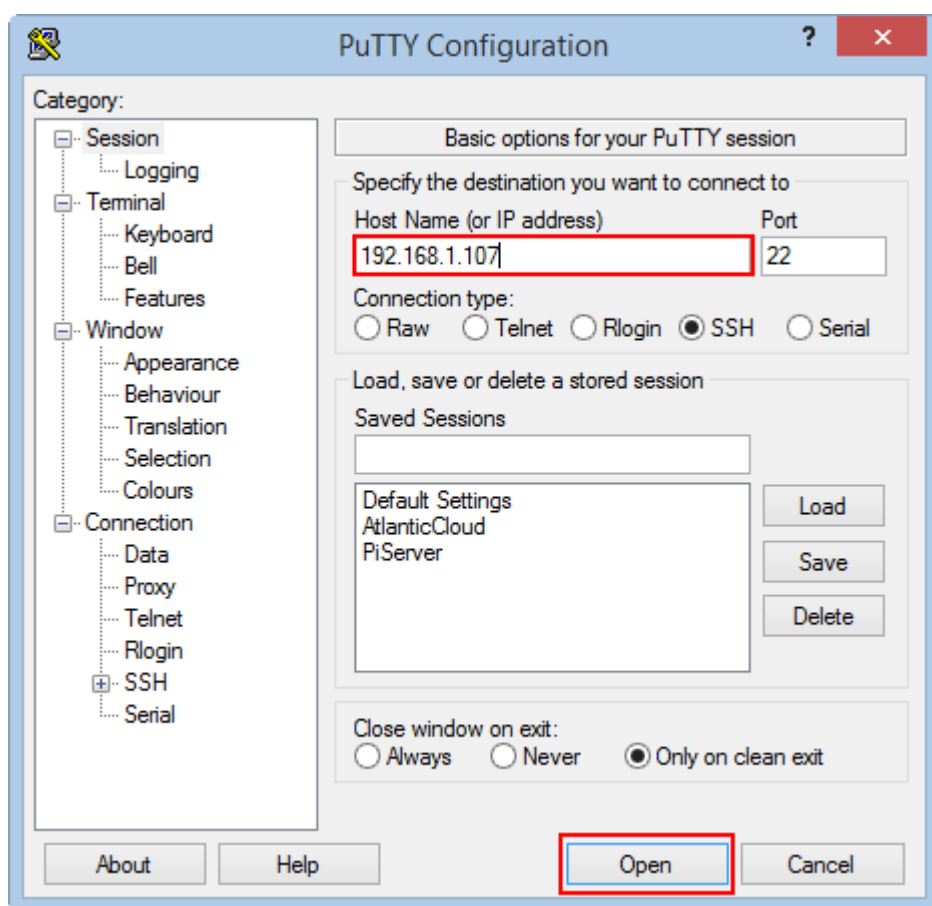
<https://filezilla-project.org/download.php>

Next, we need to install Putty to communicate with Linux via SSH.

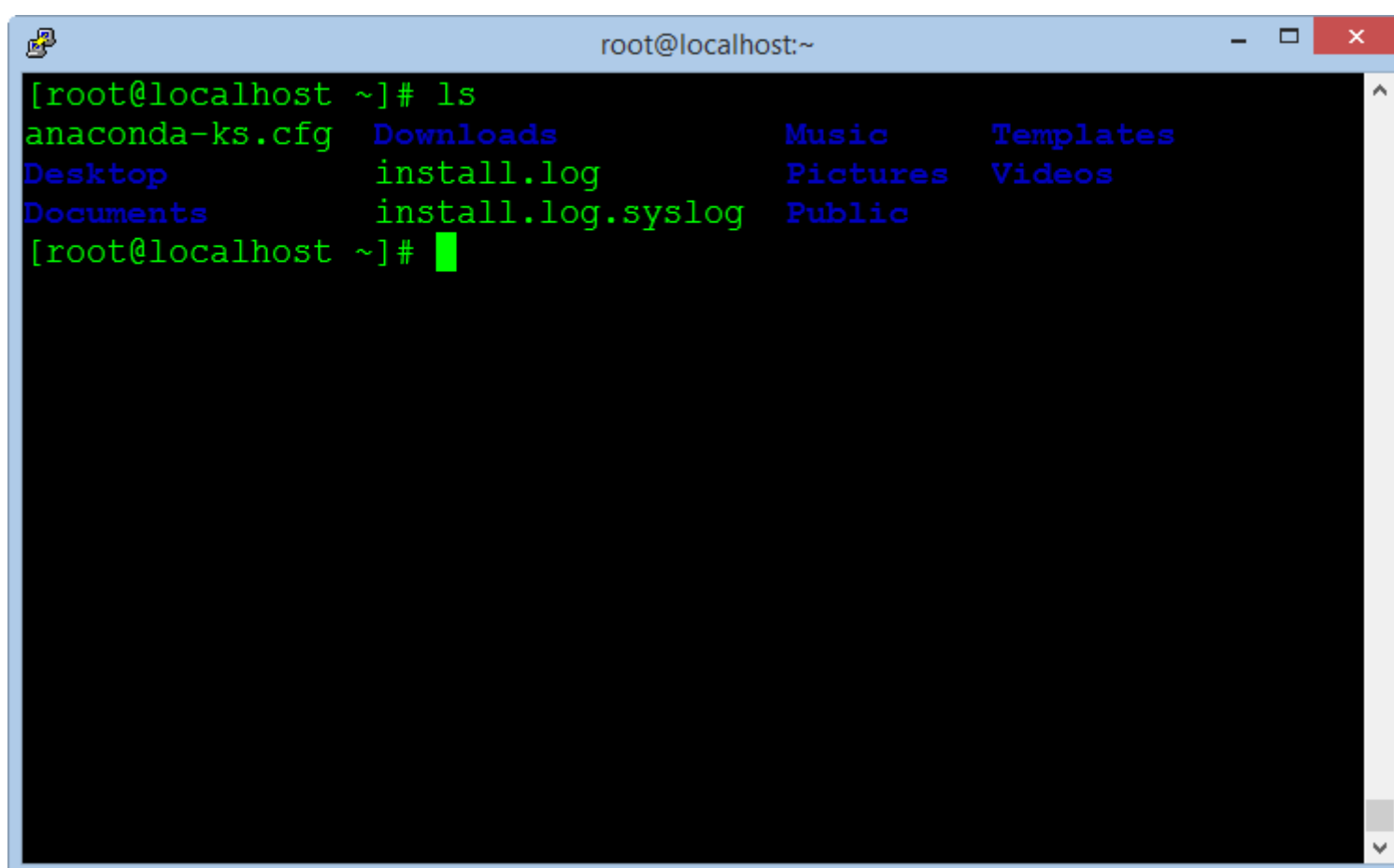
Download the installation package Putty for Windows at the following address :

<http://www.putty.org/>

To prepare for the next section, you need to set up a connection using Putty SSH to Server running Centos, enter the IP address of the computer running Centos (probably IP on the dedicated server, on the virtual machines, on the your LAN or PC).



After setting up SSH connection successful, we will move on to step installing the system.



Update the System

For convenience in the next section, we follow the way :

- Select and copy command (CTRL + C)
- Right-click into the Putty window to Paste command and press Enter to execute

Copy and execute the following command to update the critical components of the system :

```
yum update
```

```
root@localhost:~
Size
=====
Updating:
coreutils      x86_64      8.4-31.el6_5.1      updates      3.0 M
coreutils-libs x86_64      8.4-31.el6_5.1      updates       50 k
firefox        x86_64      24.4.0-1.el6.centos updates      47 M
glib2          x86_64      2.26.1-7.el6_5      updates      1.6 M
kpartx         x86_64      0.4.9-72.el6_5.1    updates       58 k
tzdata         noarch      2014a-1.el6          updates      448 k
udisks         x86_64      1.0.1-7.el6_5       updates      168 k
upstart        x86_64      0.6.5-13.el6_5.3    updates      177 k

Transaction Summary
=====
Upgrade      8 Package(s)

Total download size: 53 M
Is this ok [y/N]: y
Downloading Packages:
[1/8]: coreutil (5%) 89% [==== ] 355 kB/s | 2.7 MB    00:00 ETA
```

After the update completed, we need to restart the system using the following command :

```
reboot
```

Install the dependencies packages

These are the basic software packages for environment settings and utility tools to compile other packages in the next section.

Copy the block command and execute in the Putty Windows :

This is a long command line, copy all and implementation.

```
libyaml-devel zlib-devel curl-devel openssl-devel httpd-devel apr-devel apr-util-devel mysql-devel gcc ruby-devel gcc-c++ make postgresql-devel ImageMagick-devel
```

```
root@localhost:~
Transaction Summary
=====
Install      81 Package(s)

Total download size: 38 M
Installed size: 126 M
Downloading Packages:
(1/81): ImageMagick-6.5.4.7-7.el6_5.x86_64 | 1.7 MB    00:02
(2/81): ImageMagick-devel-6.5.4.7-7.el6_5.x86_64 | 86 kB    00:00
(3/81): OpenEXR-libs-1.6.1-8.1.el6.x86_64 | 197 kB    00:00
(4/81): apr-devel-1.3.9-5.el6_2.x86_64.r | 176 kB    00:00
(5/81): apr-util-devel-1.3.9-3.el6_0.1.x | 69 kB    00:00
(6/81): autoconf-2.63-5.1.el6.noarch.rpm | 781 kB    00:01
(7/81): automake-1.11.1-4.el6.noarch.rpm | 550 kB    00:00
(8/81): bzip2-devel-1.0.5-7.el6_0.x86_64 | 250 kB    00:00
(9/81): compat-readline5-5.2-17.1.el6.x86_64 | 130 kB    00:00
(10/81): cyrus-sasl-devel-2.1.23-13.el6.x86_64 | 302 kB    00:00
(11/81): db4-cxx-4.7.25-18.el6_4.x86_64 | 588 kB    00:00
[12/81): db4-d (16%) 25% [= ] 496 kB/s | 1.6 MB    00:10 ETA
```

Install Apache and MySQL

Apache is a server application for communicating over the HTTP protocol. Apache runs on operating systems such as Unix, Linux, Microsoft Windows, and other operating systems.

Apache play an important role in the development of the internet and the world wide web.

MySQL is the database management free open source most popular on the world, MySQL has high speed, stability and ease of use, portability, operating on multiple operating systems offer a large system is very powerful utility functions.

With the speed and high security, MySQL is well suited for applications that access databases on the internet.

Use the following command to install :

```
yum -y install httpd mysql mysql-server
```

```
root@localhost:~
Dependencies Resolved

=====
Package                Arch      Version      Repository    Size
=====
Installing:
mysql-server            x86_64     5.1.73-3.el6_5  updates      8.6 M
Installing for dependencies:
perl-DBD-MySQL          x86_64     4.013-3.el6    base          134 k
perl-DBI                 x86_64     1.609-4.el6    base          705 k

Transaction Summary
=====
Install      3 Package(s)

Total download size: 9.4 M
Installed size: 27 M
Downloading Packages:
[1/3]: mysql-s (79%) 87% [=== ] 739 kB/s | 7.5 MB    00:01 ETA
```

Allow start services when OS boot :

```
chkconfig httpd on
chkconfig mysqld on
service httpd start
service mysqld start
```

Set the password for MySQL

```
/usr/bin/mysql_secure_installation
```

Because we not have a password for the root account so you press Enter to skip.

```
Enter current password for root (enter for none):
```

Select Yes to set the password for the MySQL root account.

```
Set root password? [Y/n] y
```

Enter and confirm your password, remove the anonymous user, select Yes

```
Remove anonymous users? [Y/n] y
```

Allow remote login to MySQL as root account, select No.

```
Disallow root login remotely? [Y/n] n
```

Delete the test database, select Yes

```
Remove test database and access to it? [Y/n] y
```

Reload privilege tables, select Yes

```
Reload privilege tables now? [Y/n] y
```

Turn off SELinux

SELinux is a security feature advanced for Linux operating system, when installing the system you need to turn off this feature to get the process done smoothly, after successful you can turn on back if you want.

```
nano /etc/selinux/config
```

Change the file content :

```
SELINUX=disabled
```

```
root@localhost:~  
[root@localhost ~]# nano /etc/selinux/config  
GNU nano 2.0.9      File: /etc/selinux/config  
  
# This file controls the state of SELinux on the system.  
# SELINUX= can take one of these three values:  
#     enforcing - SELinux security policy is enforced.  
#     permissive - SELinux prints warnings instead of enforcing.  
#     disabled - No SELinux policy is loaded.  
SELINUX=disabled  
# SELINUXTYPE= can take one of these two values:  
#     targeted - Targeted processes are protected,  
#     mls - Multi Level Security protection.  
SELINUXTYPE=targeted  
  
[ Read 13 lines ]  
^G Get Hel^O WriteOu^R Read Fi^Y Prev Pa^K Cut Tex^C Cur Pos
```

Press CTRL + O to save the file and press CTRL + X to exit.

Set up the Hostname

By default when installing a new OS Centos not set the hostname, so we need to setting with the command :

```
nano /etc/hosts
```

```
root@localhost:/var/www  
GNU nano 2.0.9      File: /etc/hosts      Modified  
127.0.0.1  your_domain.com localhost localhost.localdomain local$  
::1       your_domain.com localhost localhost.localdomain local$  
  
^G Get Hel^O WriteOu^R Read Fi^Y Prev Pa^K Cut Tex^C Cur Pos  
^X Exit   ^J Justify^W Where I^V Next Pa^U UnCut T^T To Spell
```

Add your domain name or host name that you set on both the command line, save the file and exit, the server name will be changed when restarting.

Configuring the Firewall

We do not want to turn off the firewall because it's quite important, so you need to add rules to allow port 80 for HTTP and port 443 for HTTPS.

In the Centos OS, you can configuration firewall by editing files iptables and ip6tables.

```
nano /etc/sysconfig/iptables
```

```
root@localhost:~  
[root@localhost ~]# nano /etc/sysconfig/iptables  
GNU nano 2.0.9 File: /etc/sysconfig/iptables Modified  
  
# Firewall configuration written by system-config-firewall  
# Manual customization of this file is not recommended.  
*filter  
:INPUT ACCEPT [0:0]  
:FORWARD ACCEPT [0:0]  
:OUTPUT ACCEPT [0:0]  
-A INPUT -m state --state ESTABLISHED,RELATED -j ACCEPT  
-A INPUT -p icmp -j ACCEPT  
-A INPUT -i lo -j ACCEPT  
-A INPUT -m state --state NEW -m tcp -p tcp --dport 22 -j ACCEPT  
-A INPUT -m state --state NEW -m tcp -p tcp --dport 80 -j ACCEPT  
-A INPUT -m state --state NEW -m tcp -p tcp --dport 443 -j ACCEPT  
-A INPUT -j REJECT --reject-with icmp-host-prohibited  
-A FORWARD -j REJECT --reject-with icmp-host-prohibited  
COMMIT  
  
^G Get Help ^O Write Out ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
```

Press Enter to create a new line after the line of port 22, copy the following two commands and right click on the window to the Paste command.

```
-A INPUT -m state --state NEW -m tcp -p tcp --dport 80 -j ACCEPT  
-A INPUT -m state --state NEW -m tcp -p tcp --dport 443 -j ACCEPT
```

Press CTRL + O to save the file and press CTRL + X to exit.

The same applies for IP6 firewall :

```
nano /etc/sysconfig/ip6tables
```

Add these lines to the file.

```
-A INPUT -m state --state NEW -m tcp -p tcp --dport 80 -j ACCEPT  
-A INPUT -m state --state NEW -m tcp -p tcp --dport 443 -j ACCEPT
```

After you finish editing both files, run the commands to apply the new rules for firewall.

```
/etc/init.d/iptables restart  
/etc/init.d/ip6tables restart
```

Allow turn on the firewall when reboot the operating system.

```
chkconfig iptables on  
chkconfig ip6tables on
```

Finally, we need to restart the system to apply the changes to the SELinux and Hostname.

```
reboot
```

Install PHP and phpMyAdmin

Because we use MySQL database management system, so we need to install phpMyAdmin program management.

phpMyAdmin is a free open source tool written by PHP language to manage MySQL database via a web browser.

It can create, modify or delete databases, tables, fields or records, perform SQL statements, or managing users and permissions.

The command to install PHP and the packages :

```
yum -y install php php-mysql php-gd php-imap php-ldap php-mbstring php-odbc php-pear php-xml php-xmlrpc php-pecl-apc php-soap
```

```
root@localhost:~  
(4/18): php-cli-5.3.3-27.el6_5.x86_64.rpm | 2.2 MB 00:02  
(5/18): php-common-5.3.3-27.el6_5.x86_64.r | 525 kB 00:00  
(6/18): php-gd-5.3.3-27.el6_5.x86_64.rpm | 107 kB 00:00  
(7/18): php-imap-5.3.3-27.el6_5.x86_64.rpm | 51 kB 00:00  
(8/18): php-ldap-5.3.3-27.el6_5.x86_64.rpm | 38 kB 00:00  
(9/18): php-mbstring-5.3.3-27.el6_5.x86_64 | 455 kB 00:00  
(10/18): php-mysql-5.3.3-27.el6_5.x86_64.r | 81 kB 00:00  
(11/18): php-odbc-5.3.3-27.el6_5.x86_64.rp | 51 kB 00:00  
(12/18): php-pdo-5.3.3-27.el6_5.x86_64.rpm | 75 kB 00:00  
(13/18): php-pear-1.9.4-4.el6.noarch.rpm | 393 kB 00:00  
(14/18): php-pecl-apc-3.1.9-2.el6.x86_64.r | 96 kB 00:00  
(15/18): php-soap-5.3.3-27.el6_5.x86_64.rp | 140 kB 00:00  
(16/18): php-xml-5.3.3-27.el6_5.x86_64.rpm | 103 kB 00:00  
(17/18): php-xmlrpc-5.3.3-27.el6_5.x86_64. | 53 kB 00:00  
(18/18): unixODBC-2.2.14-12.el6_3.x86_64.r | 378 kB 00:00  
-----  
Total 589 kB/s | 6.3 MB 00:11  
Running rpm_check_debug  
Running Transaction Test  
█
```

Restarting the Apache service :

```
service httpd restart
```

And install phpMyadmin :

```
rpm --import http://dag.wieers.com/rpm/packages/RPM-GPG-KEY.dag.txt  
yum install http://pkgs.repoforge.org/rpmforge-release/rpmforge-release-0.5.3-1.el6.rf.x86_64.rpm  
yum -y install phpmyadmin
```

```
root@localhost:~  
Install 1 Package(s)  
  
Total size: 13 k  
Installed size: 13 k  
Downloading Packages:  
Running rpm_check_debug  
Running Transaction Test  
Transaction Test Succeeded  
Running Transaction  
  Installing : rpmforge-release-0.5.3-1.el6.rf.x86_64 1/1  
  Verifying : rpmforge-release-0.5.3-1.el6.rf.x86_64 1/1  
  
Installed:  
  rpmforge-release.x86_64 0:0.5.3-1.el6.rf  
  
Complete!  
[root@localhost ~]# yum -y install phpmyadmin  
Loaded plugins: fastestmirror, refresh-packagekit, security  
Loading mirror speeds from cached hostfile  
█
```

Editing the virtual host file to allow remote login to the phpMyadmin.

```
nano /etc/httpd/conf.d/phpmyadmin.conf
```



```
root@localhost:~  
GNU nano 2.0.9 File: ../httpd/conf.d/phpmyadmin.conf Modified  
#  
# Web application to manage MySQL  
#  
<Directory "/usr/share/phpmyadmin">  
  Order Deny,Allow  
  Deny from all  
  Allow from all  
</Directory>  
  
Alias /phpmyadmin /usr/share/phpmyadmin  
Alias /phpMyAdmin /usr/share/phpmyadmin  
Alias /mysqladmin /usr/share/phpmyadmin  
  
[ Read 13 lines ]  
^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
```

Replace text "Allow from 127.0.0.1" to "Allow from all", save the file and exit.

Editing the configuration file for the phpMyadmin

```
nano /usr/share/phpmyadmin/config.inc.php
```

```
root@localhost:~  
GNU nano 2.0.9 File: ..are/phpmyadmin/config.inc.php Modified  
$i++;  
/* Authentication type */  
$cfg['Servers'][$i]['auth_type'] = 'http';  
/* Server parameters */  
$cfg['Servers'][$i]['host'] = 'localhost';  
$cfg['Servers'][$i]['connect_type'] = 'tcp';  
$cfg['Servers'][$i]['compress'] = false;  
/* Select mysqli if your server has it */  
$cfg['Servers'][$i]['extension'] = 'mysql';  
/* User for advanced features */  
// $cfg['Servers'][$i]['controluser'] = 'pma';  
// $cfg['Servers'][$i]['controlpass'] = 'pmapass';  
/* Advanced phpMyAdmin features */  
// $cfg['Servers'][$i]['pma_db'] = 'phpmyadmin';  
// $cfg['Servers'][$i]['bookmarktable'] = 'pma_bookmark';  
  
[ Read 60 lines ]  
^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
```

Replace text :

```
$cfg['Servers'][$i]['auth_type'] = 'cookie';
```

To :

```
$cfg['Servers'][$i]['auth_type'] = 'http';
```

Save the file and exit, restarting the Apache service :

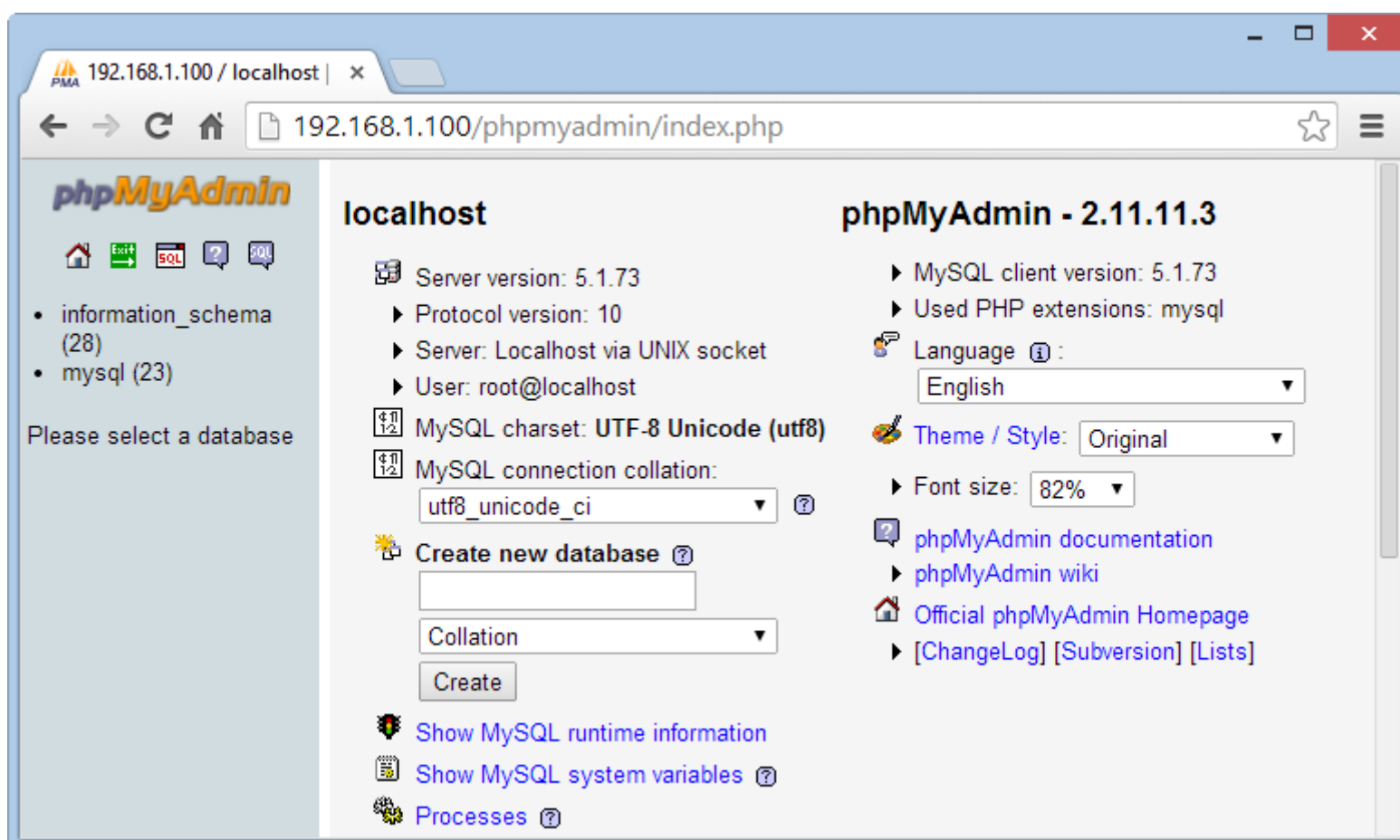
```
service httpd restart
```

After successfully installed phpMyadmin, you can check at the address :

🌐 <http://your-domain/phpmyadmin>

Login with account : root / your_password

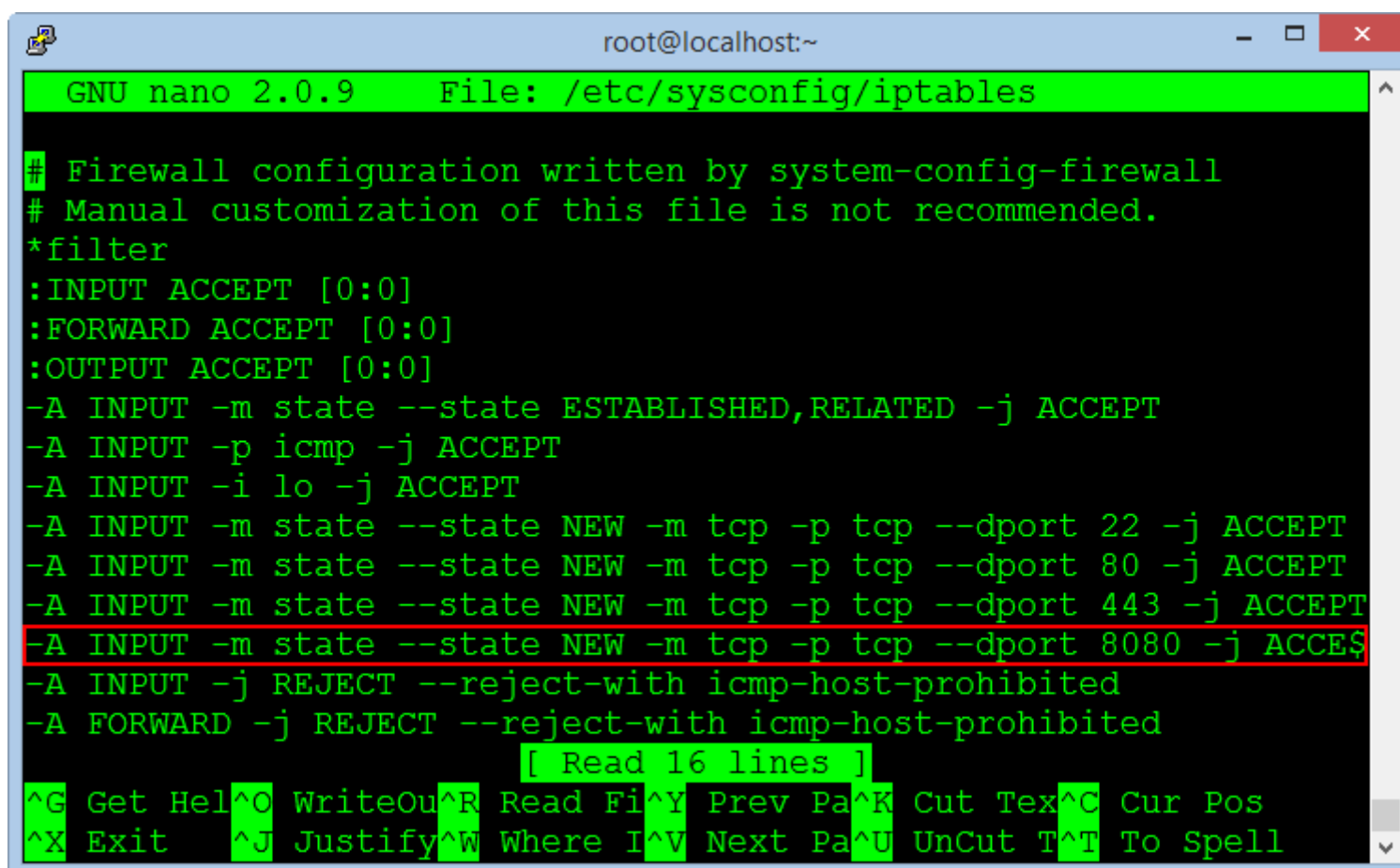
With Password has been set at step install MySQL database in the above.



Note: If you install the Redmine system on the PC or in a virtual machine which not on the dedicated server, we need to switch the application phpMyadmin to run on port 8080 because port 80 will be used for Redmine in the next steps.

We need add a port 8080 to the firewall and change the VirtualHost for phpMyadmin.

```
nano /etc/sysconfig/iptables
```



Add the command line :

```
-A INPUT -m state --state NEW -m tcp -p tcp --dport 8080 -j ACCEPT
```

The same applies for IP6 firewall :

```
nano /etc/sysconfig/ip6tables
```

Add the command line :

```
-A INPUT -m state --state NEW -m tcp -p tcp --dport 8080 -j ACCEPT
```

Restarting firewall service to allow the new port.

```
/etc/init.d/iptables restart
/etc/init.d/ip6tables restart
```

Editing the VirtualHost file to run phpMyadmin on the port 8080

```
nano /etc/httpd/conf/httpd.conf
```

```
root@localhost:~
GNU nano 2.0.9 File: ...httpd/conf.d/phpmyadmin.conf Modified
<VirtualHost *:8080>
    DocumentRoot /usr/share/phpmyadmin/
    ServerName your_domain.com
</VirtualHost>

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

Change the file content :

```
<VirtualHost *:8080>
    DocumentRoot /usr/share/phpmyadmin/
    ServerName your_domain.com
</VirtualHost>
```

Next, add the command to allows listening on the port 8080 in the file "httpd.conf"

```
nano /etc/httpd/conf/httpd.conf
```

```
root@localhost:/etc/httpd/conf
GNU nano 2.0.9 File: /etc/httpd/conf/httpd.conf Modified
#
# Change this to Listen on specific IP addresses as shown below $
# prevent Apache from glomming onto all bound IP addresses (0.0.$
#
#Listen 12.34.56.78:80

Listen 80
Listen 8080

#
# Dynamic Shared Object (DSO) Support
#
# To be able to use the functionality of a module which was buil$
# have to place corresponding 'LoadModule' lines at this locatio$
# directives contained in it are actually available _before_ the$

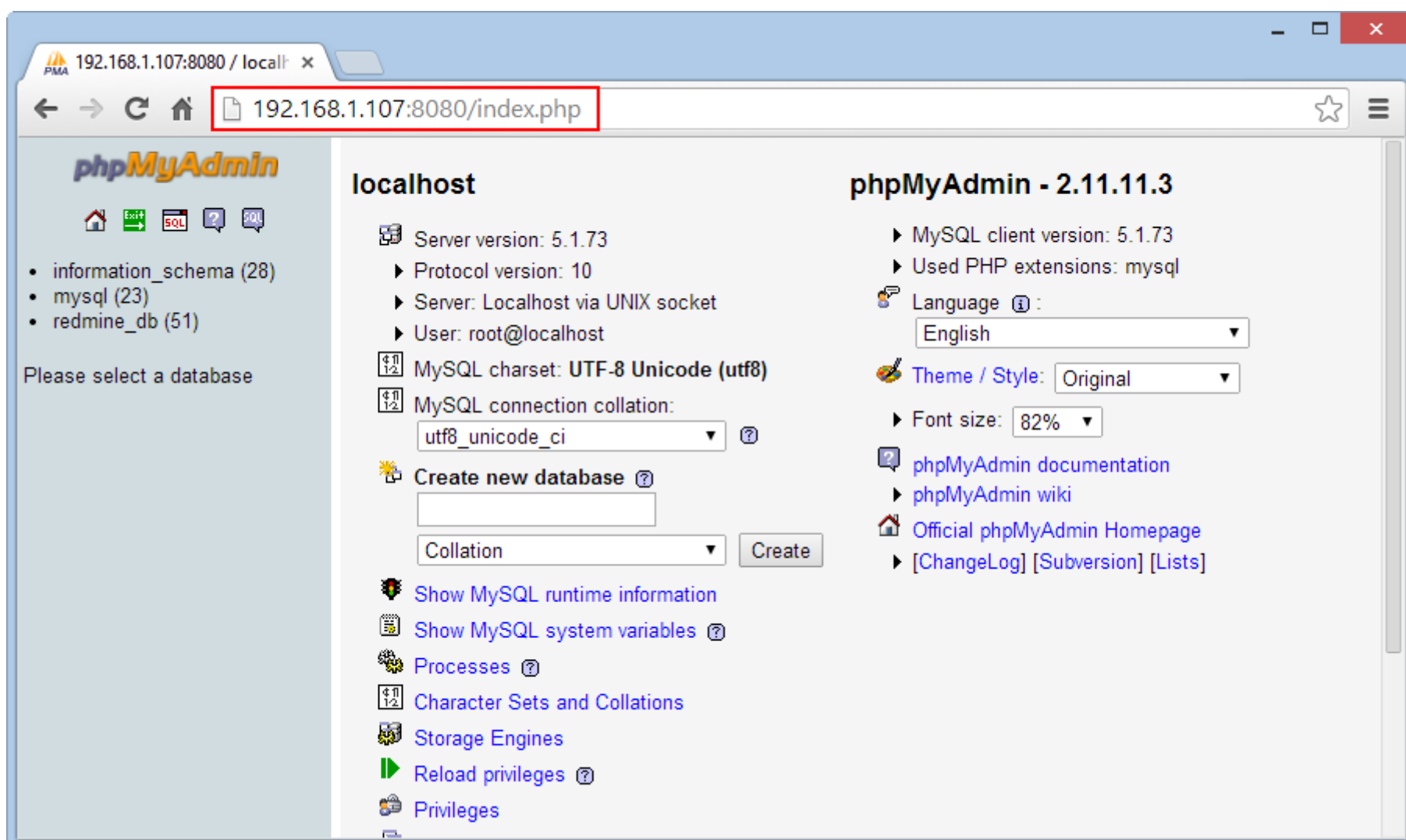
^G Get Help ^O Write Out ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where I ^V Next Page ^U UnCut Text ^T To Spell
```

Add the command line :

```
Listen 8080
```

Save the file and exit, restarting the Apache service :

```
service httpd restart
```



Now, phpMyadmin will run on the port 8080 at the address :

<http://your-domain:8080>

Install Ruby

Ruby is a object-oriented programming language, capable of reflection. Syntax inherited from Ada and Perl with object-oriented features of Smalltalk, and also share some features with Python, Lisp, Dylan and CLU, Ruby is a single phase interpreter.

Ruby provides programming patterns, including functional programming, object-oriented, imperative, reflective, it uses dynamic variable and automatic memory management.

Install Ruby interpreter with version management program RVM.

```
\curl -L https://get.rvm.io | bash
```

After successful, we will launch RVM

```
source /etc/profile.d/rvm.sh
```

The following command will list the versions of Ruby to install :

```
rvm list known
```

```
root@localhost:~  
[root@localhost ~]# source /etc/profile.d/rvm.sh  
[root@localhost ~]# rvm list known  
# MRI Rubies  
[ruby-]1.8.6[-p420]  
[ruby-]1.8.7[-p374]  
[ruby-]1.9.1[-p431]  
[ruby-]1.9.2[-p320]  
[ruby-]1.9.3[-p545]  
[ruby-]2.0.0-p353  
[ruby-]2.0.0[-p451]  
[ruby-]2.1[.1]  
[ruby-]2.1-head  
ruby-head  
  
# GoRuby  
goruby  
  
# Topaz  
topaz
```

We choose the stable version [ruby-] 1.9.3 [-p545], and execute the following command :

```
rvm install 1.9.3
```

```
root@localhost:~
98 9802k 98 9654k 0 0 17863 0 0:09:21 0:09:13 0
98 9802k 98 9677k 0 0 17869 0 0:09:21 0:09:14 0
98 9802k 98 9699k 0 0 17881 0 0:09:21 0:09:15 0
99 9802k 99 9733k 0 0 17906 0 0:09:20 0:09:16 0
99 9802k 99 9755k 0 0 17907 0 0:09:20 0:09:17 0
99 9802k 99 9773k 0 0 17913 0 0:09:20 0:09:18 0
99 9802k 99 9787k 0 0 17905 0 0:09:20 0:09:19 0
99 9802k 99 9801k 0 0 17890 0 0:09:21 0:09:21 --
100 9802k 100 9802k 0 0 17883 0 0:09:21 0:09:21 --
:--:-- 15201
ruby-1.9.3-p545 - #extracting ruby-1.9.3-p545 to /usr/local/rvm/src/ruby-1.9.3-p545.
ruby-1.9.3-p545 - #applying patch /usr/local/rvm/patches/ruby/GH-488.patch.
ruby-1.9.3-p545 - #applying patch /usr/local/rvm/patches/ruby/ssl_no_ec2m.patch.
ruby-1.9.3-p545 - #configuring.....
.....
ruby-1.9.3-p545 - #post-configuration.
ruby-1.9.3-p545 - #compiling.....█
```

The installation process is pretty long time, but you do not need any intervention, after successful, you check with the following command :

```
ruby -v
```

Install Rubygems

Rubygems is a Ruby's packages management program, very popular in applications written by Ruby language and the Ruby On Rails framework.

```
yum -y install rubygems
```

```
root@localhost:~
Install      4 Package(s)

Total download size: 1.4 M
Installed size: 4.8 M
Downloading Packages:
(1/4): ruby-1.8.7.352-13.el6.x86_64.rpm | 534 kB    00:00
(2/4): ruby-irb-1.8.7.352-13.el6.x86_64.rp | 314 kB    00:00
(3/4): ruby-rdoc-1.8.7.352-13.el6.x86_64.r | 377 kB    00:00
(4/4): rubygems-1.3.7-5.el6.noarch.rpm | 207 kB    00:00
-----
Total                               532 kB/s | 1.4 MB    00:02
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : ruby-1.8.7.352-13.el6.x86_64          1/4
  Installing : ruby-irb-1.8.7.352-13.el6.x86_64      2/4
  Installing : ruby-rdoc-1.8.7.352-13.el6.x86_64     3/4
  Installing : rubygems-1.3.7-5.el6.noarch            4/4
█
```

Install Passenger

The full name of the Passenger is Phusion Passenger, known as mod_rails or mod Rack, it is a web application intergrate with Apache and it can operate as a standalone web server support for the Ruby On Rails applications.

Execute the following commands :

```
gem install passenger
passenger-install-apache2-module
```

```
root@localhost:~  
[root@localhost ~]# gem install passenger  
Fetching: daemon_controller-1.2.0.gem (100%)  
Successfully installed daemon_controller-1.2.0  
Fetching: rack-1.5.2.gem (100%)  
Successfully installed rack-1.5.2  
Fetching: passenger-4.0.37.gem (100%)  
Building native extensions. This could take a while...  
Successfully installed passenger-4.0.37  
Installing ri documentation for daemon_controller-1.2.0  
Installing ri documentation for passenger-4.0.37  
unable to convert "\x89" from ASCII-8BIT to UTF-8 for test/multipa  
rt/binary, skipping  
Installing ri documentation for rack-1.5.2  
3 gems installed  
[root@localhost ~]# █
```

After completed, we copy a notification block in the window to create the configuration file in the next steps (select block notification and press C to copy).

```
LoadModule passenger_module /usr/local/rvm/gems/ruby-1.9.3-p545/gems/passenger-4.0.37/buildout/apache2/mod_passenger.so  
<IfModule mod_passenger.c>  
  PassengerRoot /usr/local/rvm/gems/ruby-1.9.3-p545/gems/passenger-4.0.37  
  PassengerDefaultRuby /usr/local/rvm/gems/ruby-1.9.3-p545/wrappers/ruby  
</IfModule>
```

Create a new virtual host file for Passenger :

```
nano /etc/httpd/conf.d/passenger.conf
```

Paste the command blocks into the empty file and save it, then restart the Apache service.

```
service httpd restart
```

Create Database for Redmine

Use MySQLAdmin to create an empty database for Redmine, saved password to fill in the configuration file in the next steps.

```
mysql --user=root --password=root_password_mysql  
create database redmine_db character set utf8;  
create user 'redmine_admin'@'localhost' identified by 'your_new_password';  
grant all privileges on redmine_db.* to 'redmine_admin'@'localhost';  
quit;
```

```
root@localhost:~  
Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input  
statement.  
  
mysql> create database redmine_db character set utf8;  
Query OK, 1 row affected (0.02 sec)  
  
mysql> create user 'redmine admin'@'localhost' identified by '█  
█';  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> grant all privileges on redmine_db.* to 'redmine_admin'@'lo  
calhost';  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> quit; █
```

Install Redmine

Redmine is a main program of the project management system, we will download and install the program from the website of Redmine.

Download Redmine version 2.5.x to directory "/var/www" on the Centos OS.

```
cd /var/www  
wget http://www.redmine.org/releases/redmine-2.5.0.tar.gz
```

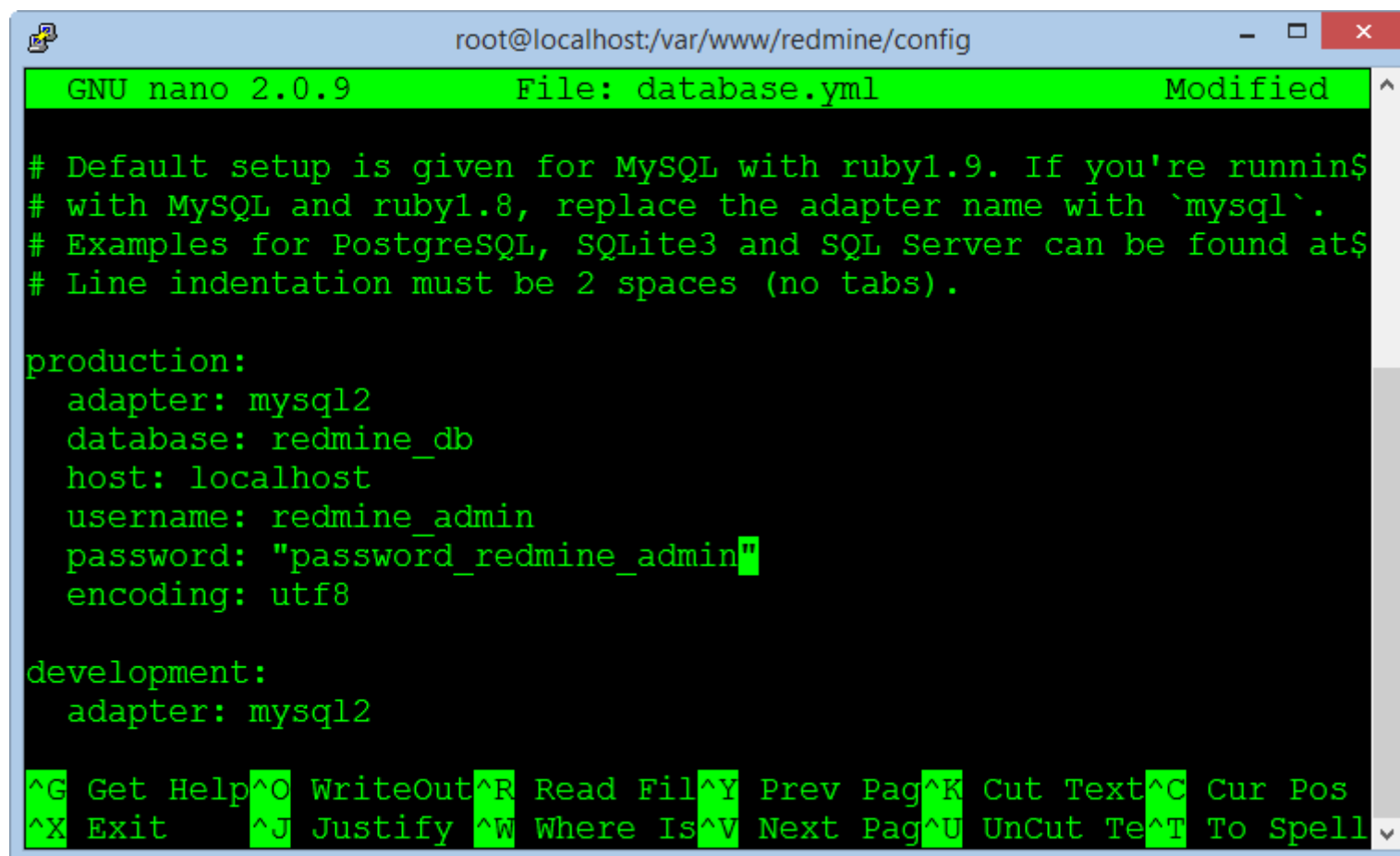
Extract the folder and rename directory

```
tar xvfz redmine-2.5.0.tar.gz
mv redmine-2.5.0 redmine
rm -rf redmine-2.5.0.tar.gz
```

Configuring the Database

The next, we need to configure the database was created from the above steps.

```
cd /var/www/redmine/config
cp database.yml.example database.yml
nano database.yml
```



```
root@localhost:/var/www/redmine/config
GNU nano 2.0.9      File: database.yml      Modified

# Default setup is given for MySQL with ruby1.9. If you're running
# with MySQL and ruby1.8, replace the adapter name with `mysql`.
# Examples for PostgreSQL, SQLite3 and SQL Server can be found at
# Line indentation must be 2 spaces (no tabs).

production:
  adapter: mysql2
  database: redmine_db
  host: localhost
  username: redmine_admin
  password: "password_redmine_admin"
  encoding: utf8

development:
  adapter: mysql2

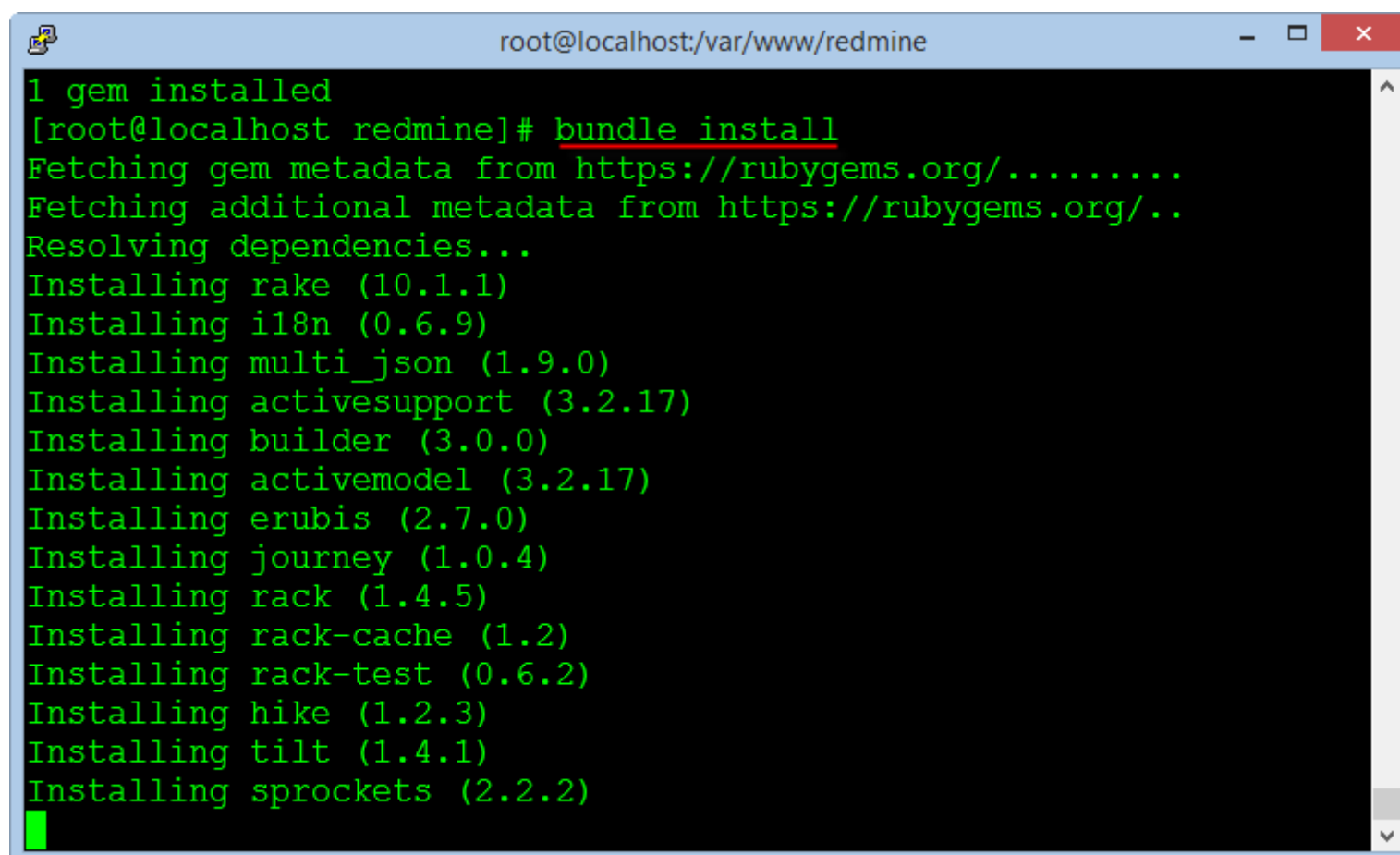
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit     ^J Justify  ^W Where Is ^V Next Page ^U UnCut Te ^T To Spell
```

Enter name for database, enter username and password of the database. Press CTRL + O to save the file and CTRL + X to exit.

Setting up Rails

Install the package library support for Rails using the Bundle.

```
cd /var/www/redmine
gem install bundler
bundle install
rake generate_secret_token
```



```
root@localhost:/var/www/redmine
1 gem installed
[root@localhost redmine]# bundle install
Fetching gem metadata from https://rubygems.org/.....
Fetching additional metadata from https://rubygems.org/..
Resolving dependencies...
Installing rake (10.1.1)
Installing i18n (0.6.9)
Installing multi_json (1.9.0)
Installing activesupport (3.2.17)
Installing builder (3.0.0)
Installing activemodel (3.2.17)
Installing erubis (2.7.0)
Installing journey (1.0.4)
Installing rack (1.4.5)
Installing rack-cache (1.2)
Installing rack-test (0.6.2)
Installing hike (1.2.3)
Installing tilt (1.4.1)
Installing sprockets (2.2.2)
```

The next, we create the database table for the Redmine application.

```
RAILS_ENV=production rake db:migrate
RAILS_ENV=production rake redmine:load_default_data
```

Activate FCGI

```
cd /var/www/redmine/public
```



```
mkdir plugin_assets
cp dispatch.fcgi.example dispatch.fcgi
cp htaccess.fcgi.example .htaccess
```

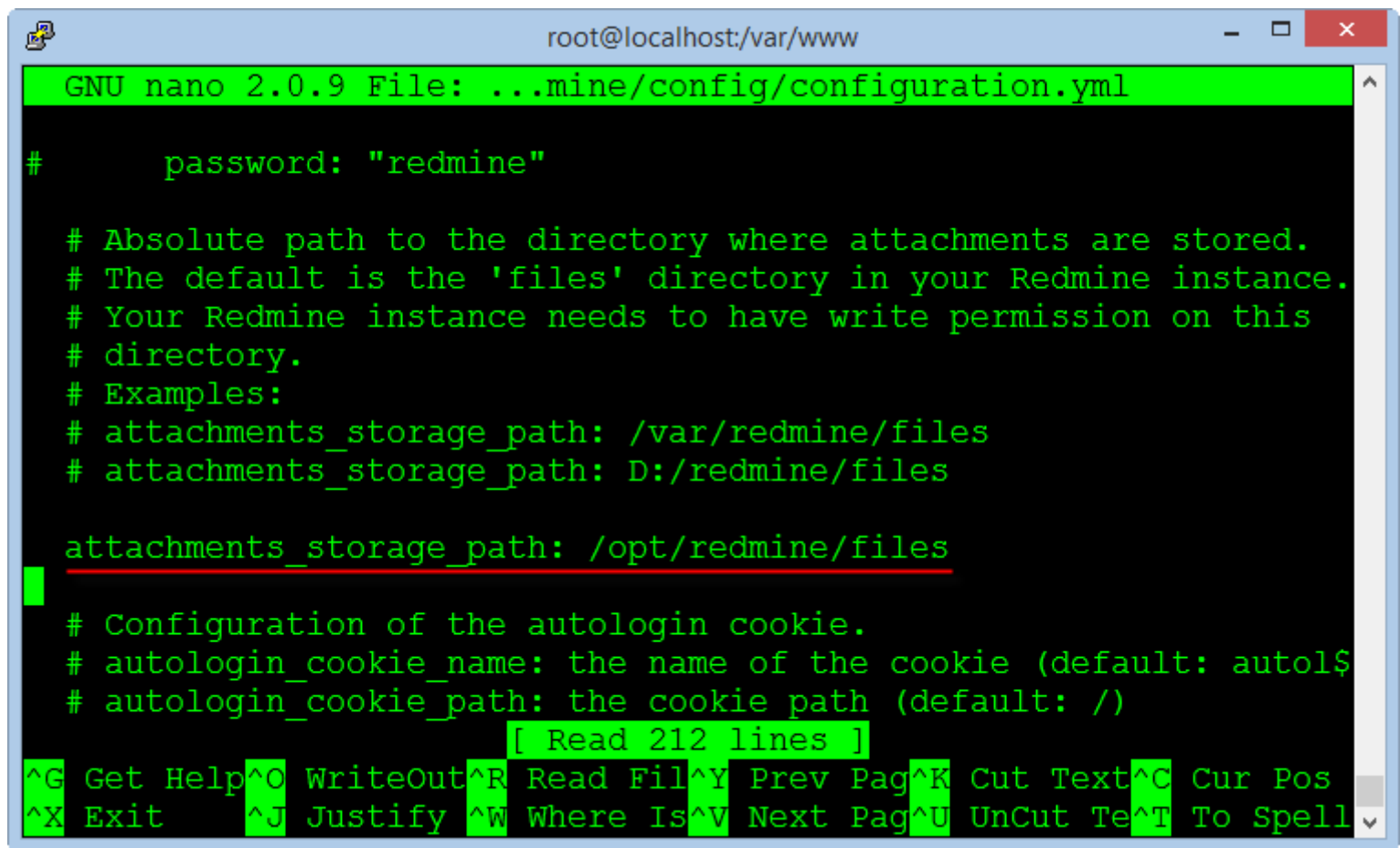
Setting up Apache and FastCGI

```
cd /var/www/
rpm --import https://fedoraproject.org/static/0608B895.txt
wget http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm
rpm -ivh epel-release-6-8.noarch.rpm
yum -y install mod_fcgid
rm -rf epel-release-6-8.noarch.rpm
```

Creating Files Directory

This directory contains data files generated during the operation of Redmine as document or image file, we create a new directory in the "/opt".

```
mkdir -p /opt/redmine/files
chown -R apache:apache /opt/redmine
cd /var/www/redmine/config
cp configuration.yml.example configuration.yml
nano configuration.yml
```



Enter the directory path containing the data files you just created in the previous step into the line "attachments_storage_path".

Note: You must add a space at the begin of the path "/opt/redmine/files" after character ":"

Configuring Email

Another very important function of Redmine is using email to notify members when the contents of each project changes, Redmine can use many different methods to send email that is Sendmail, SMTP, GMail ...

To configure the email we will edit the configuration file.

```
nano /var/www/redmine/config/configuration.yml
```

The simplest is you use features of the default SendMail in the Centos OS by settings :

```
email_delivery:
  delivery_method: :sendmail
```

Note : Do not use the Tab key to indent when editing the configuration file, you need to use the space bar on the keyboard.

If you use GMail's SMTP, you need to register an email account with the login methods used password normal and disable two-step authentication by smart phone.

Enter your Gmail account as below :

```
email_delivery:
  delivery_method: :smtp
  smtp_settings:
    enable_starttls_auto: true
    address: "smtp.gmail.com"
    port: 587
    domain: "smtp.gmail.com"
    authentication: :plain
    user_name: "your_email@gmail.com"
    password: "your_password"
```

Save the file configuration and exit.

Create Virtual Host for Redmine

Create an Apache configuration file for the Redmine application at the port 80.

```
nano /etc/httpd/conf.d/redmine.conf
```


Copy the text below and paste into the editor window, note the information to change your domain name.

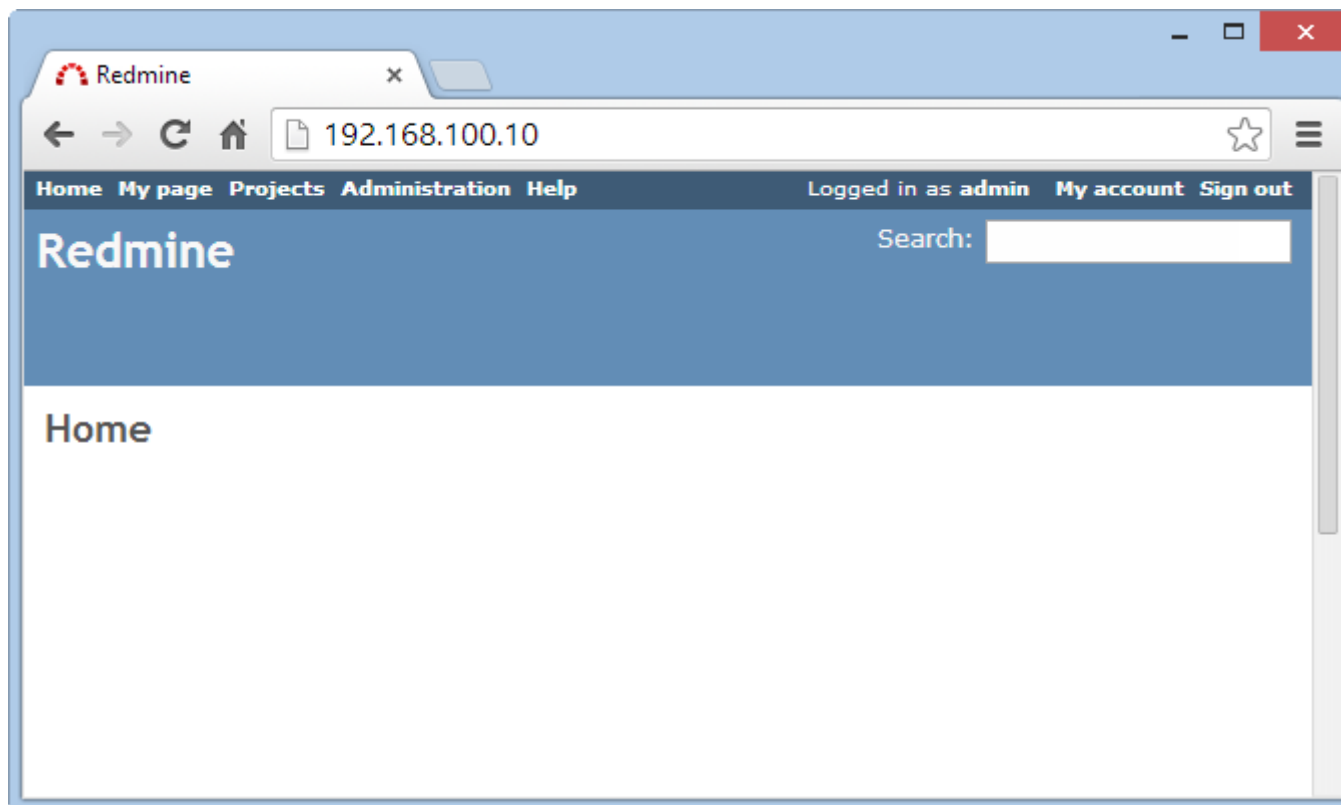
```
<VirtualHost *:80>
    ServerName your_domain
    ServerAdmin your_domain@domain.com
    DocumentRoot /var/www/redmine/public/
    ErrorLog logs/redmine_error_log
    <Directory "/var/www/redmine/public/">
        Options Indexes ExecCGI FollowSymLinks
        Order allow,deny
        Allow from all
        AllowOverride all
    </Directory>
</VirtualHost>
```

Save the file configuration and exit.

Running Redmine

Before execute Redmine in the first time, we must permission for the directory installed Redmine and restart Apache service.

```
cd /var/www
chown -R apache:apache redmine
chmod -R 755 redmine
service httpd restart
```



Redmine will run at the following address URL :

<http://your-domain>

Login to system with an administrator account : admin / admin

You can change your password after successful login.

We can see Redmine has running but very primitive, in the next steps we will install the support plugins and customized Redmine to use professional.

Install Subversion

Subversion, also known as SVN, it is a version management system is very popular and easy to use, most programmers can use it competently.

We need to create a folder to store data for Redmine, the following command creates a directory and permissions for the Apache service.

```
mkdir -p /opt/repositories/svn
chown -R apache:apache /opt/repositories/
chmod 0755 /opt/repositories
```

The following command install Subversion and the packages :

```
yum install mod_dav_svn subversion subversion-ruby
```

```
root@localhost:/var/www
---> Package subversion-ruby.x86_64 0:1.6.11-10.el6_5 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                        Arch      Version      Repository
=====
Installing:
mod_dav_svn                    x86_64     1.6.11-10.el6_5    update
subversion                     x86_64     1.6.11-10.el6_5    update
subversion-ruby                x86_64     1.6.11-10.el6_5    update
=====

Transaction Summary
=====
Install      3 Package(s)

Total download size: 2.7 M
Installed size: 13 M
Is this ok [y/N]:
```

The next, we will create a directory and copy the file called "Redmine.pm", it responsible for interface data repository with Redmine and it is written by Perl language programming.

```
mkdir /usr/lib64/perl5/vendor_perl/Apache
ln -s /var/www/redmine/extra/svn/Redmine.pm /usr/lib64/perl5/vendor_perl/Apache/Redmine.pm
```

Note : If you are using 32 bit Centos, change the path "/usr/lib64" to "/usr/lib"

After installation is complete, from the Redmine application, go to the page **Administration > Settings > Repositories** to check the results.

To support the authentication and access to data repository for each member, we need to create a virtual host for the Apache service can access Redmine database.

```
nano /etc/httpd/conf.d/subversion.conf
```





Add the following lines to the end and still retain the old contents of the file :









```
PerlLoadModule Apache::Redmine
<Location /svn>
    DAV svn
    SVNParentPath "/opt/repositories/svn"
    SVNListParentPath on
    Order deny,allow
    Deny from all
    Satisfy any
    LimitXMLRequestBody 0
    SVNPathAuthz off
    PerlAccessHandler Apache::Authn::Redmine::access_handler
    PerlAuthenHandler Apache::Authn::Redmine::authen_handler
    AuthType Basic
    AuthName "Subversion Repository"
    Require valid-user
    RedmineDSN "DBI:mysql:database=redmine_db;host=localhost:3306"
    RedmineDbUser "redmine_admin"
    RedmineDbPass "your_password_database_redmine"
</Location>
```

Note : You need to change the password in the "RedmineDbPass" to correct the database password of Redmine.

At this point, we have finished the basic settings for Redmine.

Thank you!

-  [BundleInstall.png](#) (29,51 KB) Mr. DTTH, 2014-06-25 15:28
-  [AttachFilePath.png](#) (31,522 KB) Mr. DTTH, 2014-06-25 15:28
-  [CompleteInstallphpMyadmin.png](#) (59,686 KB) Mr. DTTH, 2014-06-25 15:28
-  [ConfigDBRedmine.png](#) (29,177 KB) Mr. DTTH, 2014-06-25 15:28
-  [ConnectCentosOK.png](#) (12,212 KB) Mr. DTTH, 2014-06-25 15:28
-  [ConnectPutty.png](#) (26,186 KB) Mr. DTTH, 2014-06-25 15:28
-  [ConfigFirewall.png](#) (31,829 KB) Mr. DTTH, 2014-06-25 15:28
-  [EditConfigPHPMyadmin.png](#) (35,349 KB) Mr. DTTH, 2014-06-25 15:29
-  [EditSELinux.png](#) (27,149 KB) Mr. DTTH, 2014-06-25 15:29
-  [EditVirtualHostPHPMyadmin.png](#) (24,385 KB) Mr. DTTH, 2014-06-25 15:29
-  [httpd.png](#) (27,487 KB) Mr. DTTH, 2014-06-25 15:29
-  [InstallApacheMysql.png](#) (22,687 KB) Mr. DTTH, 2014-06-25 15:29
-  [DownloadCentos.png](#) (482,322 KB) Mr. DTTH, 2014-06-25 15:29
-  [InstallPackages.png](#) (35,238 KB) Mr. DTTH, 2014-06-25 15:30
-  [InstallPassenger.png](#) (27,368 KB) Mr. DTTH, 2014-06-25 15:30
-  [InstallphpMyadmin.png](#) (24,729 KB) Mr. DTTH, 2014-06-25 15:30
-  [InstallPHP.png](#) (40,095 KB) Mr. DTTH, 2014-06-25 15:30
-  [InstallRubyGem.png](#) (31,01 KB) Mr. DTTH, 2014-06-25 15:30
-  [InstallRuby.png](#) (31,883 KB) Mr. DTTH, 2014-06-25 15:30
-  [InstallSVN.png](#) (22,326 KB) Mr. DTTH, 2014-06-25 15:30
-  [Iptables.png](#) (34,157 KB) Mr. DTTH, 2014-06-25 15:30

-  [ListAllVersionRuby.png](#) (19,847 КБ) Mr. DTTH, 2014-06-25 15:30
-  [Redmine.png](#) (20,921 КБ) Mr. DTTH, 2014-06-25 15:30
-  [RedmineDB.png](#) (24,897 КБ) Mr. DTTH, 2014-06-25 15:30
-  [PhpMyadmin8080.png](#) (16,979 КБ) Mr. DTTH, 2014-06-25 15:30
-  [RunPHPMyadmin.png](#) (66,336 КБ) Mr. DTTH, 2014-06-25 15:30
-  [SetHostname.png](#) (15,15 КБ) Mr. DTTH, 2014-06-25 15:30
-  [SetingSVN.png](#) (32,983 КБ) Mr. DTTH, 2014-06-25 15:30
-  [YumUpdate.png](#) (27,968 КБ) Mr. DTTH, 2014-06-25 15:31