

## POWERDNS MASTER & SLAVE WITH POWERADMIN BACKEND MYSQL

Note :

OS : Ubuntu 14.04

NS1 : 192.168.100.51/24 (ns1.raisa.net). Master

NS2 : 192.168.100.52/24 (ns2.raisa.net). Slave

Host1 : 192.168.100.7/24 ([www.padli.org](http://www.padli.org), [www.mail.padli.org](http://www.mail.padli.org)).

Host2 : 192.168.100.20/24 ([www.host1.co.id](http://www.host1.co.id), [www.host2.co.id](http://www.host2.co.id)).

### NS1 MASTER

1. set ip ns1.

```
padli@ns1: ~  
padli@ns1:~$ ifconfig  
eth0      Link encap:Ethernet  HWaddr a6:53:64:60:dc:06  
          inet addr:192.168.100.51  Bcast:192.168.100.255  Mask:255.255.255.0  
          inet6 addr: fe80::a453:64ff:fe60:dc06/64 Scope:Link  
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1  
          RX packets:152 errors:0 dropped:0 overruns:0 frame:0  
          TX packets:86 errors:0 dropped:0 overruns:0 carrier:0  
          collisions:0 txqueuelen:1000  
          RX bytes:15324 (15.3 KB)  TX bytes:10515 (10.5 KB)  
  
lo        Link encap:Local Loopback  
          inet addr:127.0.0.1  Mask:255.0.0.0  
          inet6 addr: ::1/128 Scope:Host  
          UP LOOPBACK RUNNING  MTU:65536  Metric:1  
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0  
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0  
          collisions:0 txqueuelen:0  
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)  
  
padli@ns1:~$
```

2. set hostname ns1.

```
padli@ns1: ~  
padli@ns1:~$ more /etc/hostname  
ns1.raisa.net  
padli@ns1:~$
```

3. update & upgrade sistem ns1.

```
padli@ns1: ~  
padli@ns1:~$ sudo apt-get update && sudo apt-get upgrade -y
```

4. install lib bahasa indonesia.

```
padli@ns1: ~  
padli@ns1:~$ sudo apt-get install language-pack-id
```

5. install mysql.

```
padli@ns1: ~  
padli@ns1:~$ sudo apt-get install mysql-server mysql-client
```

6. set passwd user root.

```
padli@ns1: ~  
Package configuration
```

**Configuring mysql-server-5.5**

While not mandatory, it is highly recommended that you set a password for the MySQL administrative "root" user.

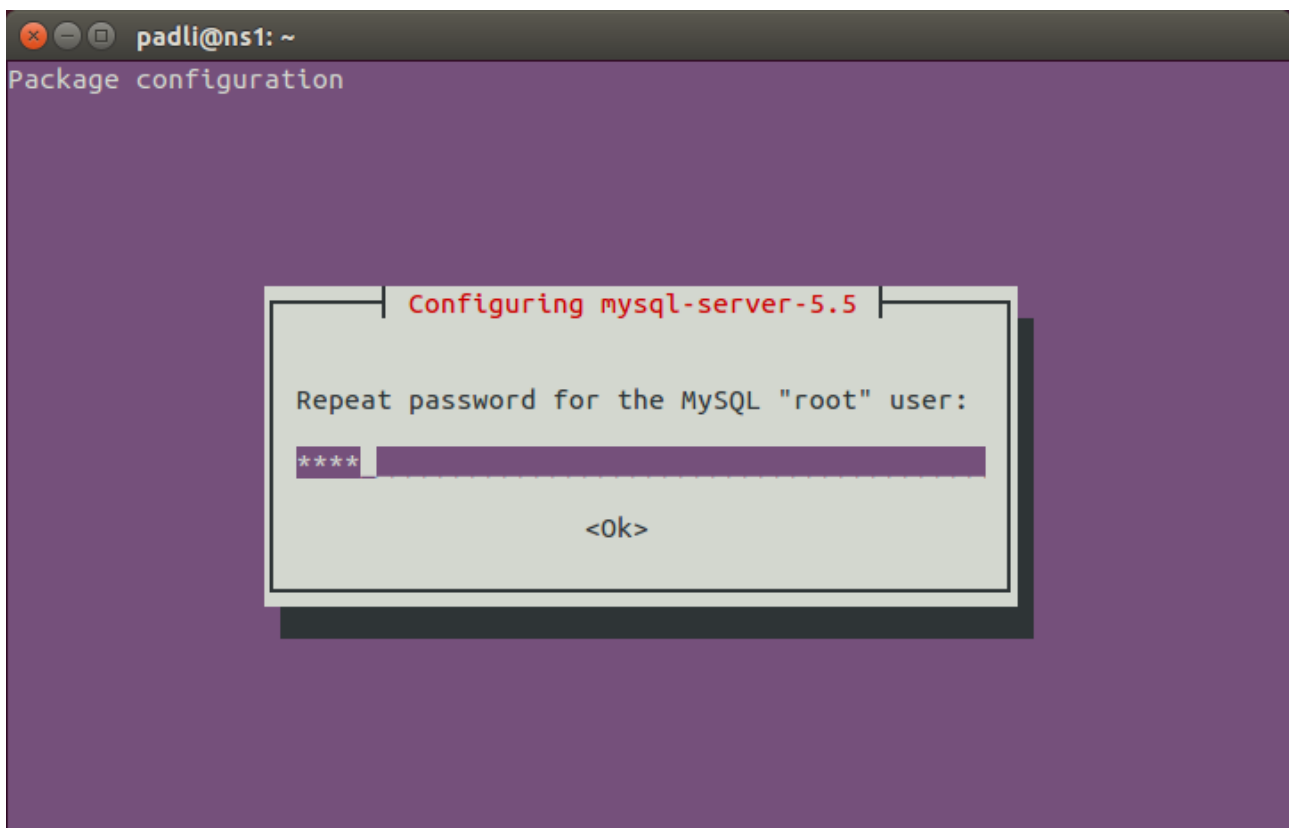
If this field is left blank, the password will not be changed.

New password for the MySQL "root" user:

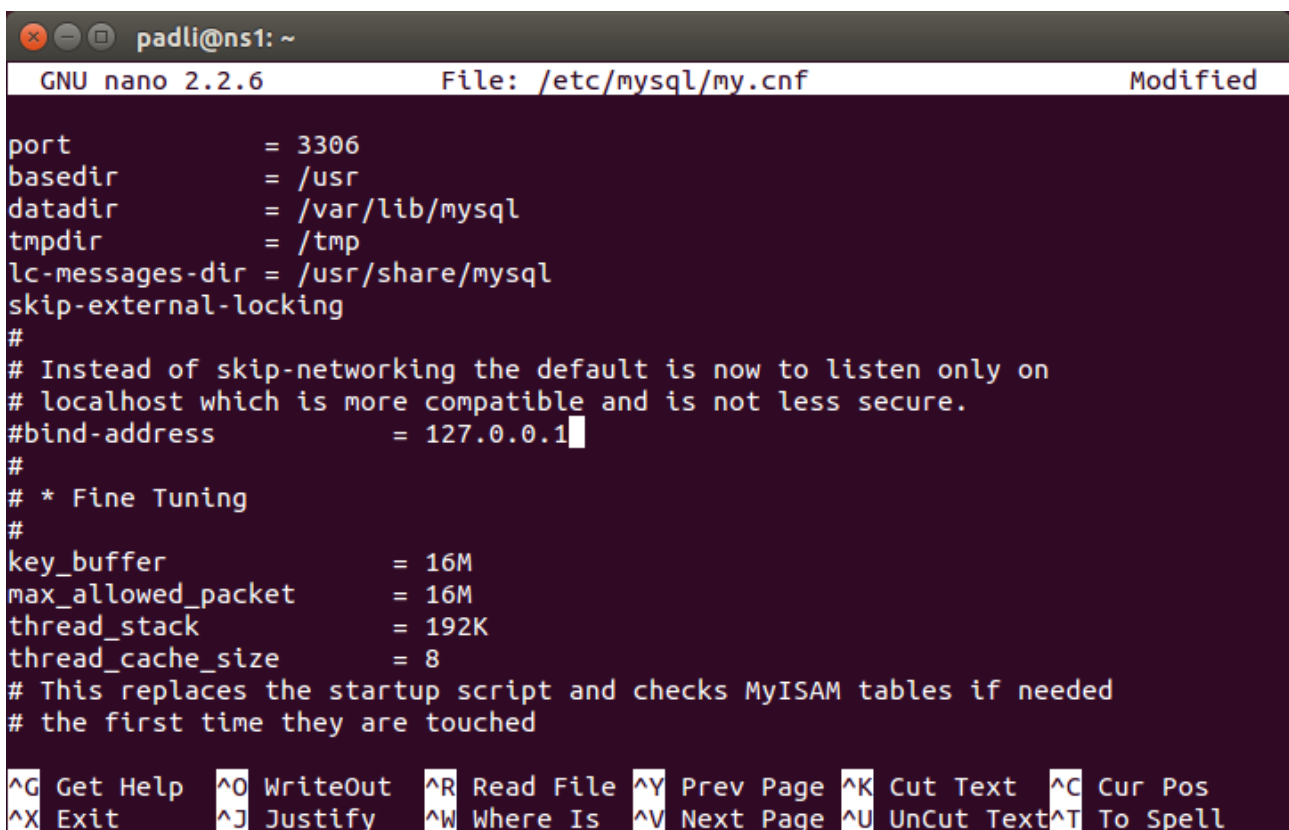
\*\*\*\*

<Ok>

7. konfirmasi passwd root.



8. edit file "nano /etc/mysql/my.cnf" set off bind-address.



9. restart.

```
padli@ns1: ~  
padli@ns1:~$ sudo reboot
```

10. install nmap.

```
padli@ns1: ~  
padli@ns1:~$ sudo apt-get install nmap
```

11. cek port yg aktif.

```
padli@ns1: ~  
padli@ns1:~$ sudo nmap localhost  
  
Starting Nmap 6.40 ( http://nmap.org ) at 2015-08-19 15:13 WIB  
Nmap scan report for localhost (127.0.0.1)  
Host is up (0.000017s latency).  
Other addresses for localhost (not scanned): 127.0.0.1  
Not shown: 998 closed ports  
PORT      STATE SERVICE  
22/tcp    open  ssh  
3306/tcp   open  mysql  
  
Nmap done: 1 IP address (1 host up) scanned in 89.43 seconds  
padli@ns1:~$
```

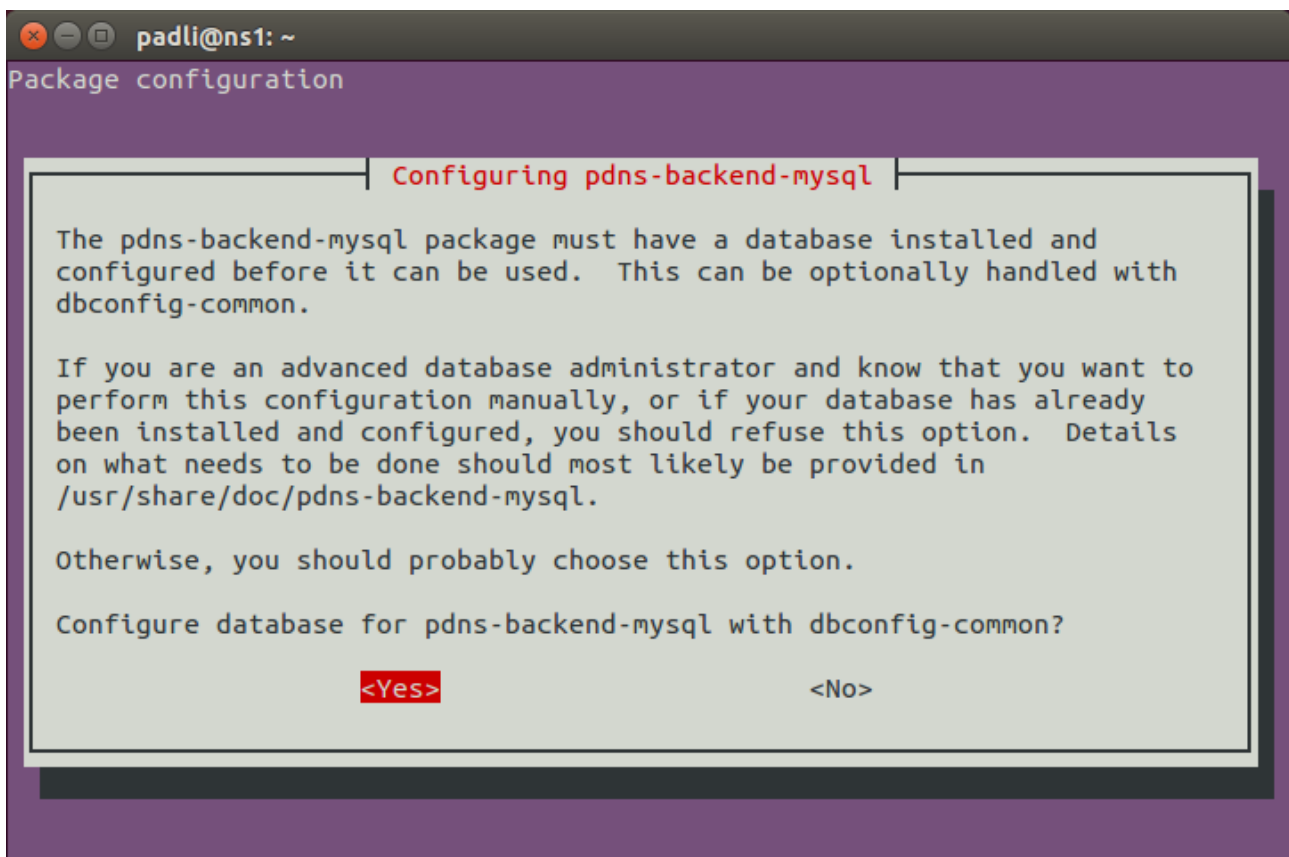
## 12. cek mysql.

```
padli@ns1: ~  
padli@ns1:~$ mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 36  
Server version: 5.5.44-0ubuntu0.14.04.1 (Ubuntu)  
  
Copyright (c) 2000, 2015, Oracle and/or its affiliates. All rights reserved.  
  
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> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
+-----+  
3 rows in set (0.03 sec)  
  
mysql> 
```

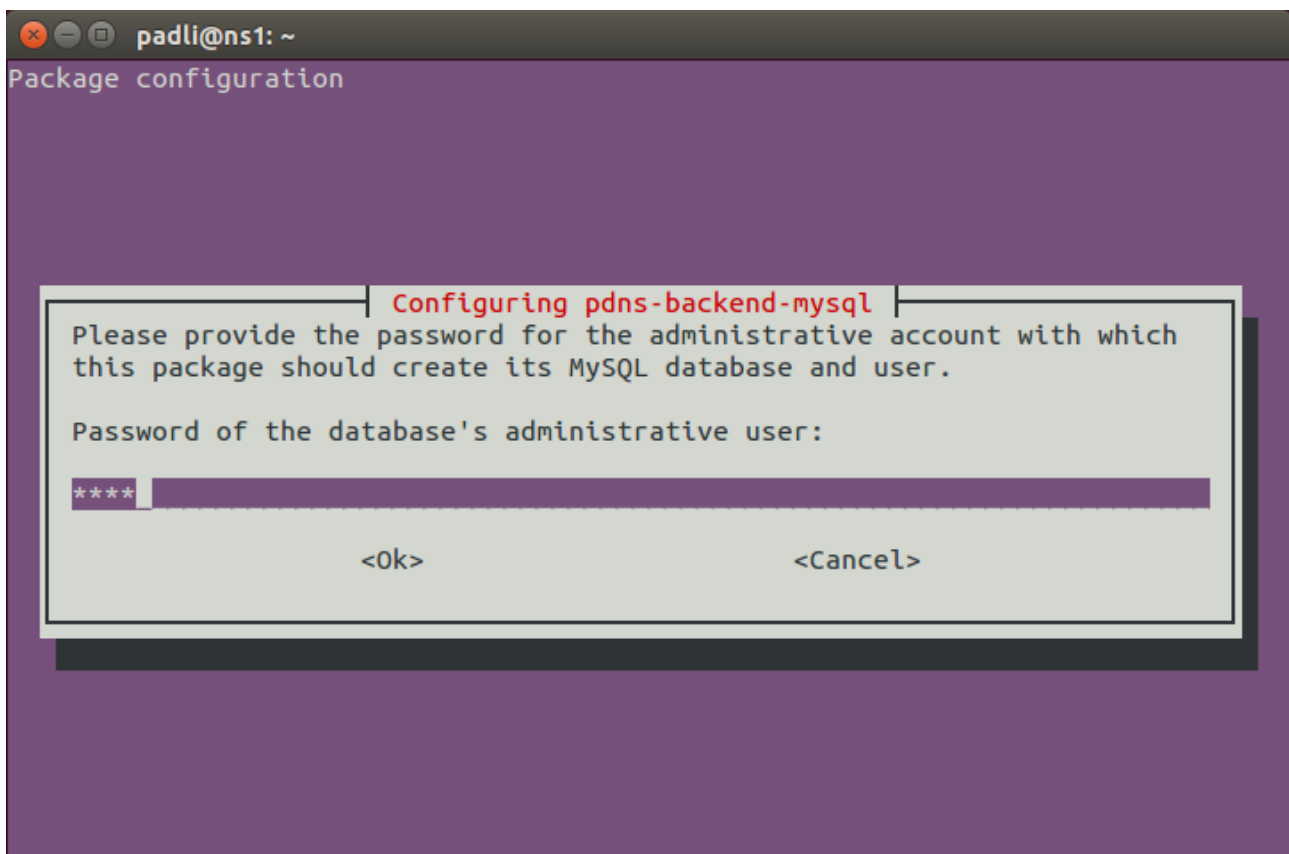
## 13. install powerdns.

```
padli@ns1: ~  
padli@ns1:~$ sudo apt-get install pdns-server pdns-backend-mysql
```

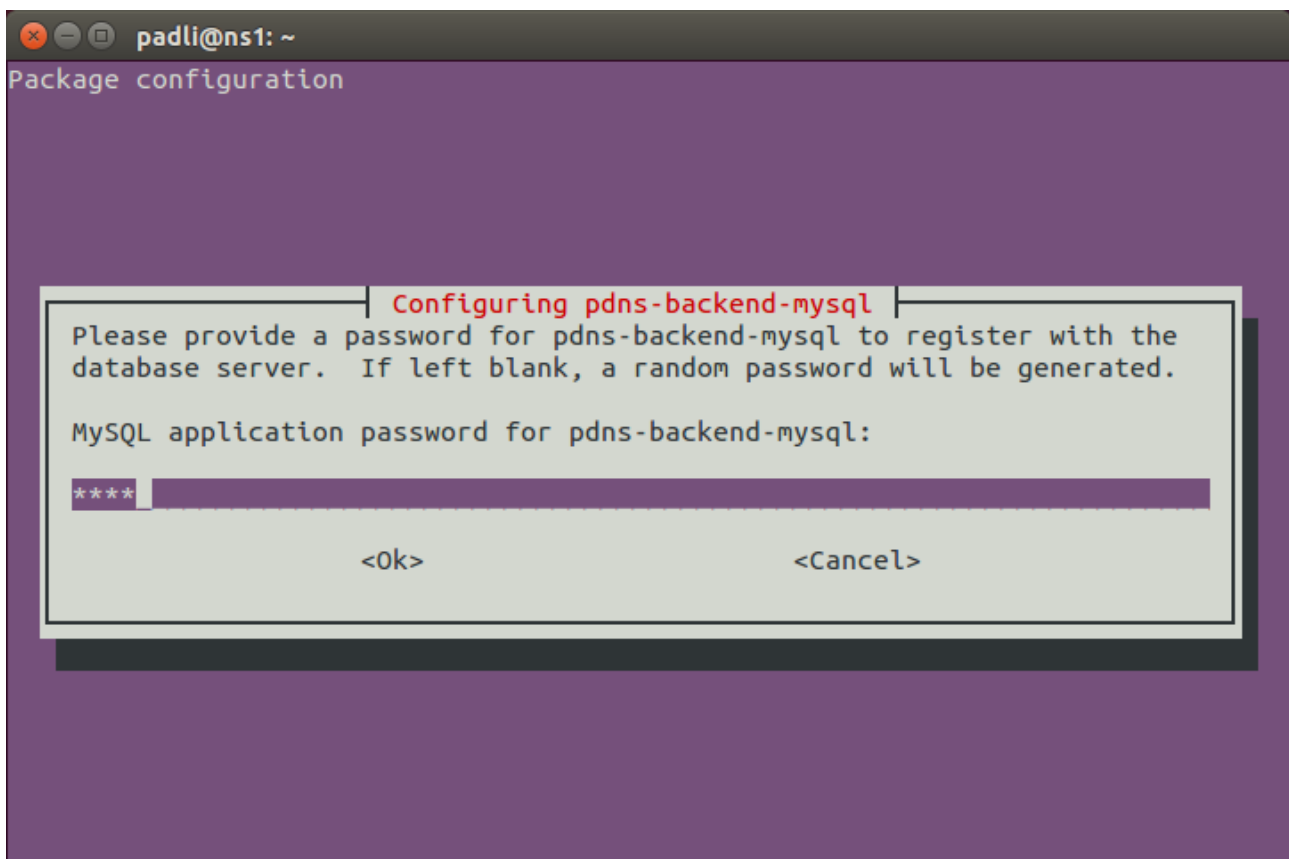
14. set yes.



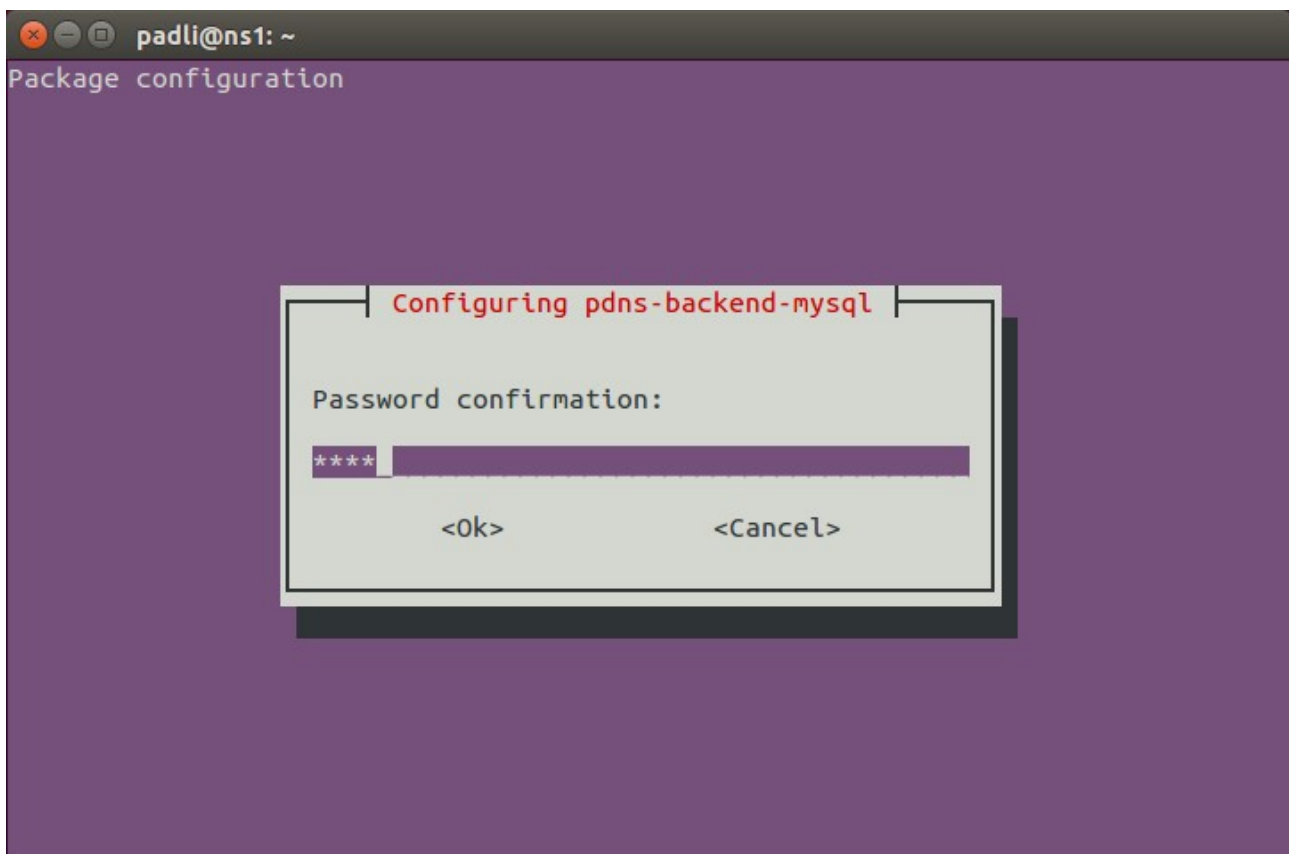
15. input root passwd mysql.



16. set passwd untuk powerdns backend mysql.



17. konfirmasi passwd.



18. buat database powerdns dan user poweruser untuk manajemen db.

```
padli@ns1: ~  
padli@ns1:~$ mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 46  
Server version: 5.5.44-0ubuntu0.14.04.1 (Ubuntu)  
  
Copyright (c) 2000, 2015, Oracle and/or its affiliates. All rights reserved.  
  
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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 powerdns;  
Query OK, 1 row affected (0.00 sec)  
  
mysql> GRANT ALL ON powerdns.* TO 'poweruser'@'%' IDENTIFIED BY 'root';  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> quit;
```

19. login user poweruser, buat tabel domains.

```
padli@ns1: ~  
padli@ns1:~$ mysql -u poweruser -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 47  
Server version: 5.5.44-0ubuntu0.14.04.1 (Ubuntu)  
  
Copyright (c) 2000, 2015, Oracle and/or its affiliates. All rights reserved.  
  
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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> USE powerdns;  
Database changed  
mysql> CREATE TABLE domains (  
-> id INT auto_increment,  
-> name VARCHAR(255) NOT NULL,  
-> master VARCHAR(128) DEFAULT NULL,  
-> last_check INT DEFAULT NULL,  
-> type VARCHAR(6) NOT NULL,  
-> notified_serial INT DEFAULT NULL,  
-> account VARCHAR(40) DEFAULT NULL,  
-> primary key (id)  
-> );  
Query OK, 0 rows affected (0.04 sec)  
  
mysql> CREATE UNIQUE INDEX name_index ON domains(name);  
Query OK, 0 rows affected (0.08 sec)  
Records: 0  Duplicates: 0  Warnings: 0  
  
mysql> 
```

20. buat tabel records.

```
padli@ns1: ~  
mysql> CREATE TABLE records (  
-> id INT auto_increment,  
-> domain_id INT DEFAULT NULL,  
-> name VARCHAR(255) DEFAULT NULL,  
-> type VARCHAR(6) DEFAULT NULL,  
-> content VARCHAR(255) DEFAULT NULL,  
-> ttl INT DEFAULT NULL,  
-> prio INT DEFAULT NULL,  
-> change_date INT DEFAULT NULL,  
-> primary key(id)  
-> );  
Query OK, 0 rows affected (0.04 sec)  
  
mysql> CREATE INDEX rec_name_index ON records(name);  
Query OK, 0 rows affected (0.04 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> CREATE INDEX nametype_index ON records(name,type);  
Query OK, 0 rows affected (0.01 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> CREATE INDEX domain_id ON records(domain_id);  
Query OK, 0 rows affected (0.05 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
mysql> 
```

21. buat tabel supermasters.

```
padli@ns1: ~  
mysql> CREATE TABLE supermasters (  
-> ip VARCHAR(25) NOT NULL,  
-> nameserver VARCHAR(255) NOT NULL,  
-> account VARCHAR(40) DEFAULT NULL  
-> );  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> show tables;  
+-----+  
| Tables_in_powerdns |  
+-----+  
| domains            |  
| records            |  
| supermasters       |  
+-----+  
3 rows in set (0.00 sec)  
  
mysql> quit;
```

22. hapus file default.

```
padli@ns1: ~  
padli@ns1:~$ sudo rm /etc/powerdns/pdns.d/*.*
```

23. buat file baru "nano /etc/powerdns/pdns.d/pdns.local.gmysql.conf" set koneksi ke db mysql.

```
padli@ns1: ~  
GNU nano 2.2.6 File: /etc/powerdns/pdns.d/pdns.local.gmysql.conf Modified  
  
# MySQL Configuration  
#  
# Launch gmysql backend  
launch=gmysql  
  
# gmysql parameters  
gmysql-host=localhost  
gmysql-dbname=powerdns  
gmysql-user=poweruser  
gmysql-password=root  
  
^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
```

24. restart servis powerdns.

```
padli@ns1: ~  
padli@ns1:~$ sudo /etc/init.d/pdns restart  
* Restarting PowerDNS Authoritative Name Server pdns [ OK ]  
padli@ns1:~$ sudo netstat -tap | grep pdns  
tcp        0      0  *:domain  *:domain  LISTEN      3113  
/pdns_server-in  
padli@ns1:~$
```

25. install lib2 yg dibutuhkan untuk instalasi powerdns.

```
padli@ns1: ~  
padli@ns1:~$ sudo apt-get install apache2 gettext libapache2-mod-php5 php5 php5-common php5-curl  
php5-dev php5-gd php-pear php5-imagick php5-ming php5-mysql php5-xmllrpc php5-mhash php5-mcrypt wget
```

26. install modul pear db (1).

```
padli@ns1: ~  
padli@ns1:~$ sudo pear install DB
```

27. install modul pear db (2).

```
padli@ns1: ~  
padli@ns1:~$ sudo pear install pear/MDB2#mysql
```

28. enable modul php5-mcrypt.

```
padli@ns1: ~  
padli@ns1:~$ sudo php5enmod mcrypt  
padli@ns1:~$ sudo /etc/init.d/apache2 restart  
* Restarting web server apache2 [ OK ]  
padli@ns1:~$
```

29. change dir "cd /var/www/html".

```
padli@ns1: /var/www/html  
padli@ns1:~$ cd /var/www/html/  
padli@ns1:/var/www/html$ rm index.html  
rm: remove write-protected regular file 'index.html'? y  
rm: cannot remove 'index.html': Permission denied  
padli@ns1:/var/www/html$ sudo rm index.html
```

30. download poweradmin.

```
padli@ns1: /var/www/html  
padli@ns1:/var/www/html$ sudo wget http://sourceforge.net/projects/poweradmin/files/poweradmin-2.1.7.tgz
```

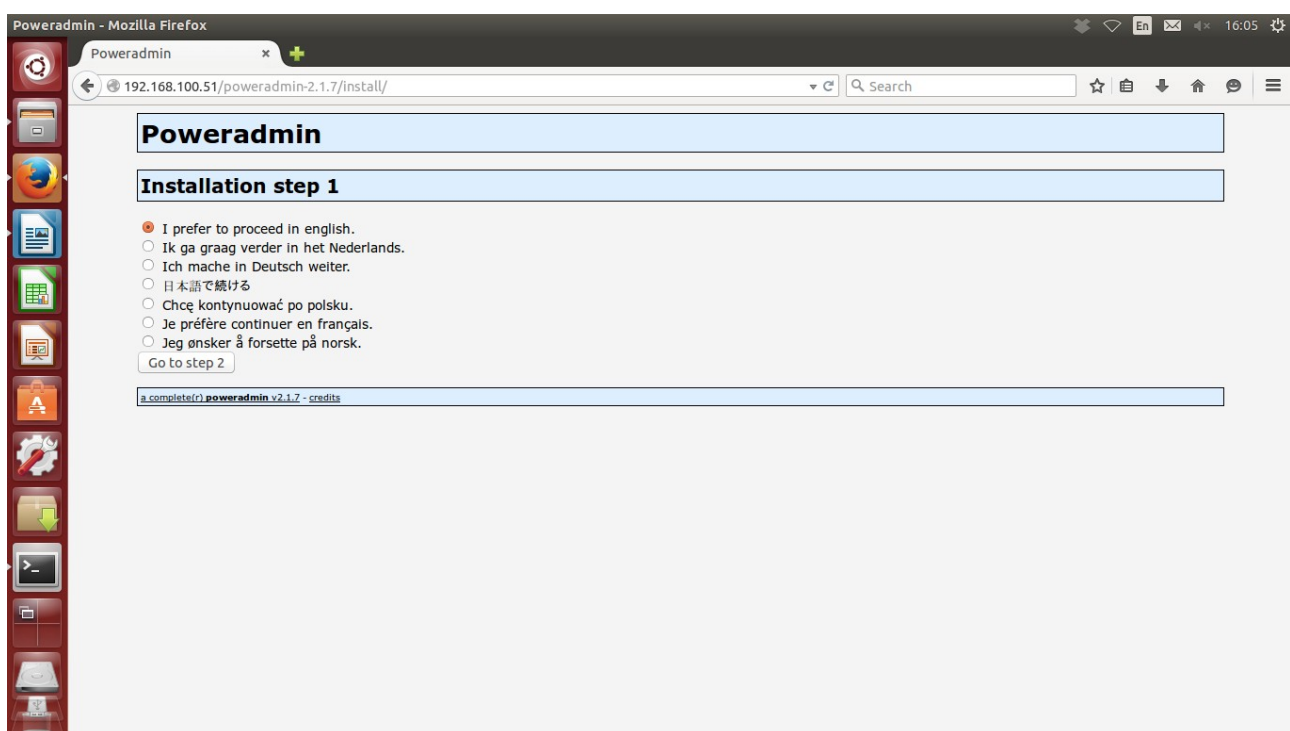
31. extract poweradmin.

```
padli@ns1: /var/www/html  
padli@ns1:/var/www/html$ ls  
poweradmin-2.1.7.tgz  
padli@ns1:/var/www/html$ sudo tar xvfz poweradmin-2.1.7.tgz
```

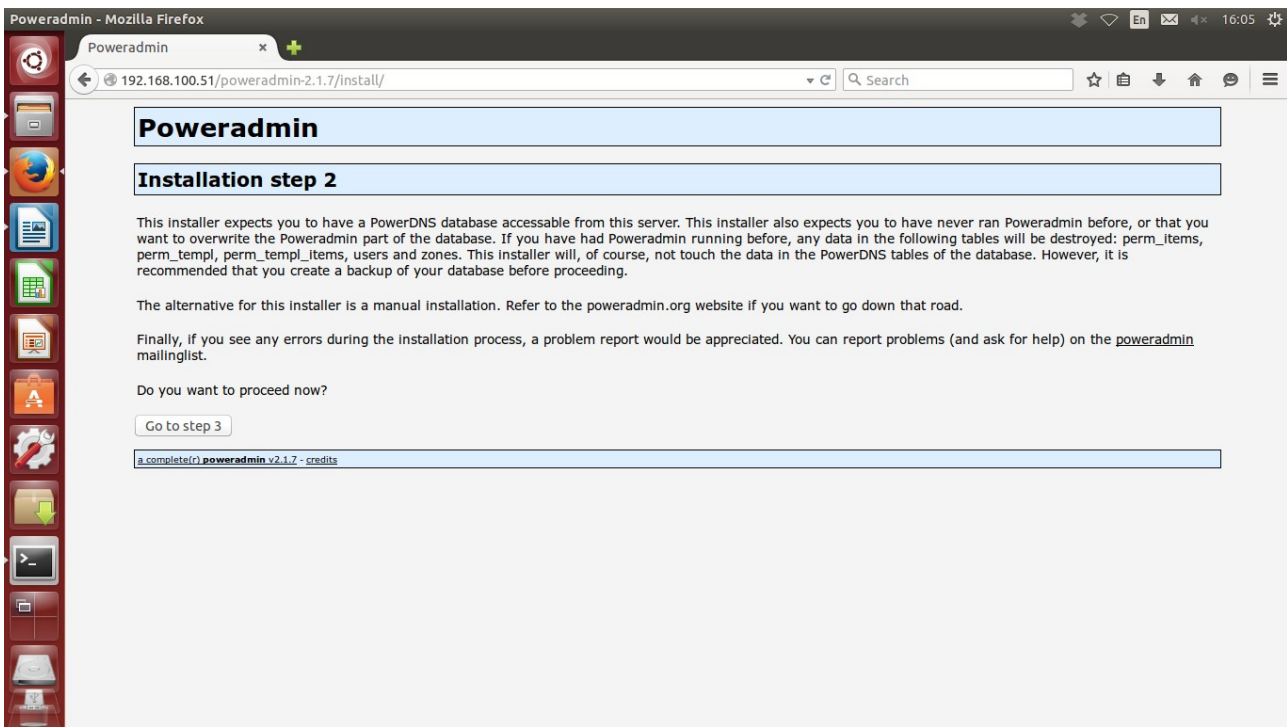
32. ubah kepemilikan dir poweradmin, restart servis apache2.

```
padli@ns1: /var/www/html
padli@ns1:/var/www/html$ ls
poweradmin-2.1.7  poweradmin-2.1.7.tgz
padli@ns1:/var/www/html$ sudo chown -R www-data:www-data /var/www/html/poweradmin-2.1.7
padli@ns1:/var/www/html$ ls -al
total 304
drwxr-xr-x  3 root    root      4096 Agu 19 15:59 .
drwxr-xr-x  3 root    root      4096 Agu 19 15:51 ..
drwxrwxr-x 10 www-data www-data 4096 Jul  5 2014 poweradmin-2.1.7
-rw-r--r--  1 root    root     296469 Jul 10 2014 poweradmin-2.1.7.tgz
padli@ns1:/var/www/html$ sudo /etc/init.d/apache2 restart
* Restarting web server apache2
padli@ns1:/var/www/html$
```

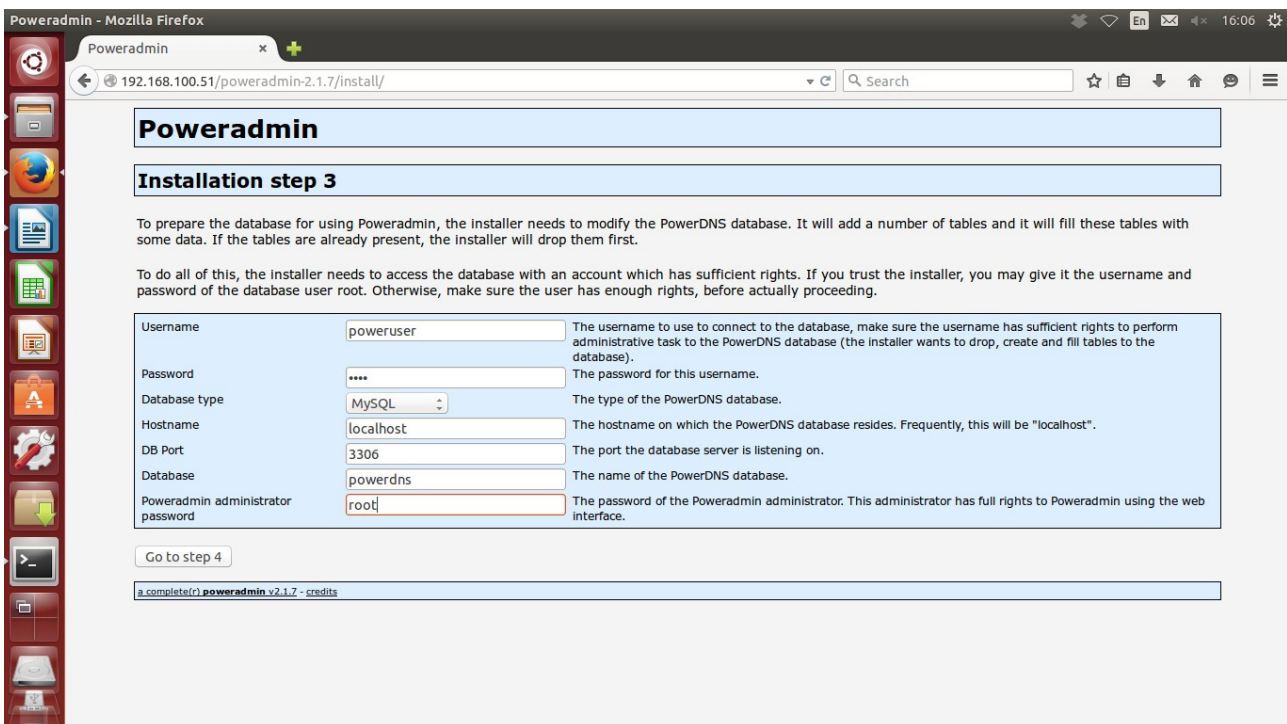
33. login poweradmin [http://ipserver/poweradmin\\$\\$\\$/install](http://ipserver/poweradmin$$$/install), next.



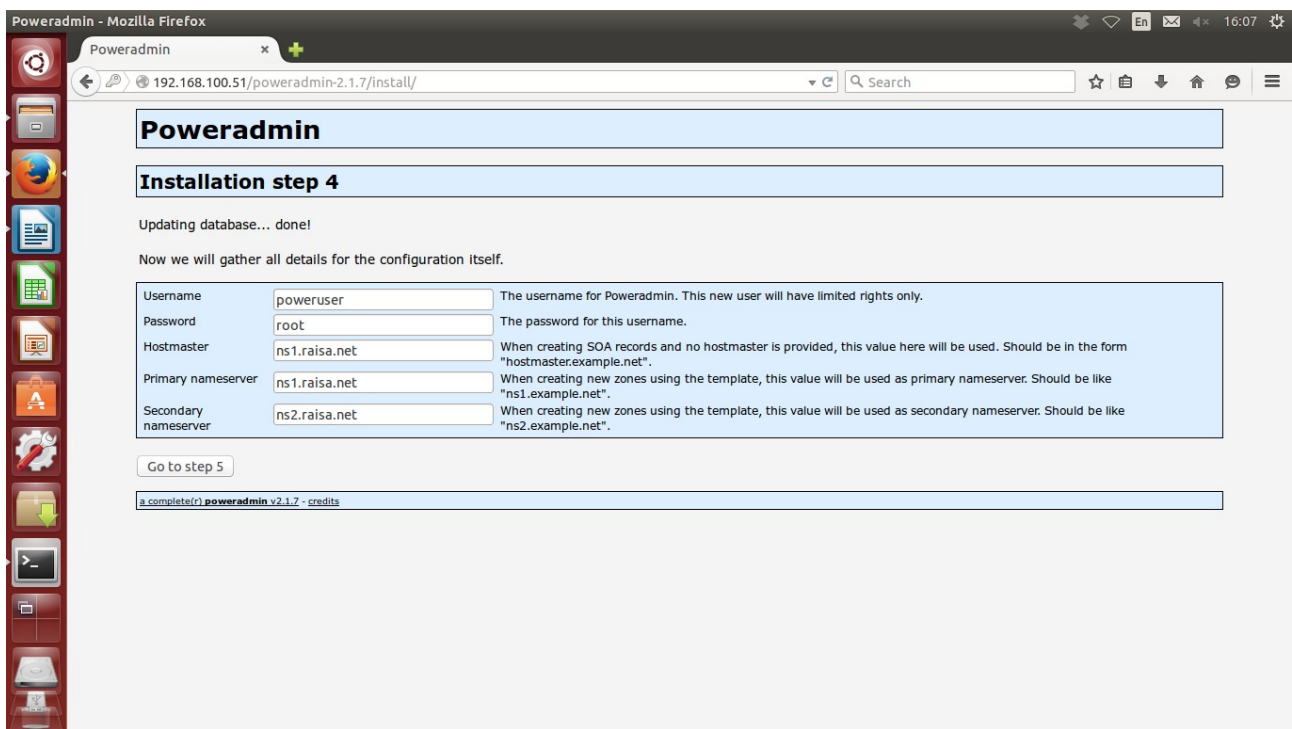
34. next.



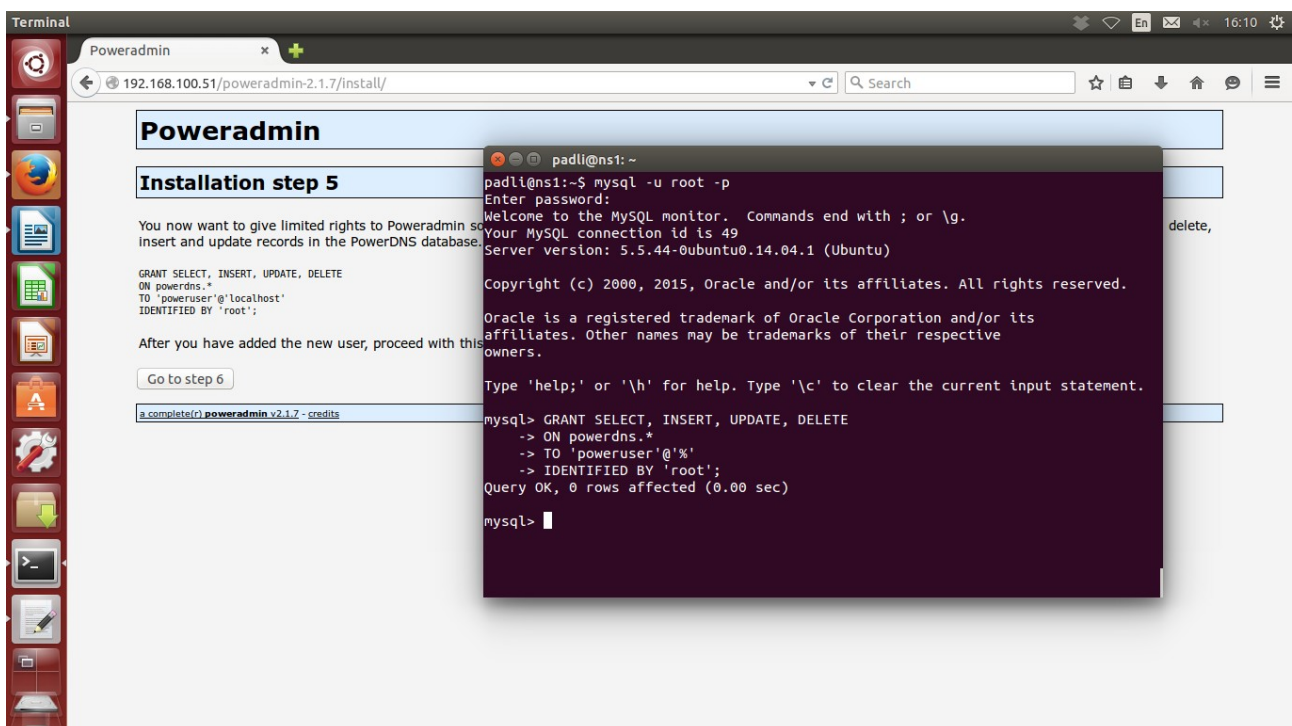
35. isikan config db mysql, sesuaikan dengan config db mysql, next.



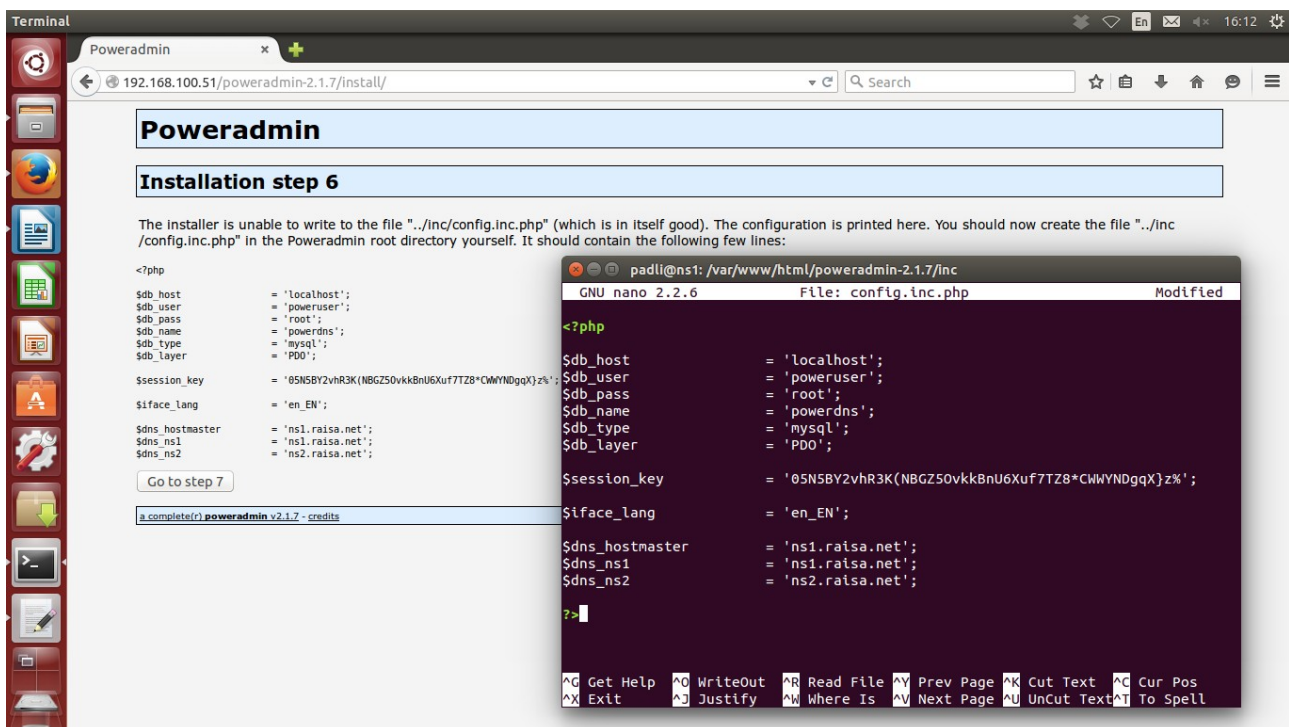
### 36. config user baru untuk poweradmin.



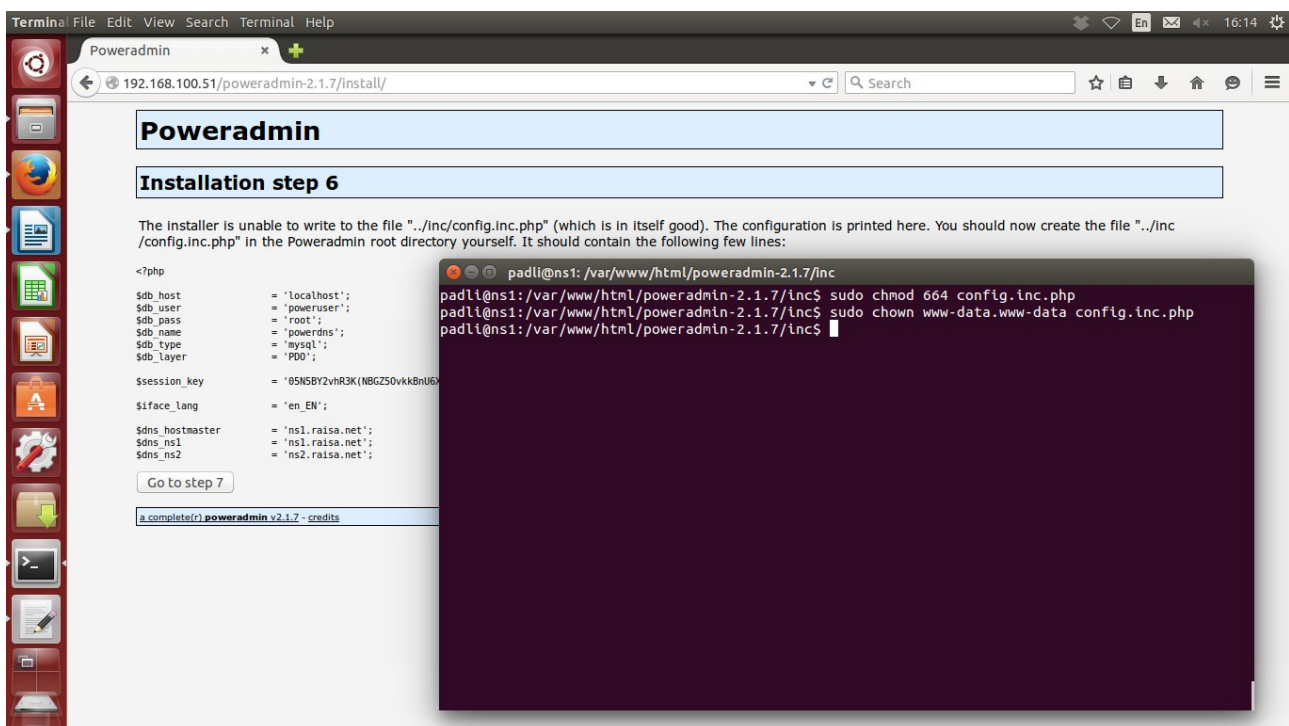
### 37. ubah 'localhost' ke '%' agar db dapat di akses dari mana saja, next.



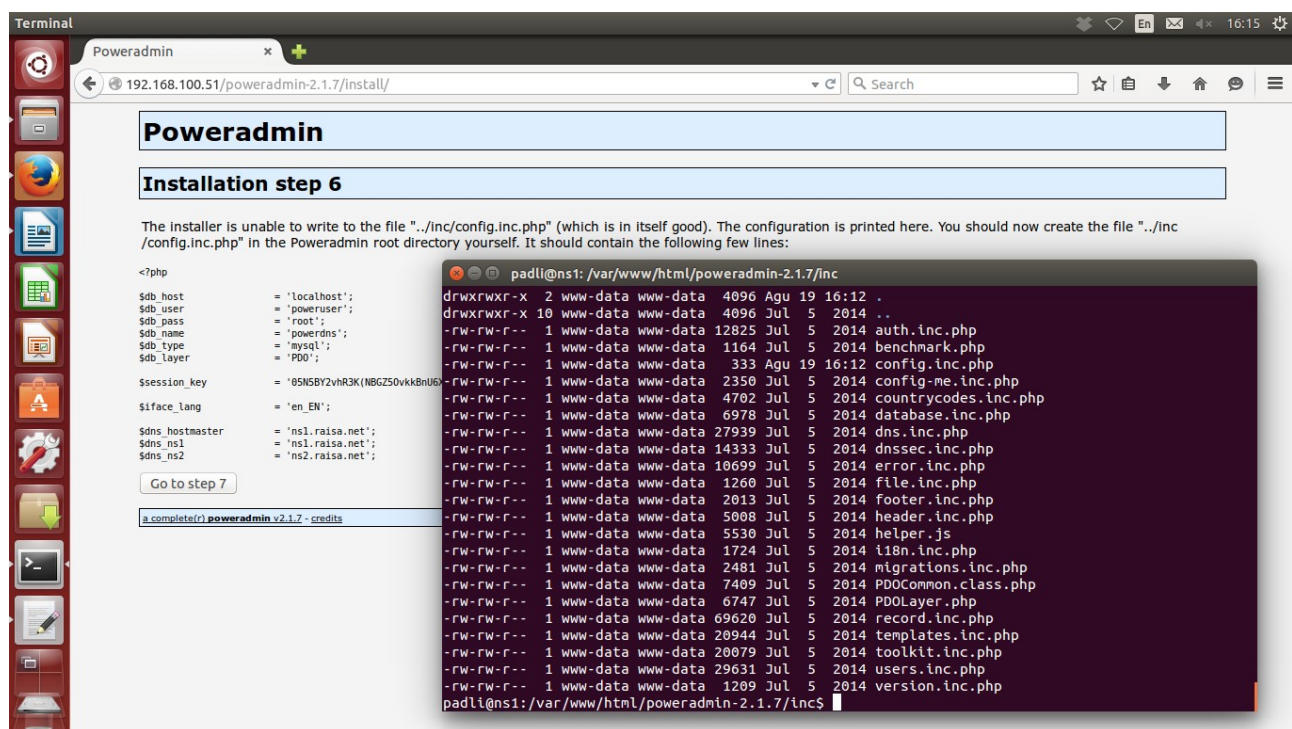
38. copy script ke file /var/www/html/poweradmin\$\$\$inc/config.inc.php.



39. ubah hak akses & kepemilikan file.



#### 40. cek file, next.



**Poweradmin**

**Installation step 6**

The installer is unable to write to the file "../inc/config.inc.php" (which is in itself good). The configuration is printed here. You should now create the file "../inc/config.inc.php" in the Poweradmin root directory yourself. It should contain the following few lines:

```
<?php
$db_host      = 'localhost';
$db_user      = 'poweruser';
$db_pass      = 'root';
$db_name      = 'powerdns';
$db_type      = 'mysql';
$db_layer     = 'PDO';

$session_key  = '85N5BY2vR3K(NBG250vkk8nU5';
$iface_lang   = 'en_EN';

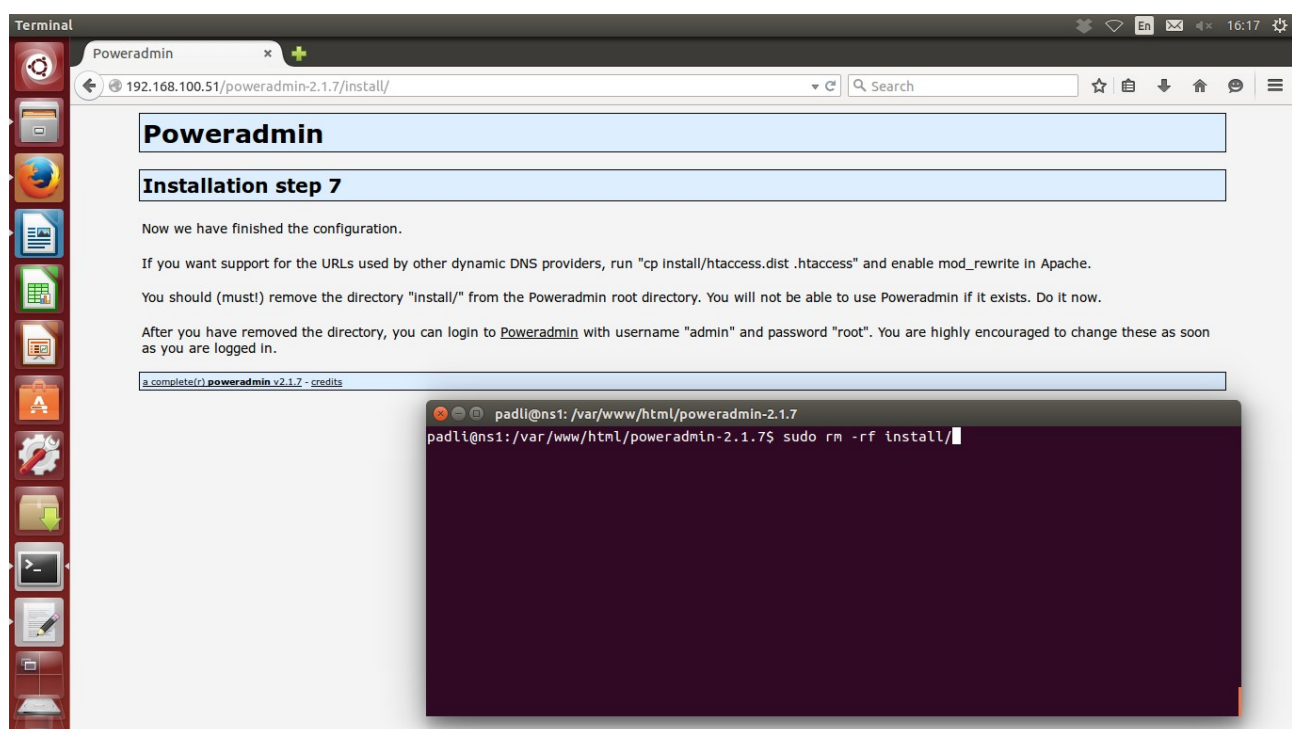
$dns_hostmaster = 'ns1.raisa.net';
$dns_ns1        = 'ns1.raisa.net';
$dns_ns2        = 'ns2.raisa.net';
```

[Go to step 7](#)

[a complete\(r\) poweradmin v2.1.7 - credits](#)

```
padli@ns1: /var/www/html/poweradmin-2.1.7/inc
drwxrwxr-x 2 www-data www-data 4096 Agu 19 16:12 .
drwxrwxr-x 10 www-data www-data 4096 Jul 5 2014 ..
-rw-rw-r-- 1 www-data www-data 12825 Jul 5 2014 auth.inc.php
-rw-rw-r-- 1 www-data www-data 1164 Jul 5 2014 benchmark.php
-rw-rw-r-- 1 www-data www-data 333 Agu 19 16:12 config.inc.php
-rw-rw-r-- 1 www-data www-data 2350 Jul 5 2014 config-me.inc.php
-rw-rw-r-- 1 www-data www-data 4702 Jul 5 2014 countrycodes.inc.php
-rw-rw-r-- 1 www-data www-data 6978 Jul 5 2014 database.inc.php
-rw-rw-r-- 1 www-data www-data 27939 Jul 5 2014 dns.inc.php
-rw-rw-r-- 1 www-data www-data 14333 Jul 5 2014 dnssec.inc.php
-rw-rw-r-- 1 www-data www-data 10699 Jul 5 2014 error.inc.php
-rw-rw-r-- 1 www-data www-data 1260 Jul 5 2014 file.inc.php
-rw-rw-r-- 1 www-data www-data 2013 Jul 5 2014 footer.inc.php
-rw-rw-r-- 1 www-data www-data 5008 Jul 5 2014 header.inc.php
-rw-rw-r-- 1 www-data www-data 5530 Jul 5 2014 helper.js
-rw-rw-r-- 1 www-data www-data 1724 Jul 5 2014 i18n.inc.php
-rw-rw-r-- 1 www-data www-data 2481 Jul 5 2014 migrations.inc.php
-rw-rw-r-- 1 www-data www-data 7409 Jul 5 2014 PDOCommon.class.php
-rw-rw-r-- 1 www-data www-data 6747 Jul 5 2014 PDOLayer.php
-rw-rw-r-- 1 www-data www-data 69620 Jul 5 2014 record.inc.php
-rw-rw-r-- 1 www-data www-data 20944 Jul 5 2014 templates.inc.php
-rw-rw-r-- 1 www-data www-data 20079 Jul 5 2014 toolkit.inc.php
-rw-rw-r-- 1 www-data www-data 29631 Jul 5 2014 users.inc.php
-rw-rw-r-- 1 www-data www-data 1209 Jul 5 2014 version.inc.php
padli@ns1: /var/www/html/poweradmin-2.1.7/inc$
```

#### 41. hapus dir instalasi, login poweradmin.



**Poweradmin**

**Installation step 7**

Now we have finished the configuration.

If you want support for the URLs used by other dynamic DNS providers, run "cp install/htaccess.dist .htaccess" and enable mod\_rewrite in Apache.

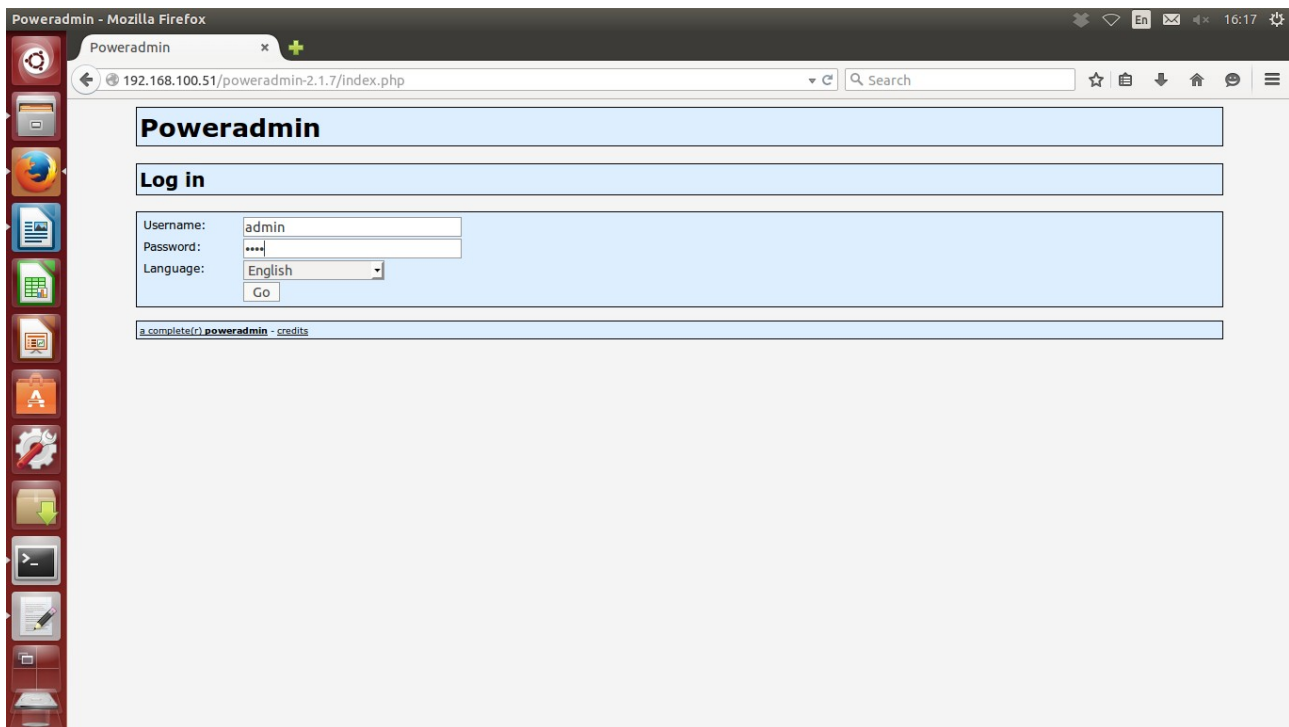
You should (must!) remove the directory "install/" from the Poweradmin root directory. You will not be able to use Poweradmin if it exists. Do it now.

After you have removed the directory, you can login to **Poweradmin** with username "admin" and password "root". You are highly encouraged to change these as soon as you are logged in.

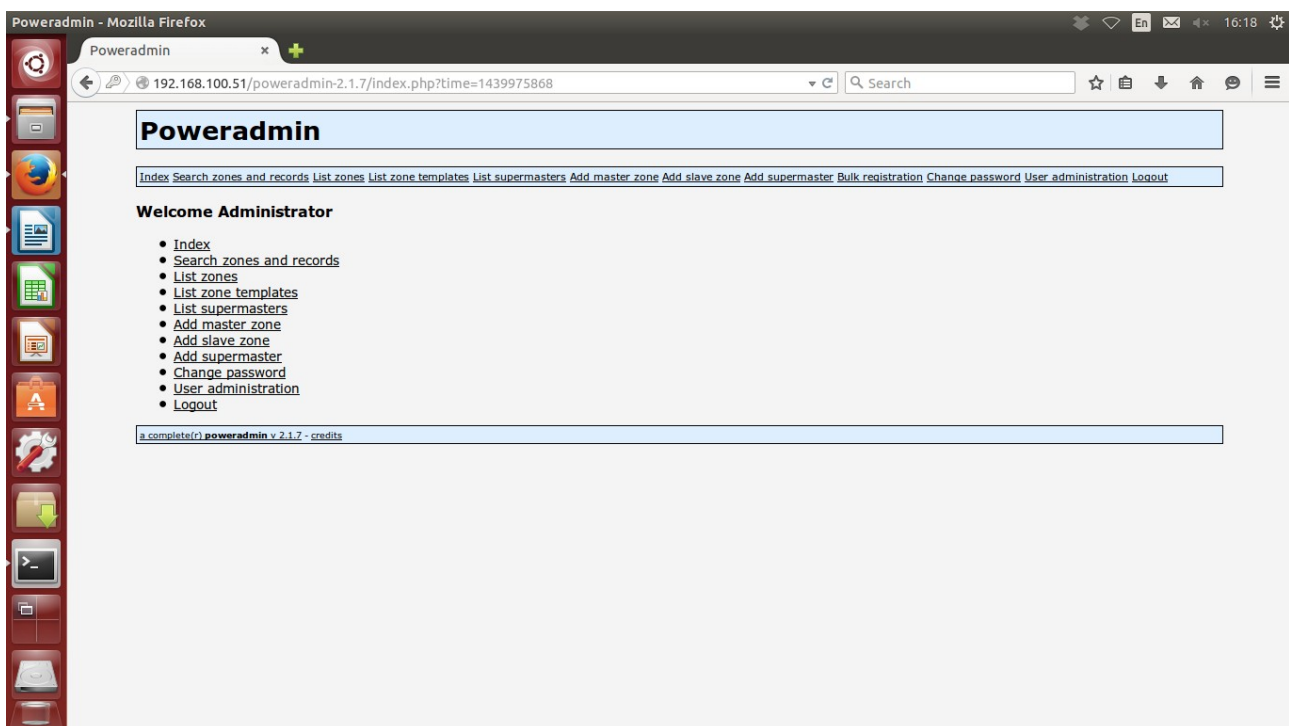
[a complete\(r\) poweradmin v2.1.7 - credits](#)

```
padli@ns1: /var/www/html/poweradmin-2.1.7
padli@ns1: /var/www/html/poweradmin-2.1.7$ sudo rm -rf install/
```

42. login admin & passwd root sesuai config.



43. halaman index poweradmin.



44. backup default file pdns.conf.

```
padli@ns1: /etc/powerdns
padli@ns1:~$ cd /etc/powerdns/
padli@ns1:/etc/powerdns$ ls
bindbackend.conf  pdns.conf  pdns.d
padli@ns1:/etc/powerdns$ sudo mv pdns.conf pdns.conf.bk
[sudo] password for padli:
padli@ns1:/etc/powerdns$
```

45. buat file baru "nano /etc/powerdns/pdns.conf" & set seperti gambar.

```
padli@ns1: /etc/powerdns
GNU nano 2.2.6      File: pdns.conf      Modified

allow-recursion=0.0.0.0/0
allow-axfr-ips=192.168.100.52/24
config-dir=/etc/powerdns
daemon=yes
disable-axfr=no
guardian=yes
local-address=0.0.0.0
local-port=53
log-dns-details=on
log-failed-updates=on
loglevel=3
module-dir=/usr/lib/powerdns
master=yes
slave=no
setgid=pdns
setuid=pdns
socket-dir=/var/run
version-string=powerdns
include-dir=/etc/powerdns/pdns.d
recursor=8.8.8.8

^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
```

46. restart & cek servis powerdns.

```
padli@ns1: /etc/powerdns
padli@ns1:/etc/powerdns$ sudo /etc/init.d/pdns restart
* Restarting PowerDNS Authoritative Name Server pdns      [ OK ]
padli@ns1:/etc/powerdns$ sudo netstat -tap | grep pdns
tcp        0      0 *:domain                *:*                LISTEN
1436/pdns_server-in
padli@ns1:/etc/powerdns$
```

47. ubah default nameserver.

```
padli@ns1: /etc/powerdns
GNU nano 2.2.6      File: /etc/network/interfaces      Modified

# 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

auto eth0
iface eth0 inet static
    address 192.168.100.51
    netmask 255.255.255.0
    network 192.168.100.0
    broadcast 192.168.100.255
    gateway 192.168.100.1
    dns-nameserver 192.168.100.51 192.168.100.52

^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
```

48. restart.

```
padli@ns1: /etc/powerdns
padli@ns1:/etc/powerdns$ sudo reboot
```

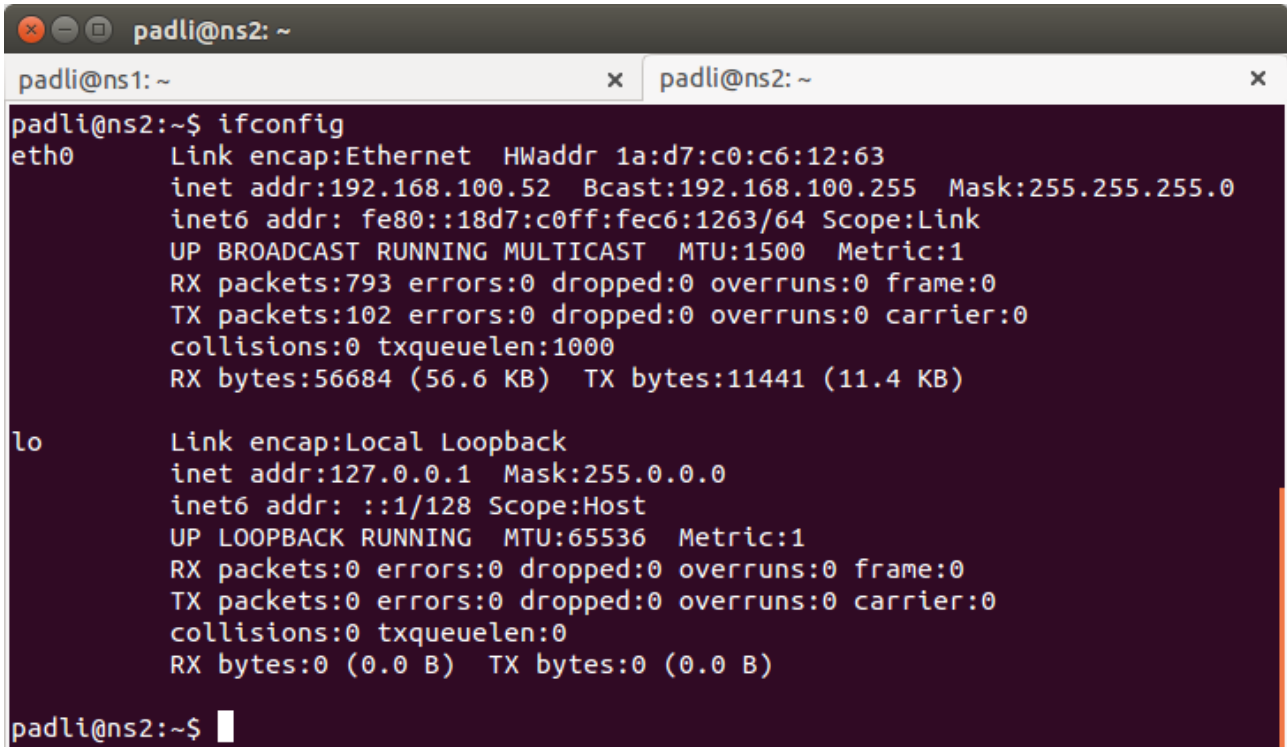
49. setelah restart, cek nameserver.

```
padli@ns1: ~
padli@ns1:~$ more /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
#     DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.100.51
nameserver 192.168.100.52
padli@ns1:~$
```

## NS2 SLAVE

50. lakukan hal yg sama pada mesin ns2 (langkah 1 s.d 43).

51. cek ip ns2.

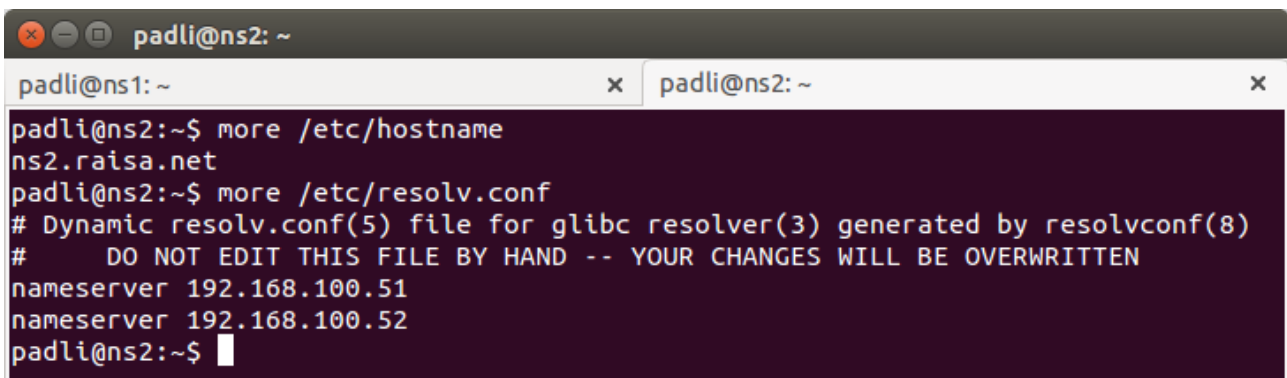
A terminal window titled 'padli@ns2: ~' with two tabs: 'padli@ns1: ~' and 'padli@ns2: ~'. The terminal shows the output of the 'ifconfig' command. It displays details for the 'eth0' interface (Ethernet, IP 192.168.100.52) and the 'lo' interface (Local Loopback, IP 127.0.0.1).

```
padli@ns2:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 1a:d7:c0:c6:12:63
          inet addr:192.168.100.52  Bcast:192.168.100.255  Mask:255.255.255.0
          inet6 addr: fe80::18d7:c0ff:fec6:1263/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:793 errors:0 dropped:0 overruns:0 frame:0
          TX packets:102 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:56684 (56.6 KB)  TX bytes:11441 (11.4 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

padli@ns2:~$
```

52. cek hostname & nameserver ns2.

A terminal window titled 'padli@ns2: ~' with two tabs: 'padli@ns1: ~' and 'padli@ns2: ~'. The terminal shows the output of 'more /etc/hostname' and 'more /etc/resolv.conf'.

```
padli@ns2:~$ more /etc/hostname
ns2.raisa.net
padli@ns2:~$ more /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
#     DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.100.51
nameserver 192.168.100.52
padli@ns2:~$
```

53. backup file default pdns.conf.

```
padli@ns2: /etc/powerdns
padli@ns1: ~ x padli@ns2: /etc/powerdns x
padli@ns2:/$ cd /etc/powerdns/
padli@ns2:/etc/powerdns$ ls
bindbackend.conf pdns.conf pdns.d
padli@ns2:/etc/powerdns$ sudo mv pdns.conf pdns.conf.bk
sudo: unable to resolve host ns2.raisa.net
padli@ns2:/etc/powerdns$ ls
bindbackend.conf pdns.conf.bk pdns.d
padli@ns2:/etc/powerdns$
```

54. buat baru file "nano /etc/powerdns/pdns.conf" set sebagai slave.

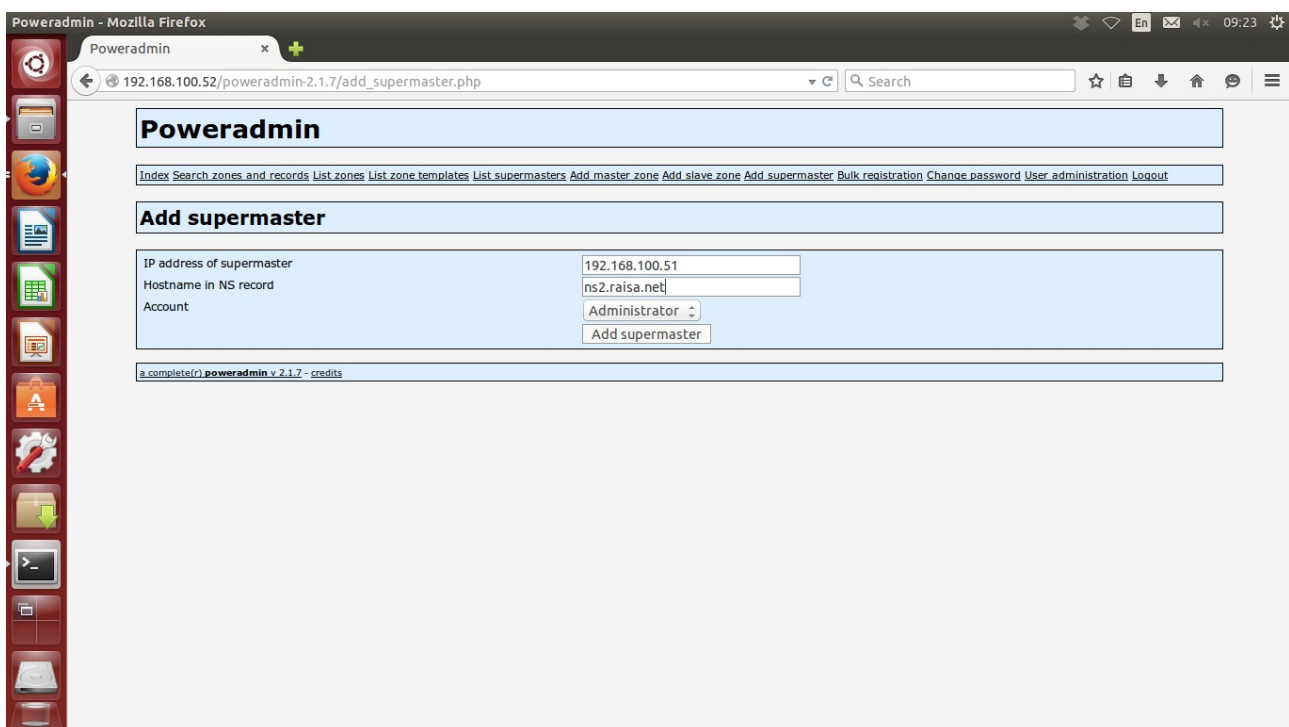
```
padli@ns2: /etc/powerdns
padli@ns1: ~ x padli@ns2: /etc/powerdns x
GNU nano 2.2.6 File: pdns.conf Modified
allow-recursion=0.0.0.0/0
config-dir=/etc/powerdns
daemon=yes
disable-axfr=yes
guardian=yes
local-address=0.0.0.0
local-port=53
log-dns-details=on
log-failed-updates=on
loglevel=3
module-dir=/usr/lib/powerdns
master=no
slave=yes
slave-cycle-interval=60
setgid=pdns
setuid=pdns
socket-dir=/var/run
version-string=powerdns
include-dir=/etc/powerdns/pdns.d
recursor=8.8.8.8

^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
```

55. restart & cek servis powerdns.

```
padli@ns2: /etc/powerdns
padli@ns1: ~ x padli@ns2: /etc/powerdns x
padli@ns2:/etc/powerdns$ sudo /etc/init.d/pdns restart
sudo: unable to resolve host ns2.raisa.net
* Restarting PowerDNS Authoritative Name Server pdns [ OK ]
padli@ns2:/etc/powerdns$ sudo netstat -tap | grep pdns
sudo: unable to resolve host ns2.raisa.net
tcp        0      0 *:domain                :::*               LISTEN
1484/pdns_server-in
padli@ns2:/etc/powerdns$
```

56. tambahkan supermaster (ip master, nameserver slave, admin).



57. cek list supermaster.

Poweradmin - Mozilla Firefox

Poweradmin x

192.168.100.52/poweradmin-2.1.7/list\_supermasters.php

Search

## Poweradmin

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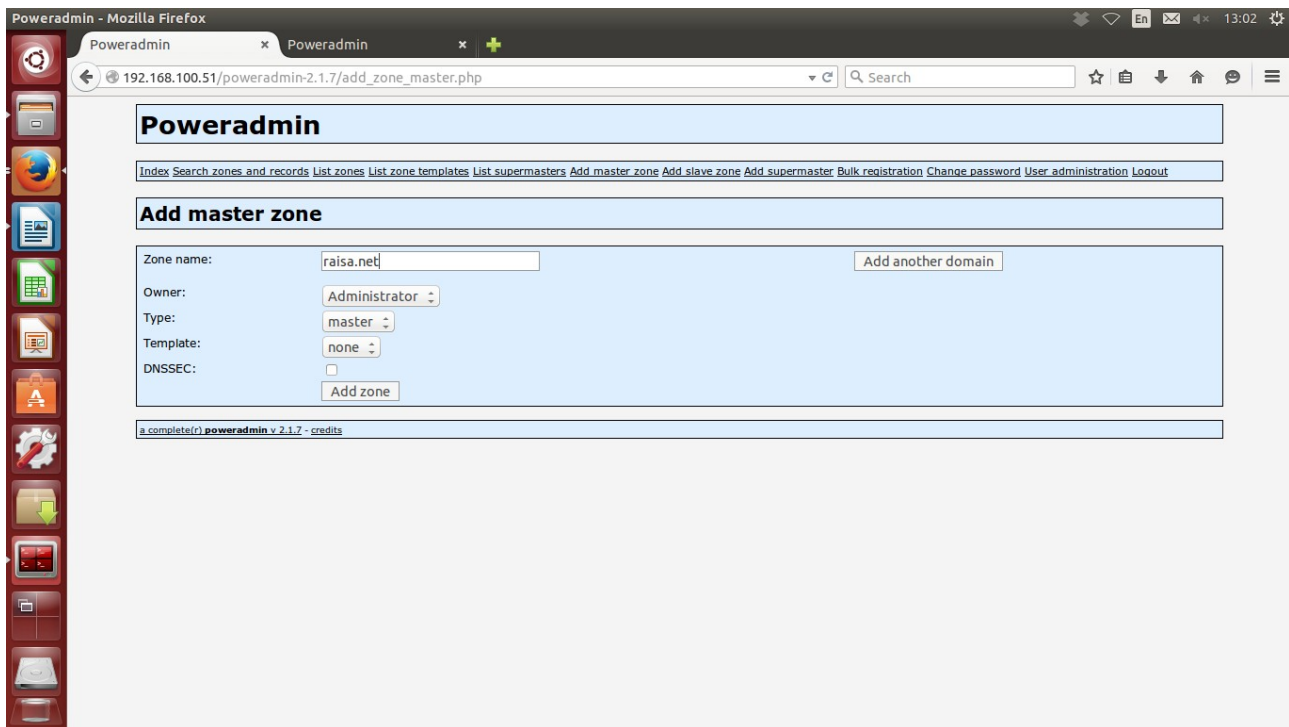
### List supermasters

| IP address of supermaster | Hostname in NS record | Account |
|---------------------------|-----------------------|---------|
| 192.168.100.51            | ns2.raisa.net         | admin   |

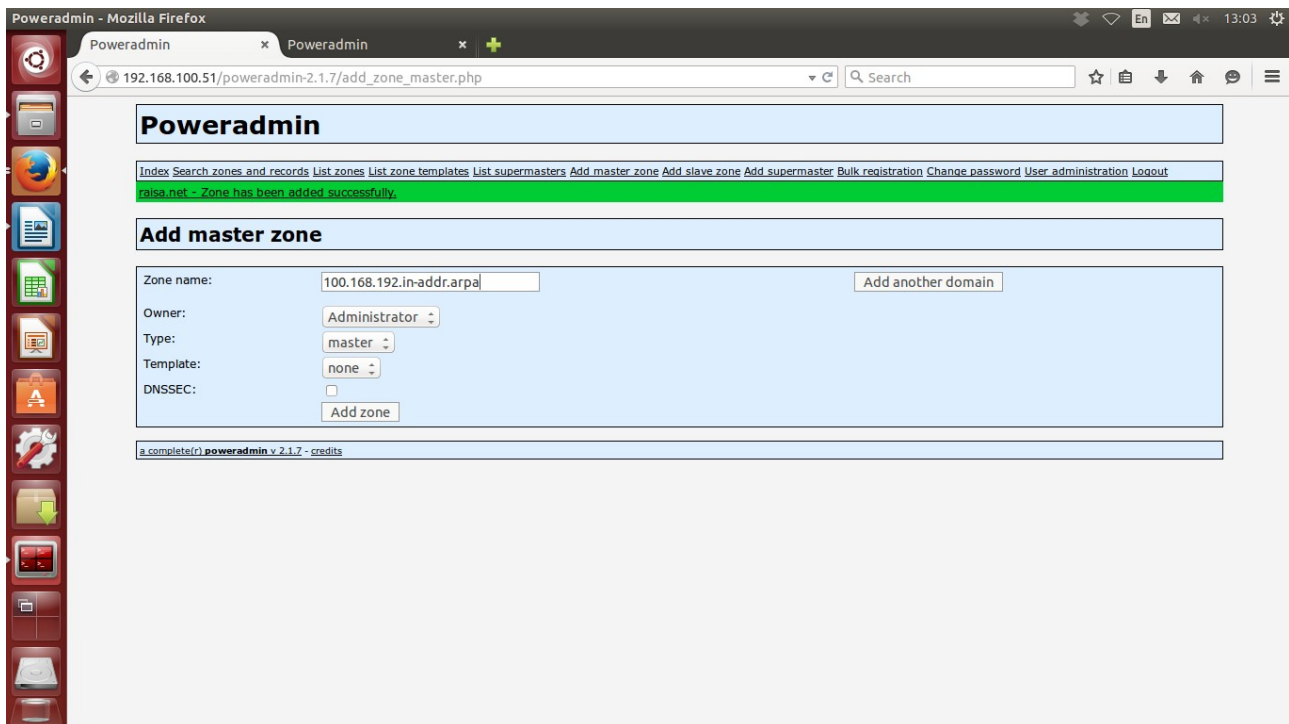
[a complete\(r\) poweradmin v.2.1.7 - credits](#)

## TES KONFIGURASI (NS1, NS2 & HOST)

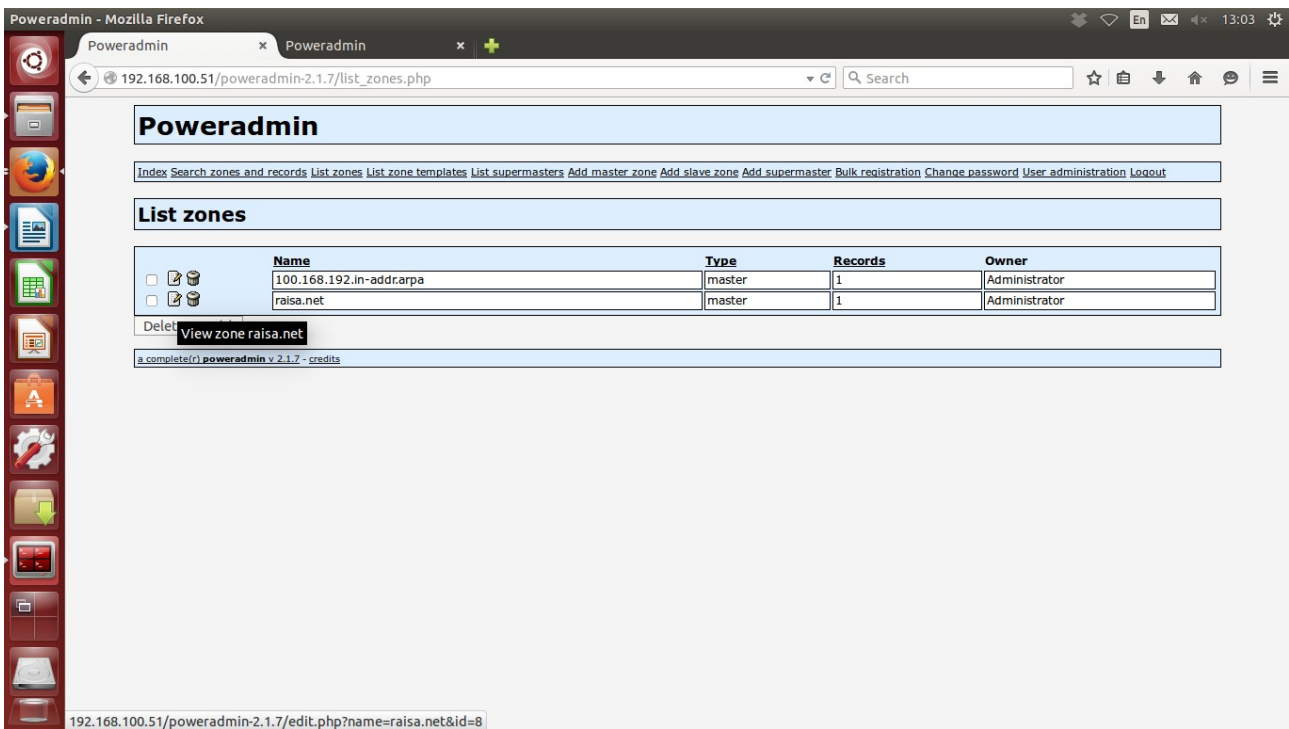
58. tambahkan master zone raisa.net (NS1).



59. tambahkan master zone reverse (NS1).



60. cek list master zone & edit master zone raisa.net (NS1).



Poweradmin - Mozilla Firefox

Poweradmin

192.168.100.51/poweradmin-2.1.7/list\_zones.php

### Poweradmin

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#### List zones

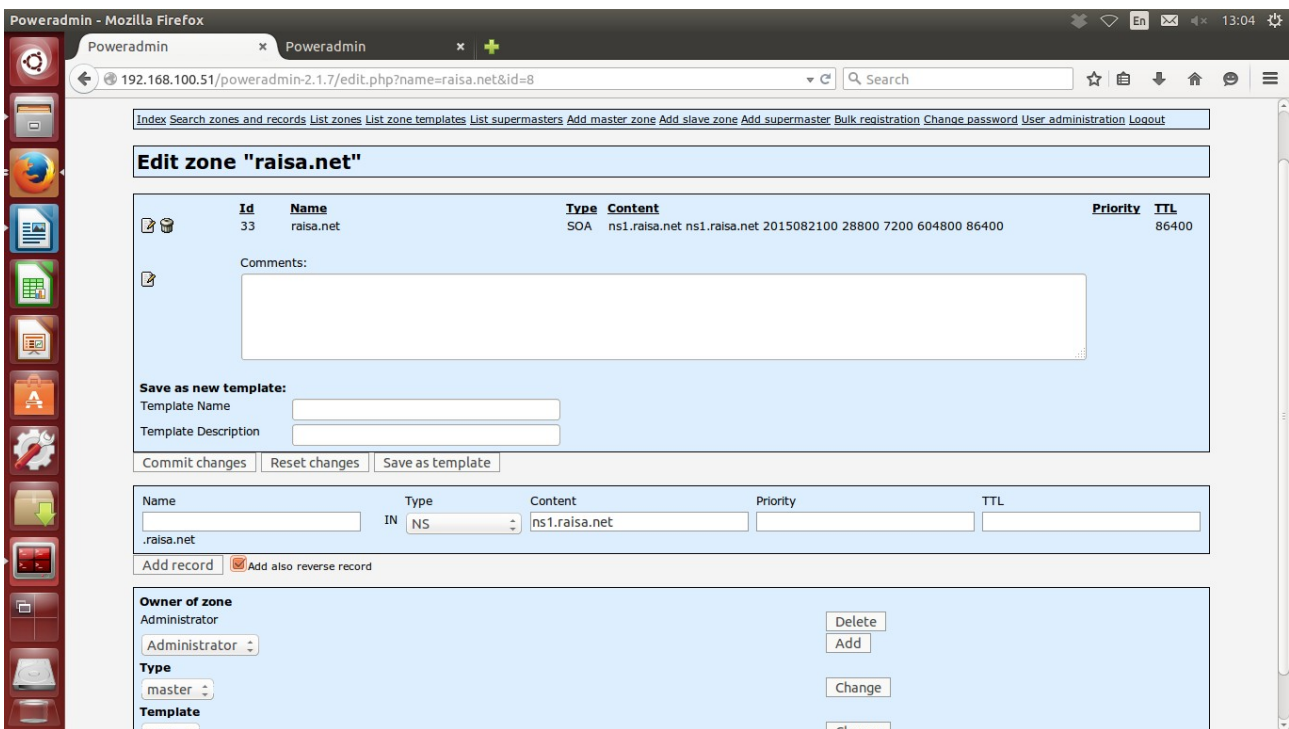
|                          | Name                     | Type   | Records | Owner         |
|--------------------------|--------------------------|--------|---------|---------------|
| <input type="checkbox"/> | 100.168.192.in-addr.arpa | master | 1       | Administrator |
| <input type="checkbox"/> | raisa.net                | master | 1       | Administrator |

[Delete](#) [View zone raisa.net](#)

a complete(r) poweradmin v 2.1.7 - credits

192.168.100.51/poweradmin-2.1.7/edit.php?name=raisa.net&id=8

61. tambahkan record NS (nameserver), cek list add also reverse record (NS1).



Poweradmin - Mozilla Firefox

Poweradmin

192.168.100.51/poweradmin-2.1.7/edit.php?name=raisa.net&id=8

### Edit zone "raisa.net"

| Id | Name      | Type | Content                                                        | Priority | TTL   |
|----|-----------|------|----------------------------------------------------------------|----------|-------|
| 33 | raisa.net | NS   | ns1.raisa.net ns1.raisa.net 2015082100 28800 7200 604800 86400 |          | 86400 |

Comments:

Save as new template:

Template Name:

Template Description:

[Commit changes](#) [Reset changes](#) [Save as template](#)

| Name       | Type  | Content       | Priority | TTL |
|------------|-------|---------------|----------|-----|
| .raisa.net | IN NS | ns1.raisa.net |          |     |

[Add record](#) ☒ Add also reverse record

Owner of zone: Administrator [Delete](#) [Add](#)

Type: master [Change](#)

Template: [Change](#)

62. tambahkan record lagi sehingga seperti list di gambar (NS1).

Poweradmin - Mozilla Firefox

Poweradmin x Poweradmin

192.168.100.51/poweradmin-2.1.7/edit.php?name=raisa.net&id=8

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### Edit zone "raisa.net"

|  | <b>Id</b> | <b>Name</b>   | <b>Type</b> | <b>Content</b>                                                 | <b>Priority</b> | <b>TTL</b> |
|--|-----------|---------------|-------------|----------------------------------------------------------------|-----------------|------------|
|  | 33        | raisa.net     | SOA         | ns1.raisa.net ns1.raisa.net 2015082104 28800 7200 604800 86400 |                 | 86400      |
|  | 35        | raisa.net     | NS          | ns1.raisa.net                                                  | 0               | 86400      |
|  | 36        | raisa.net     | NS          | ns2.raisa.net                                                  | 0               | 86400      |
|  | 38        | ns1.raisa.net | A           | 192.168.100.51                                                 | 0               | 86400      |
|  | 40        | ns2.raisa.net | A           | 192.168.100.52                                                 | 0               | 86400      |

Comments:

Save as new template:

Template Name:

Template Description:

| Name                                    | Type                              | Content              | Priority             | TTL                  |
|-----------------------------------------|-----------------------------------|----------------------|----------------------|----------------------|
| <input type="text" value=".raisa.net"/> | IN <input type="text" value="A"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

☐ Add also reverse record

63. cek list master record reverse (NS1).

Poweradmin - Mozilla Firefox

Poweradmin x Poweradmin

192.168.100.51/poweradmin-2.1.7/edit.php?name=100.168.192.in-addr.arpa&id=9

## Poweradmin

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### Edit zone "100.168.192.in-addr.arpa"

|  | <b>Id</b> | <b>Name</b>                 | <b>Type</b> | <b>Content</b>                                                 | <b>Priority</b> | <b>TTL</b> |
|--|-----------|-----------------------------|-------------|----------------------------------------------------------------|-----------------|------------|
|  | 34        | 100.168.192.in-addr.arpa    | SOA         | ns1.raisa.net ns1.raisa.net 2015082102 28800 7200 604800 86400 |                 | 86400      |
|  | 37        | 51.100.168.192.in-addr.arpa | PTR         | ns1.raisa.net                                                  | 0               | 86400      |
|  | 39        | 52.100.168.192.in-addr.arpa | PTR         | ns2.raisa.net                                                  | 0               | 86400      |

Comments:

Save as new template:

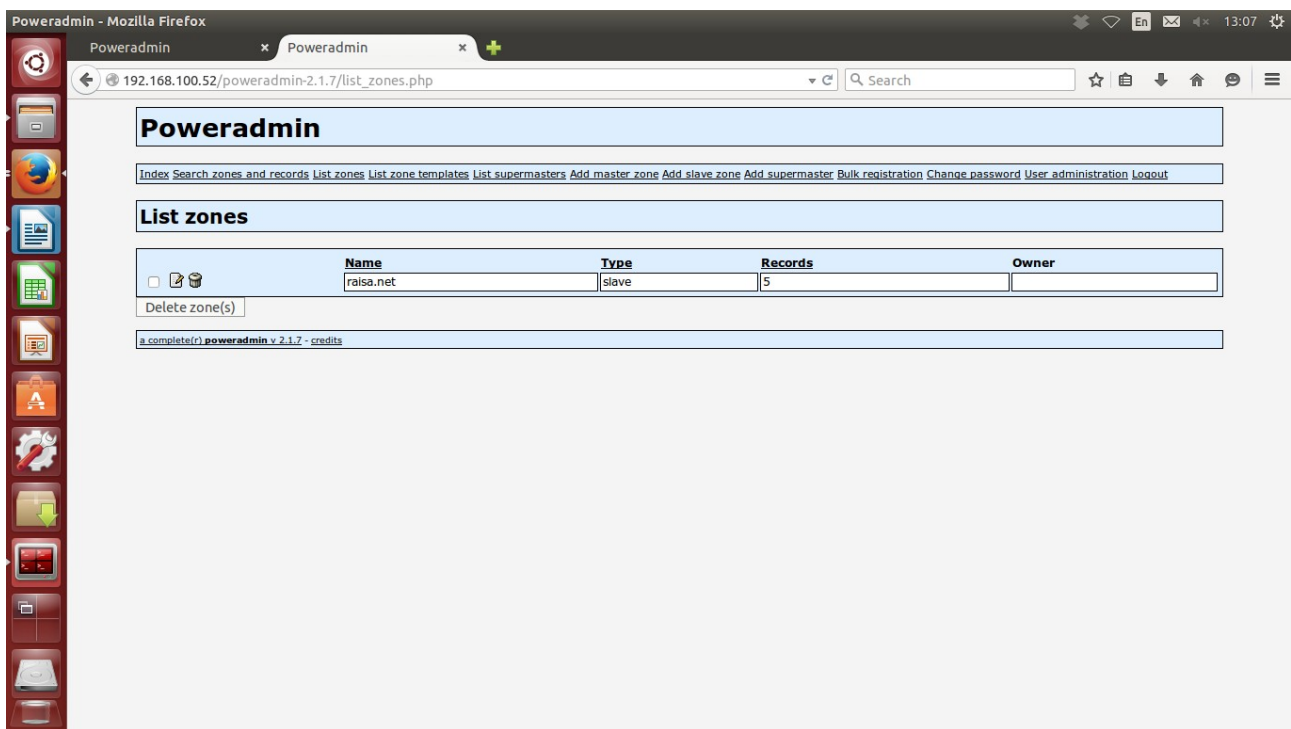
Template Name:

Template Description:

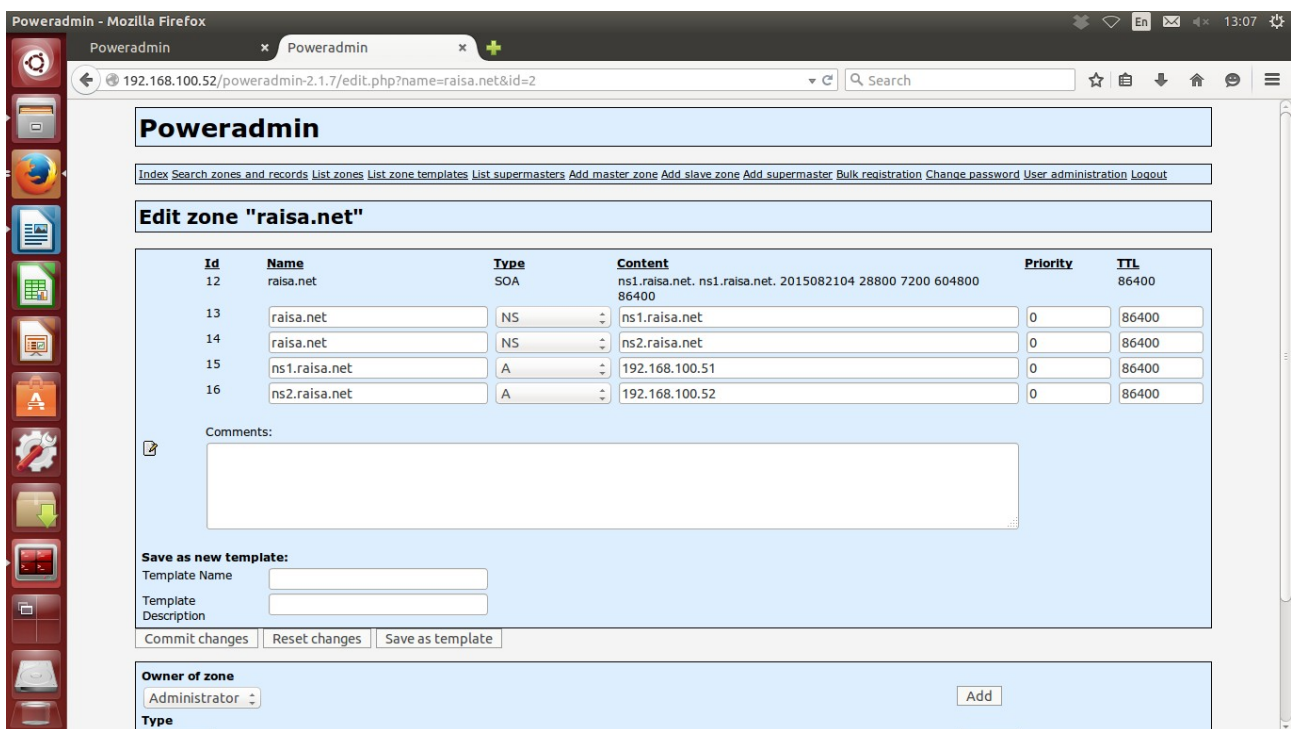
| Name                                                   | Type                                | Content              | Priority             | TTL                  |
|--------------------------------------------------------|-------------------------------------|----------------------|----------------------|----------------------|
| <input type="text" value=".100.168.192.in-addr.arpa"/> | IN <input type="text" value="PTR"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

**Owner of zone**  
Administrator

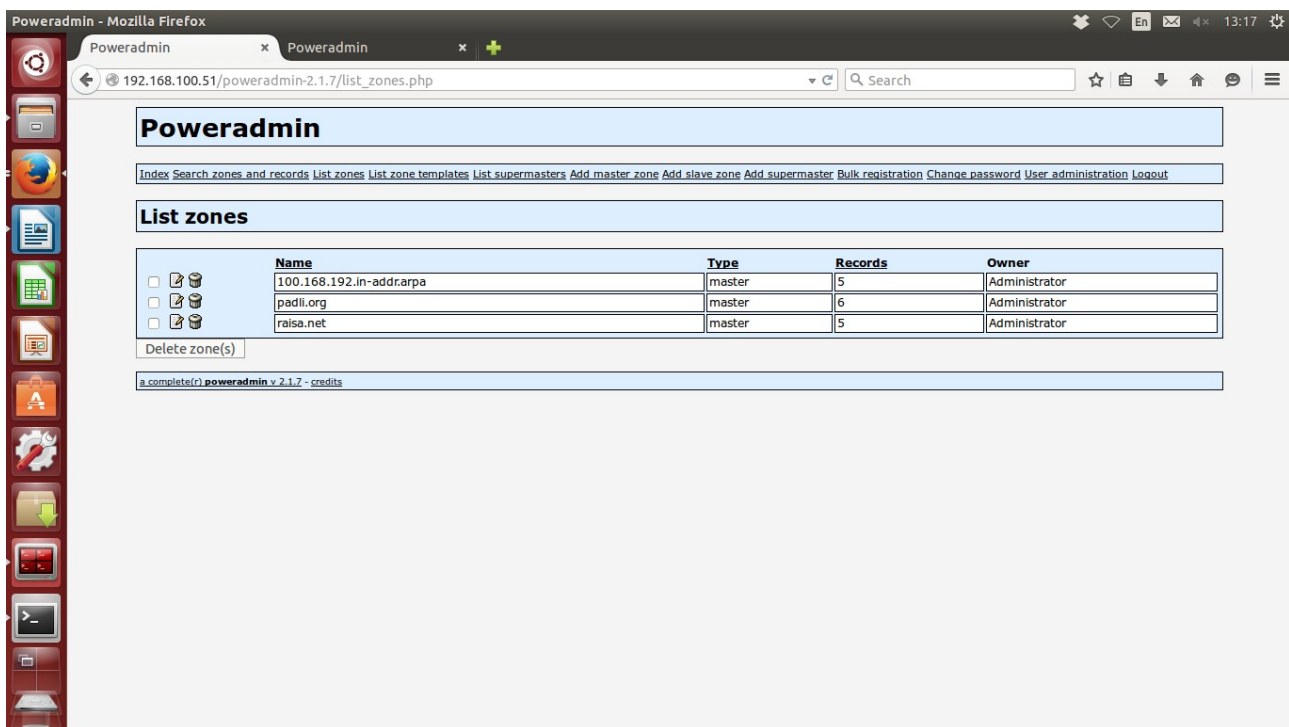
64. cek list zone pada slave, setup di master otomatis akan terecord ke slave (NS2).



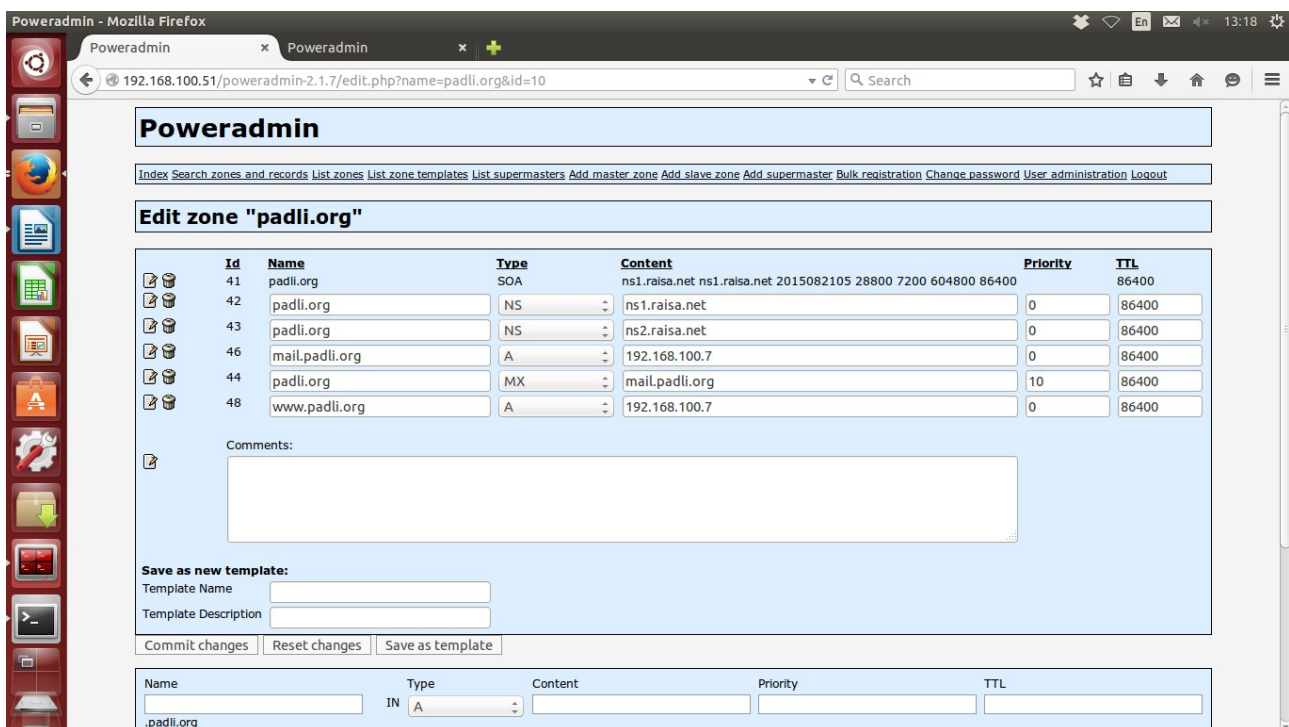
65. cek record pada slave, setup di master otomatis akan terecord ke slave (NS2).



66. tambahkan master zone padli.org (NS1).



67. tambahkan record pada master zone padli.org (NS1).



68. cek list master zone reverse (NS1).

Poweradmin - Mozilla Firefox

192.168.100.51/poweradmin-2.1.7/edit.php?name=100.168.192.in-addr.arpa&id=9

## Poweradmin

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### Edit zone "100.168.192.in-addr.arpa"

|  | <b>ID</b> | <b>Name</b>                 | <b>Type</b> | <b>Content</b>                                                 | <b>Priority</b> | <b>TTL</b> |
|--|-----------|-----------------------------|-------------|----------------------------------------------------------------|-----------------|------------|
|  | 34        | 100.168.192.in-addr.arpa    | SOA         | ns1.raisa.net ns1.raisa.net 2015082104 28800 7200 604800 86400 |                 | 86400      |
|  | 45        | 7.100.168.192.in-addr.arpa  | PTR         | mail.padli.org                                                 | 0               | 86400      |
|  | 47        | 7.100.168.192.in-addr.arpa  | PTR         | www.padli.org                                                  | 0               | 86400      |
|  | 37        | 51.100.168.192.in-addr.arpa | PTR         | ns1.raisa.net                                                  | 0               | 86400      |
|  | 39        | 52.100.168.192.in-addr.arpa | PTR         | ns2.raisa.net                                                  | 0               | 86400      |

Comments:

Save as new template:

Template Name:

Template Description:

| Name                      | Type   | Content | Priority | TTL |
|---------------------------|--------|---------|----------|-----|
| .100.168.192.in-addr.arpa | IN PTR |         |          |     |

69. tambahkan master zone host1.co.id & host2.co.id (NS1).

Poweradmin - Mozilla Firefox

192.168.100.51/poweradmin-2.1.7/list\_zones.php

## Poweradmin

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### List zones

|                          | <b>Name</b>              | <b>Type</b> | <b>Records</b> | <b>Owner</b>  |
|--------------------------|--------------------------|-------------|----------------|---------------|
| <input type="checkbox"/> | 100.168.192.in-addr.arpa | master      | 5              | Administrator |
| <input type="checkbox"/> | host1.co.id              | master      | 1              | Administrator |
| <input type="checkbox"/> | host2.co.id              | master      | 1              | Administrator |
| <input type="checkbox"/> | padli.org                | master      | 6              | Administrator |
| <input type="checkbox"/> | raisa.net                | master      | 5              | Administrator |

Delete zone(s)

a complete(r) poweradmin v 2.1.2 - credits

70. pada master zone host1.co.id tambahkan record seperti ini (NS1).

Poweradmin - Mozilla Firefox

Poweradmin x Poweradmin

192.168.100.51/poweradmin-2.1.7/edit.php?id=11

## Poweradmin

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### Edit zone "host1.co.id"

|  | <b>Id</b> | <b>Name</b>     | <b>Type</b> | <b>Content</b>                                                 | <b>Priority</b> | <b>TTL</b> |
|--|-----------|-----------------|-------------|----------------------------------------------------------------|-----------------|------------|
|  | 49        | host1.co.id     | SOA         | ns1.raisa.net ns1.raisa.net 2015082103 28800 7200 604800 86400 |                 | 86400      |
|  | 51        | host1.co.id     | NS          | ns1.raisa.net                                                  | 0               | 86400      |
|  | 52        | host1.co.id     | NS          | ns2.raisa.net                                                  | 0               | 86400      |
|  | 54        | www.host1.co.id | A           | 192.168.100.20                                                 | 0               | 86400      |

Comments:

Save as new template:

Template Name

Template Description

| Name         | Type | Content | Priority | TTL |
|--------------|------|---------|----------|-----|
| IN           | A    |         |          |     |
| .host1.co.id |      |         |          |     |

☐ Add also reverse record

71. pada master zone host2.co.id tambahkan record seperti ini (NS1).

Poweradmin - Mozilla Firefox

Poweradmin x Poweradmin

192.168.100.51/poweradmin-2.1.7/edit.php?id=12

## Poweradmin

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### Edit zone "host2.co.id"

|  | <b>Id</b> | <b>Name</b>     | <b>Type</b> | <b>Content</b>                                                 | <b>Priority</b> | <b>TTL</b> |
|--|-----------|-----------------|-------------|----------------------------------------------------------------|-----------------|------------|
|  | 50        | host2.co.id     | SOA         | ns1.raisa.net ns1.raisa.net 2015082103 28800 7200 604800 86400 |                 | 86400      |
|  | 55        | host2.co.id     | NS          | ns1.raisa.net                                                  | 0               | 86400      |
|  | 56        | host2.co.id     | NS          | ns2.raisa.net                                                  | 0               | 86400      |
|  | 58        | www.host2.co.id | A           | 192.168.100.20                                                 | 0               | 86400      |

Comments:

Save as new template:

Template Name

Template Description

| Name         | Type | Content | Priority | TTL |
|--------------|------|---------|----------|-----|
| IN           | A    |         |          |     |
| .host2.co.id |      |         |          |     |

☐ Add also reverse record

72. cek list master zone reverse hasilnya seperti ini (NS1).

Poweradmin - Mozilla Firefox

Poweradmin

192.168.100.51/poweradmin-2.1.7/edit.php?name=100.168.192.in-addr.arpa&id=9

## Poweradmin

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### Edit zone "100.168.192.in-addr.arpa"

|  | <b>Id</b> | <b>Name</b>                 | <b>Type</b> | <b>Content</b>                                                 | <b>Priority</b> | <b>TTL</b> |
|--|-----------|-----------------------------|-------------|----------------------------------------------------------------|-----------------|------------|
|  | 34        | 100.168.192.in-addr.arpa    | SOA         | ns1.raisa.net ns1.raisa.net 2015082106 28800 7200 604800 86400 |                 | 86400      |
|  | 45        | 7.100.168.192.in-addr.arpa  | PTR         | mail.padli.org                                                 | 0               | 86400      |
|  | 47        | 7.100.168.192.in-addr.arpa  | PTR         | www.padli.org                                                  | 0               | 86400      |
|  | 57        | 20.100.168.192.in-addr.arpa | PTR         | www.host2.co.id                                                | 0               | 86400      |
|  | 53        | 20.100.168.192.in-addr.arpa | PTR         | www.host1.co.id                                                | 0               | 86400      |
|  | 37        | 51.100.168.192.in-addr.arpa | PTR         | ns1.raisa.net                                                  | 0               | 86400      |
|  | 39        | 52.100.168.192.in-addr.arpa | PTR         | ns2.raisa.net                                                  | 0               | 86400      |

Comments:

Save as new template:

Template Name:

Template Description:

[Commit changes](#) [Reset changes](#) [Save as template](#)

| Name | Type   | Content | Priority | TTL |
|------|--------|---------|----------|-----|
|      | IN PTR |         |          |     |

73. cek slave ns2.raisa.net otomatis setup pada master akan terecord di slave (NS2).

Poweradmin - Mozilla Firefox

Poweradmin

192.168.100.52/poweradmin-2.1.7/list\_zones.php

## Poweradmin

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### List zones

|                          | <b>Name</b> | <b>Type</b> | <b>Records</b> | <b>Owner</b> |
|--------------------------|-------------|-------------|----------------|--------------|
| <input type="checkbox"/> | host1.co.id | slave       | 4              |              |
| <input type="checkbox"/> | host2.co.id | slave       | 4              |              |
| <input type="checkbox"/> | padli.org   | slave       | 6              |              |
| <input type="checkbox"/> | raisa.net   | slave       | 5              |              |

[Delete zone\(s\)](#)

a complete(r) poweradmin v 2.1.7 - credits

## 74. tes ns1,ns2,host (pastikan ip dan nameserver benar).

```
padli@cavs: ~
padli@ns1:~ 81x20
padli@ns1:~$ more /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.100.51
nameserver 192.168.100.52
padli@ns1:~$ ifconfig eth0
eth0      Link encap:Ethernet  HWaddr a6:53:64:60:dc:06
          inet addr:192.168.100.51  Bcast:192.168.100.255  Mask:255.255.255.0
          inet6 addr: fe80::a453:64ff:fe60:dc06/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1349 errors:0 dropped:0 overruns:0 frame:0
          TX packets:900 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:192426 (192.4 KB)  TX bytes:336730 (336.7 KB)

padli@ns1:~$

padli@ns2:~ 81x20
padli@ns2:~$ more /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.100.51
nameserver 192.168.100.52
padli@ns2:~$ ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 1a:d7:c0:c6:12:63
          inet addr:192.168.100.52  Bcast:192.168.100.255  Mask:255.255.255.0
          inet6 addr: fe80::1807:c0ff:fe6:1263/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1432 errors:0 dropped:0 overruns:0 frame:0
          TX packets:851 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:204913 (204.9 KB)  TX bytes:294412 (294.4 KB)

padli@ns2:~$

padli@raisa:~ 80x20
padli@raisa:~$ sudo nano /etc/resolv.conf
[sudo] password for padli:
padli@raisa:~$ more /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.100.51
nameserver 192.168.100.52
padli@raisa:~$ ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 5e:60:78:f1:98:7d
          inet addr:192.168.100.20  Bcast:192.168.100.255  Mask:255.255.255.0
          inet6 addr: fe80::5c60:78ff:fe1:987d/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:2658 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1700 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:222407 (222.4 KB)  TX bytes:184473 (184.4 KB)

padli@raisa:~$

padli@cavs:~ 80x20
padli@cavs:~$ more /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
# DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
nameserver 192.168.100.51
nameserver 192.168.100.52
padli@cavs:~$ ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 14:da:e9:ad:9f:bc
          inet addr:192.168.100.7  Bcast:192.168.100.255  Mask:255.255.255.0
          inet6 addr: fe80::16da:e9ff:fead:9fbc/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:78651 errors:0 dropped:0 overruns:0 frame:0
          TX packets:94356 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:82194958 (82.1 MB)  TX bytes:32489094 (32.4 MB)

padli@cavs:~$
```

## 75. tes nslookup.

```
padli@ns1:~ 81x20
padli@ns1:~$ nslookup www.host1.co.id
Server:      192.168.100.51
Address:     192.168.100.51#53

Name: www.host1.co.id
Address: 192.168.100.20

padli@ns1:~$ nslookup www.host2.co.id
Server:      192.168.100.51
Address:     192.168.100.51#53

Name: www.host2.co.id
Address: 192.168.100.20

padli@ns1:~$

padli@ns2:~ 81x20
padli@ns2:~$ nslookup www.padli.org
Server:      192.168.100.51
Address:     192.168.100.51#53

Name: www.padli.org
Address: 192.168.100.7

padli@ns2:~$ nslookup mail.padli.org
Server:      192.168.100.51
Address:     192.168.100.51#53

Name: mail.padli.org
Address: 192.168.100.7

padli@ns2:~$

padli@raisa:~ 80x20
padli@raisa:~$ nslookup ns1.raisa.net
Server:      192.168.100.51
Address:     192.168.100.51#53

51.100.168.192.in-addr.arpa  name = ns1.raisa.net.

padli@raisa:~$ nslookup 192.168.100.7
Server:      192.168.100.51
Address:     192.168.100.51#53

7.100.168.192.in-addr.arpa  name = www.padli.org.
7.100.168.192.in-addr.arpa  name = mail.padli.org.

padli@raisa:~$ nslookup 192.168.100.20
Server:      192.168.100.51
Address:     192.168.100.51#53

20.100.168.192.in-addr.arpa  name = www.host1.co.id.
20.100.168.192.in-addr.arpa  name = www.host2.co.id.

padli@raisa:~$

padli@cavs:~ 80x20
padli@cavs:~$ nslookup ns2.raisa.net
Server:      192.168.100.51
Address:     192.168.100.51#53

Name: ns2.raisa.net
Address: 192.168.100.52

padli@cavs:~$ nslookup 192.168.100.52
Server:      192.168.100.51
Address:     192.168.100.51#53

52.100.168.192.in-addr.arpa  name = ns2.raisa.net.

padli@cavs:~$
```

## 76. tes dig.

```
padli@raisa: ~
padli@ns1:~$ dig www.host1.co.id
<<>> DiG 9.9.5-3ubuntu0.4-Ubuntu <<>> www.host1.co.id
;; global options: +cmd
;; Got answer:
;;->HEADER<- opcode: QUERY, status: NOERROR, id: 58239
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 2800
;; QUESTION SECTION:
;; www.host1.co.id.                IN      A
;; ANSWER SECTION:
www.host1.co.id.  86400   IN      A      192.168.100.20
;; Query time: 4 msec
;; SERVER: 192.168.100.51#53(192.168.100.51)
;; WHEN: Fri Aug 21 13:30:08 WIB 2015
;; MSG SIZE rcvd: 60

padli@ns2:~$ dig mail.padli.org
<<>> DiG 9.9.5-3ubuntu0.4-Ubuntu <<>> mail.padli.org
;; global options: +cmd
;; Got answer:
;;->HEADER<- opcode: QUERY, status: NOERROR, id: 866
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 2800
;; QUESTION SECTION:
;; mail.padli.org.                 IN      A
;; ANSWER SECTION:
mail.padli.org.  86400   IN      A      192.168.100.7
;; Query time: 1 msec
;; SERVER: 192.168.100.51#53(192.168.100.51)
;; WHEN: Fri Aug 21 13:30:30 WIB 2015
;; MSG SIZE rcvd: 59

padli@raisa:~$ dig ns1.raisa.net
<<>> DiG 9.9.5-3ubuntu0.4-Ubuntu <<>> ns1.raisa.net
;; global options: +cmd
;; Got answer:
;;->HEADER<- opcode: QUERY, status: NOERROR, id: 61196
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 2800
;; QUESTION SECTION:
;; ns1.raisa.net.                  IN      A
;; ANSWER SECTION:
ns1.raisa.net.  86400   IN      A      192.168.100.51
;; Query time: 4 msec
;; SERVER: 192.168.100.51#53(192.168.100.51)
;; WHEN: Fri Aug 21 13:32:09 WIB 2015
;; MSG SIZE rcvd: 58

padli@cavs:~$ dig facebook.com
<<>> DiG 9.9.5-3-Ubuntu <<>> facebook.com
;; global options: +cmd
;; Got answer:
;;->HEADER<- opcode: QUERY, status: NOERROR, id: 25131
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 4
;; QUESTION SECTION:
;; facebook.com.                   IN      A
;; ANSWER SECTION:
facebook.com.  1970    IN      A      173.252.74.22
;; AUTHORITY SECTION:
facebook.com.  172764 IN      NS      a.ns.facebook.com.
facebook.com.  172764 IN      NS      b.ns.facebook.com.
;; ADDITIONAL SECTION:
a.ns.facebook.com. 3564   IN      AAAA    2a03:2880:ffff:c:face:b00c:0:35
```

## 77. tes ping (hasil ping ke unila.ac.id di forwad ke ns 8.8.8.8).

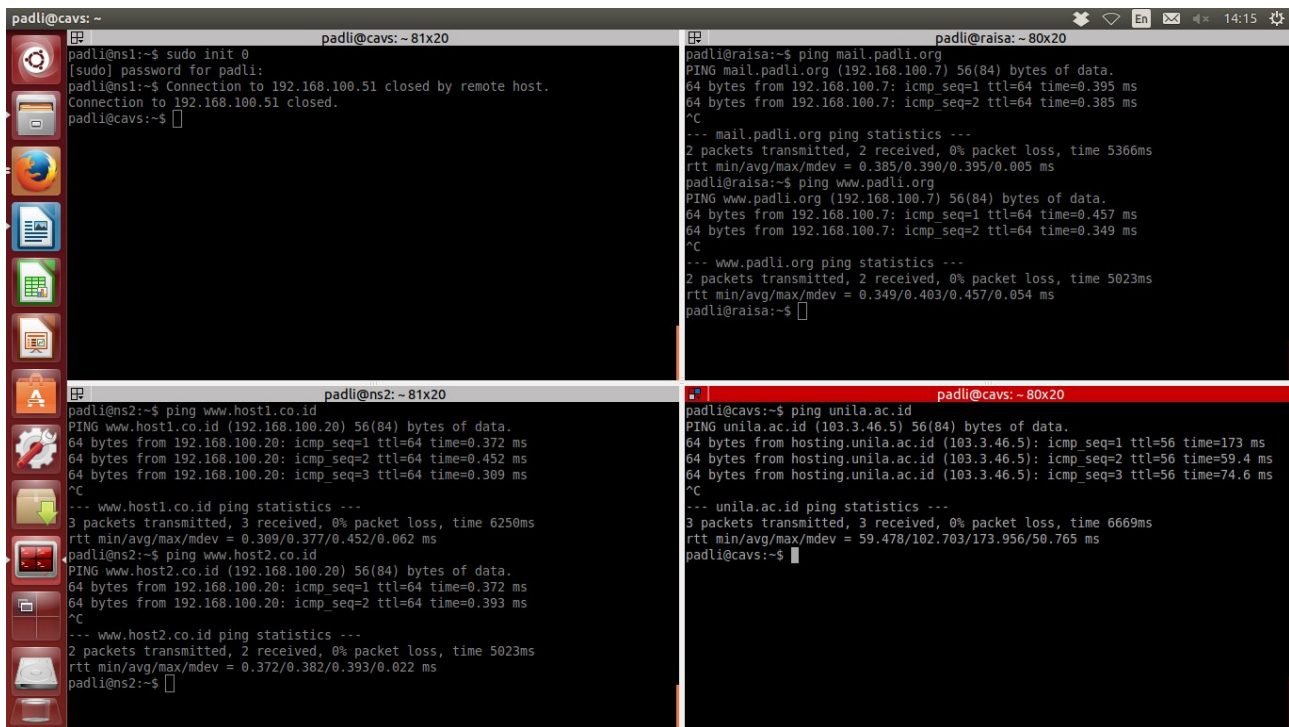
```
padli@cavs: ~
padli@ns1:~$ ping www.host1.co.id
PING www.host1.co.id (192.168.100.20) 56(84) bytes of data:
64 bytes from www.host2.co.id (192.168.100.20): icmp_seq=1 ttl=64 time=0.241 ms
64 bytes from www.host2.co.id (192.168.100.20): icmp_seq=2 ttl=64 time=0.309 ms
^C
--- www.host1.co.id ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1000ms
rtt min/avg/max/mdev = 0.241/0.275/0.309/0.034 ms
padli@ns1:~$ ping www.host2.co.id
PING www.host2.co.id (192.168.100.20) 56(84) bytes of data:
64 bytes from www.host2.co.id (192.168.100.20): icmp_seq=1 ttl=64 time=0.236 ms
64 bytes from www.host2.co.id (192.168.100.20): icmp_seq=2 ttl=64 time=0.282 ms
^C
--- www.host2.co.id ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.236/0.259/0.282/0.023 ms
padli@ns1:~$

padli@ns2:~$ ping www.padli.org
PING www.padli.org (192.168.100.7) 56(84) bytes of data:
64 bytes from www.padli.org (192.168.100.7): icmp_seq=1 ttl=64 time=0.392 ms
64 bytes from www.padli.org (192.168.100.7): icmp_seq=2 ttl=64 time=0.492 ms
^C
--- www.padli.org ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.392/0.442/0.492/0.050 ms
padli@ns2:~$ ping mail.padli.org
PING mail.padli.org (192.168.100.7) 56(84) bytes of data:
64 bytes from www.padli.org (192.168.100.7): icmp_seq=1 ttl=64 time=0.383 ms
64 bytes from www.padli.org (192.168.100.7): icmp_seq=2 ttl=64 time=0.478 ms
^C
--- mail.padli.org ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1000ms
rtt min/avg/max/mdev = 0.383/0.430/0.478/0.051 ms
padli@ns2:~$

padli@raisa:~$ ping ns1.raisa.net
PING ns1.raisa.net (192.168.100.51) 56(84) bytes of data:
64 bytes from ns1.raisa.net (192.168.100.51): icmp_seq=1 ttl=64 time=0.248 ms
64 bytes from ns1.raisa.net (192.168.100.51): icmp_seq=2 ttl=64 time=0.311 ms
^C
--- ns1.raisa.net ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.248/0.279/0.311/0.035 ms
padli@raisa:~$ ping ns2.raisa.net
PING ns2.raisa.net (192.168.100.52) 56(84) bytes of data:
64 bytes from ns2.raisa.net (192.168.100.52): icmp_seq=1 ttl=64 time=0.519 ms
64 bytes from ns2.raisa.net (192.168.100.52): icmp_seq=2 ttl=64 time=0.287 ms
^C
--- ns2.raisa.net ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.287/0.403/0.519/0.116 ms
padli@raisa:~$

padli@cavs:~$ ping unila.ac.id
PING unila.ac.id (103.3.46.5) 56(84) bytes of data:
64 bytes from hosting.unila.ac.id (103.3.46.5): icmp_seq=1 ttl=56 time=300 ms
64 bytes from hosting.unila.ac.id (103.3.46.5): icmp_seq=2 ttl=56 time=59.4 ms
^C
--- unila.ac.id ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 59.487/179.789/300.091/120.302 ms
padli@cavs:~$ ping teknokrat.ac.id
PING teknokrat.ac.id (110.97.147.155) 56(84) bytes of data:
64 bytes from 155.subnet110-97-147.static.astinet.telkom.net.id (110.97.147.155)
: icmp_seq=1 ttl=59 time=67.1 ms
64 bytes from 155.subnet110-97-147.static.astinet.telkom.net.id (110.97.147.155)
: icmp_seq=2 ttl=59 time=26.5 ms
^C
--- teknokrat.ac.id ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1000ms
rtt min/avg/max/mdev = 26.541/46.851/67.162/20.311 ms
padli@cavs:~$
```

78. hasil tes slave ns2 ok, setelah mesin ns1 master off, tes ping tetap berjalan normal.



The screenshot displays four terminal windows from a desktop environment. The top-left window, titled 'padli@cavs: ~', shows the execution of 'sudo init 0' and a message indicating a connection to 192.168.100.51 was closed by the remote host. The top-right window, 'padli@raisa: ~80x20', shows ping tests to 'mail.padli.org' and 'www.padli.org', both with 0% packet loss. The bottom-left window, 'padli@ns2: ~81x20', shows ping tests to 'www.host1.co.id' and 'www.host2.co.id', also with 0% packet loss. The bottom-right window, 'padli@cavs: ~80x20', shows ping tests to 'unila.ac.id' and its hosting IP, with 0% packet loss. The desktop background is dark, and the left sidebar contains various application icons.

```
padli@cavs: ~
padli@ns1:~$ sudo init 0
[sudo] password for padli:
padli@ns1:~$ Connection to 192.168.100.51 closed by remote host.
Connection to 192.168.100.51 closed.
padli@cavs:~$

padli@raisa:~$ ping mail.padli.org
PING mail.padli.org (192.168.100.7) 56(84) bytes of data.
64 bytes from 192.168.100.7: icmp_seq=1 ttl=64 time=0.395 ms
64 bytes from 192.168.100.7: icmp_seq=2 ttl=64 time=0.385 ms
^C
--- mail.padli.org ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 5366ms
rtt min/avg/max/mdev = 0.385/0.390/0.395/0.005 ms
padli@raisa:~$ ping www.padli.org
PING www.padli.org (192.168.100.7) 56(84) bytes of data.
64 bytes from 192.168.100.7: icmp_seq=1 ttl=64 time=0.457 ms
64 bytes from 192.168.100.7: icmp_seq=2 ttl=64 time=0.349 ms
^C
--- www.padli.org ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 5023ms
rtt min/avg/max/mdev = 0.349/0.403/0.457/0.054 ms
padli@raisa:~$

padli@ns2:~81x20
padli@ns2:~$ ping www.host1.co.id
PING www.host1.co.id (192.168.100.20) 56(84) bytes of data.
64 bytes from 192.168.100.20: icmp_seq=1 ttl=64 time=0.372 ms
64 bytes from 192.168.100.20: icmp_seq=2 ttl=64 time=0.452 ms
64 bytes from 192.168.100.20: icmp_seq=3 ttl=64 time=0.309 ms
^C
--- www.host1.co.id ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 6250ms
rtt min/avg/max/mdev = 0.309/0.377/0.452/0.062 ms
padli@ns2:~$ ping www.host2.co.id
PING www.host2.co.id (192.168.100.20) 56(84) bytes of data.
64 bytes from 192.168.100.20: icmp_seq=1 ttl=64 time=0.372 ms
64 bytes from 192.168.100.20: icmp_seq=2 ttl=64 time=0.393 ms
^C
--- www.host2.co.id ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 5023ms
rtt min/avg/max/mdev = 0.372/0.382/0.393/0.022 ms
padli@ns2:~$

padli@cavs:~80x20
padli@cavs:~$ ping unila.ac.id
PING unila.ac.id (103.3.46.5) 56(84) bytes of data.
64 bytes from hosting.unila.ac.id (103.3.46.5): icmp_seq=1 ttl=56 time=173 ms
64 bytes from hosting.unila.ac.id (103.3.46.5): icmp_seq=2 ttl=56 time=59.4 ms
64 bytes from hosting.unila.ac.id (103.3.46.5): icmp_seq=3 ttl=56 time=74.6 ms
^C
--- unila.ac.id ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 6669ms
rtt min/avg/max/mdev = 59.478/102.703/173.956/50.765 ms
padli@cavs:~$
```

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