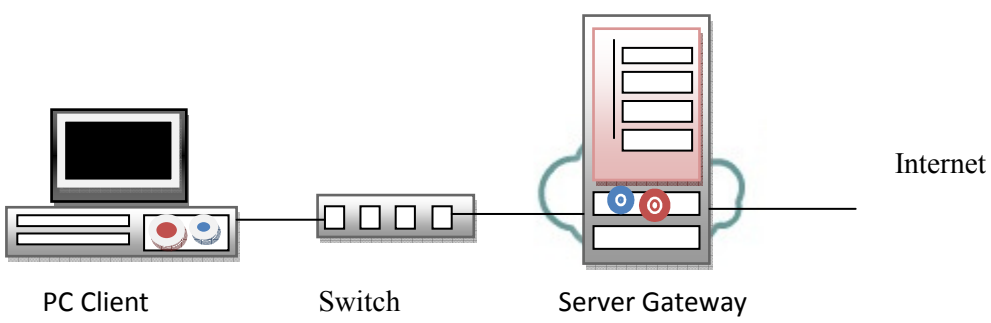
MODUL PRAKTEK DEBIAN SERVER

Dibuat oleh : Yudi Firman Santosa, S.T.
Dipersiapkan untuk Latihan Siswa Praktek Ujian Nasional 2012



Perencanaan Debian Server untuk Gateway (Router), DNS Server, Web Server dan Proxy Server.

Ketentuan :

Konfigurasi Server

1. IP Internet = Sesuai dengan Network yang diberikan ISP (Dalam Contoh ini IP yang diberikan untuk Debian Server 172.16.1.2/30 dan IP Server ISP adalah 172.16.1.1/30)
2. IP LAN = 192.168.50.1/24
3. Gateway = Sesuai Dengan IP yang diberikan oleh ISP (Dalam contoh ini ditentukan IP Server ISP adalah 172.16.1.1/30)

Konfigurasi Client

1. IP LAN = 192.168.50.xxx/24
2. Gateway = 192.168.50.1

Keterangan : xxx merupakan address antara 2 sampai 254

Konfigurasi Proxy Server

1. Sistem Operasi = OS (Linux)
2. Port proxy = *3128*
3. Cache Manager = *nama_peserta*@sekolah.sch.id
   (Dalam Latihan ini adalah admin@sekolah.sch.id)
4. Visible host = *www.sekolah*.sch.id
5. Transparant proxy
6. Blocking Site = www.youtube.com , www.facebook.com

Konfigurasi Router

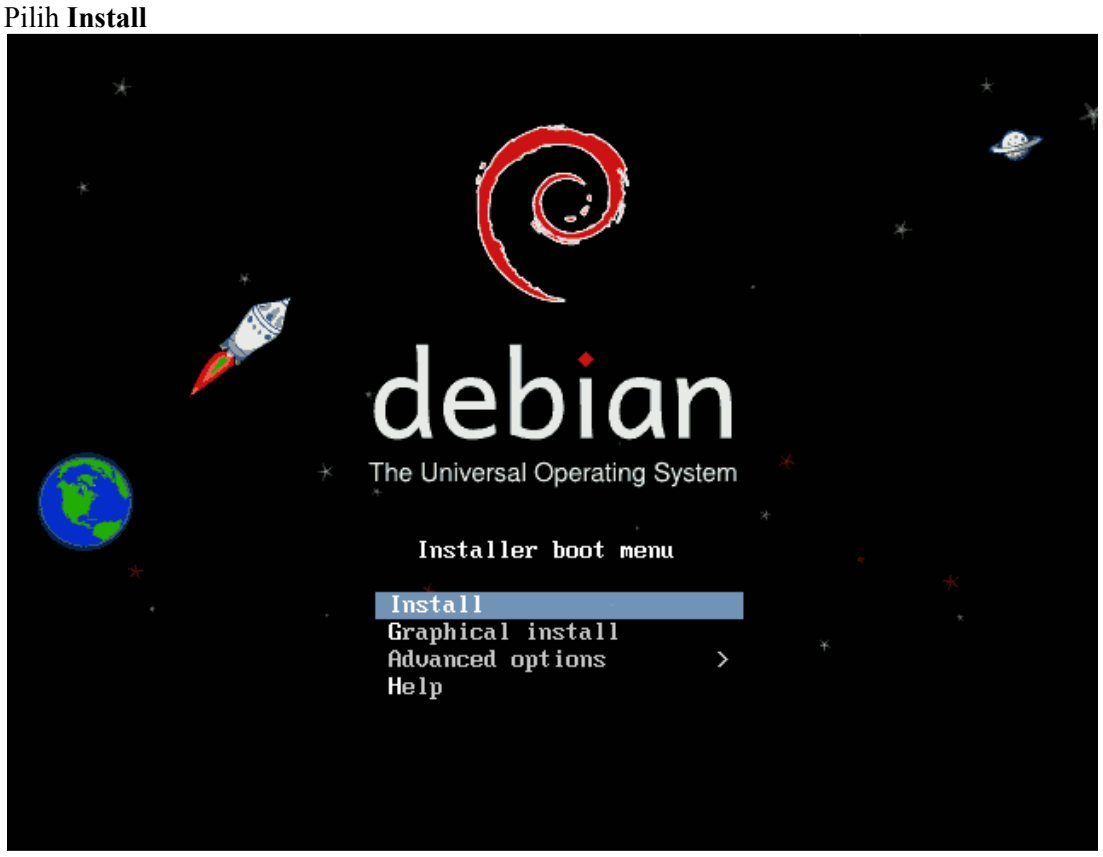
1. NAT = yes

Tambahan Ketentuan :

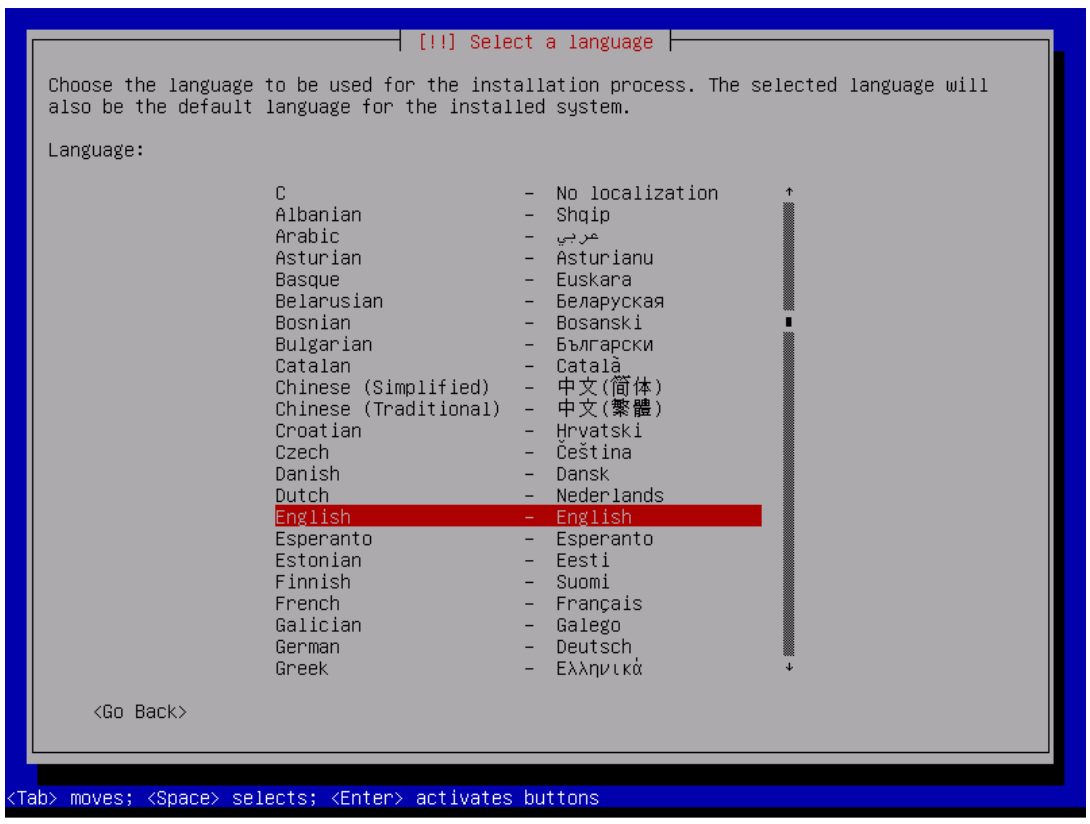
Hostname = tkjserver01
Domain = sekolah.sch.id
Sub Domain = 1. sub.sekolah.sch.id
2. mail.sekolah.sch.id
3. www.sekolah.sch.id
User = siswa
Root Password = {Menyesuaikan}
User Password = {Menyesuaikan}

A. MEMULAI INSTALASI STANDARD

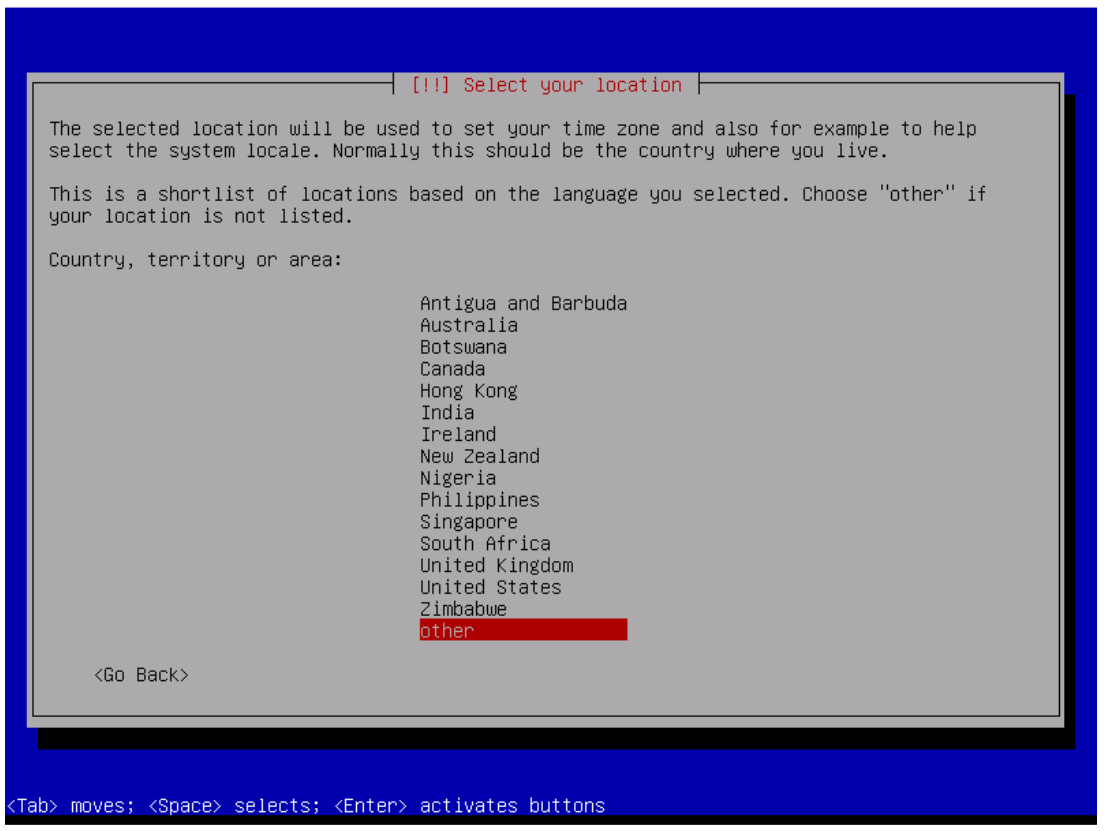
1. Siapkan DVD Debian, hidupkan CPU. Masuk ke BIOS, Atur BIOS agar Boot Order diarahkan pertama ke DVD-ROM. Masukan DVD Debian 6.0.2.1. Simpan Konfigurasi BIOS. Restart CPU.
   Maka Tampilan awal akan sebagai berikut
   Pilih **Install**



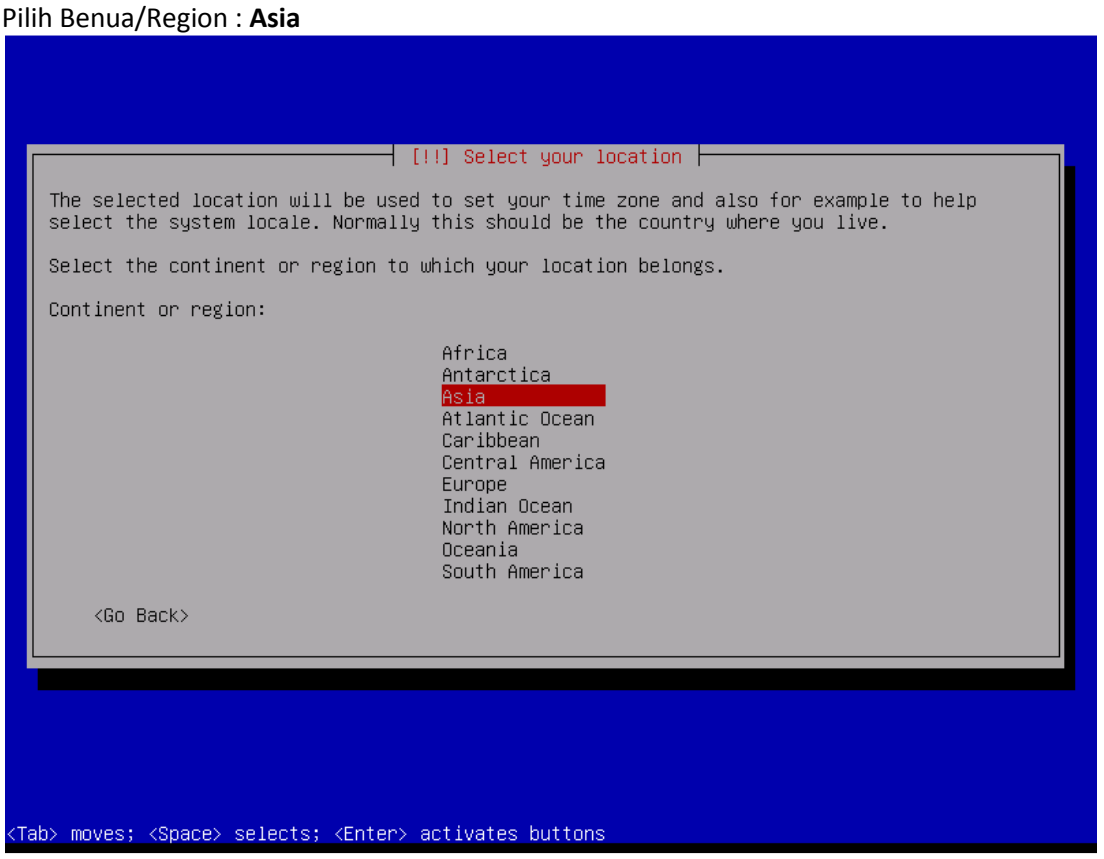
2. Pilih bahasa **English**



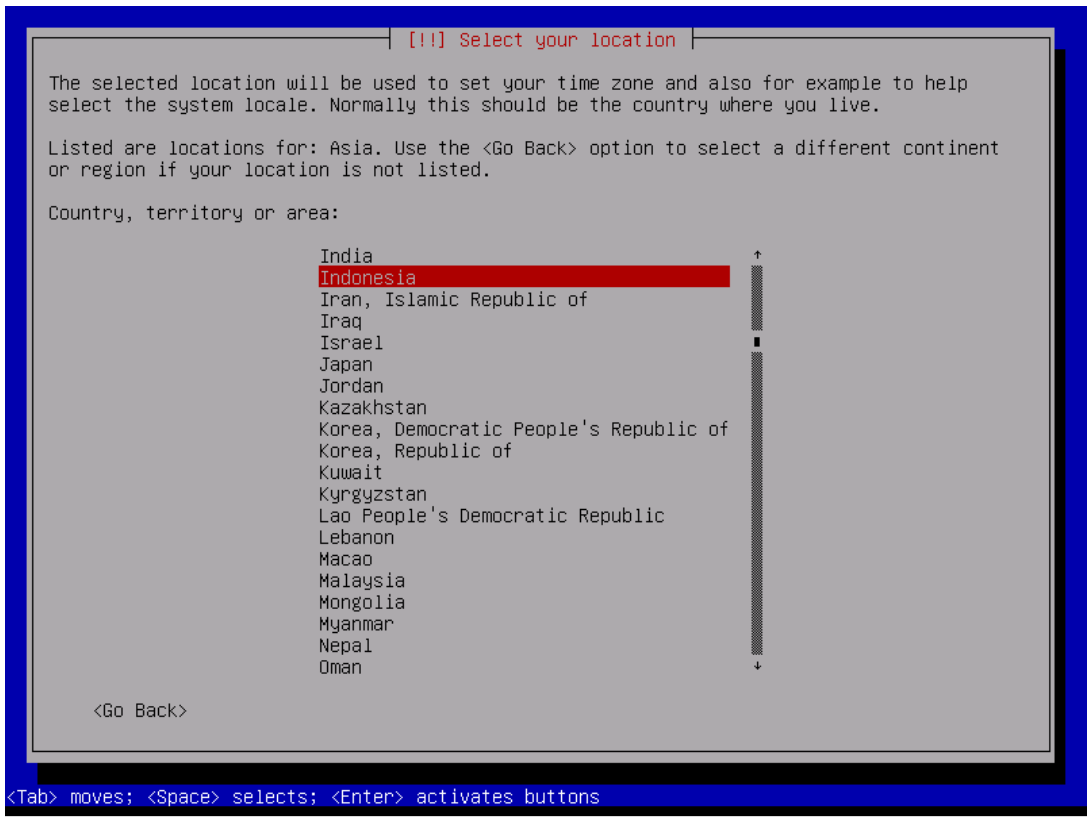
3. Pilih **Other**



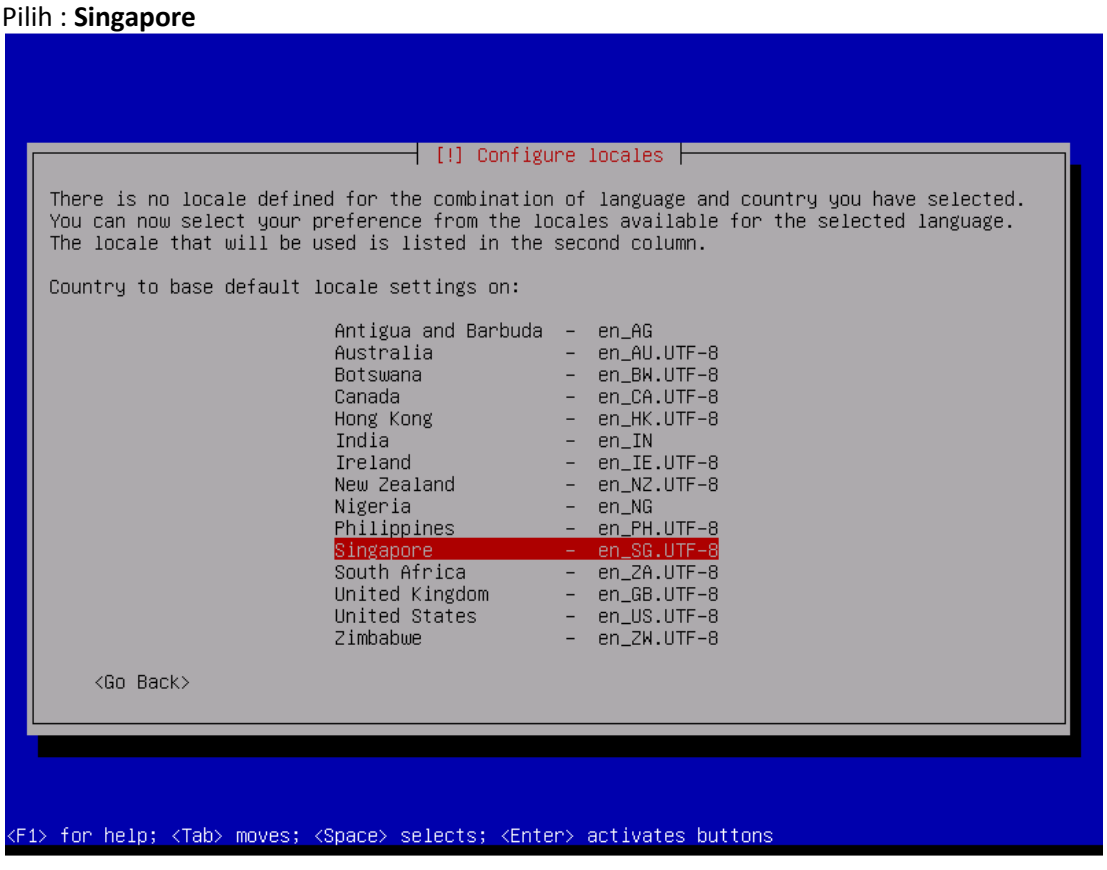
4. Pilih Benua/Region : **Asia**



5. Pilih Negara : **Indonesia**

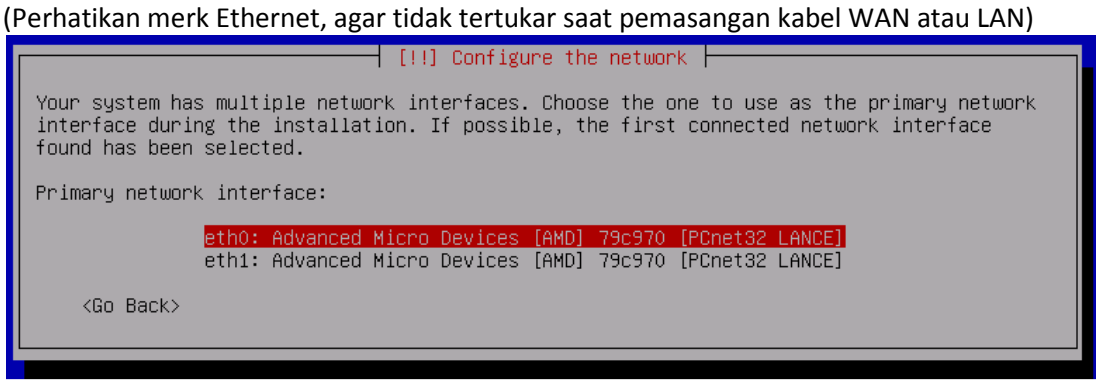


6. Pilih : **Singapore**



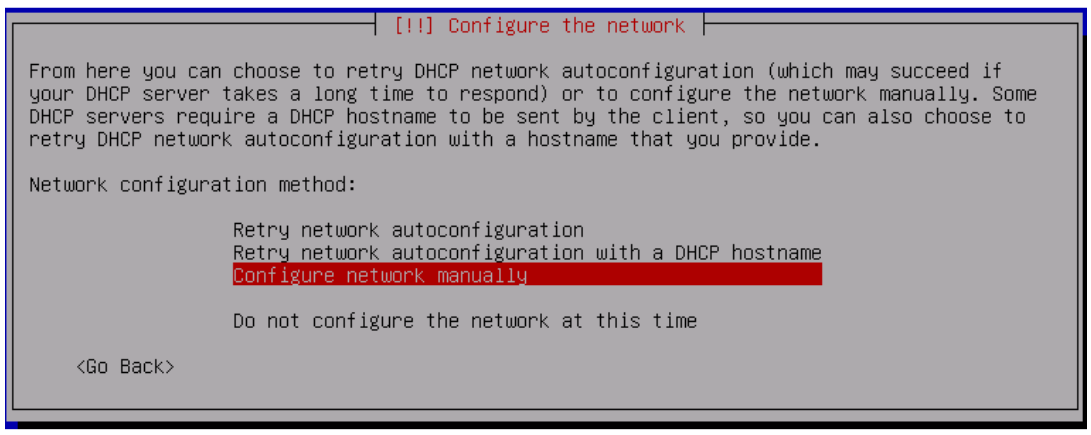
7. Pilih Keyboard Layout : **American English**

8. Pilih Eth0 sebagai Ethernet yang akan dihubungkan langsung ke WAN / Internet. (Perhatikan merk Ethernet, agar tidak tertukar saat pemasangan kabel WAN atau LAN)

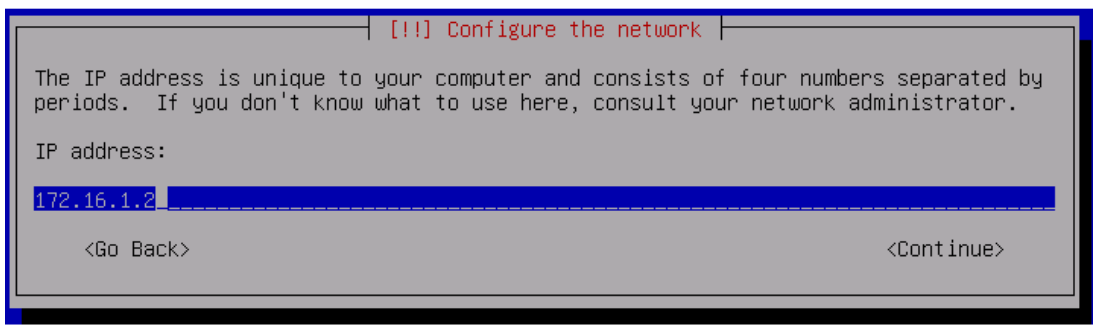


9. Segera batalkan untuk mendapatkan ***automatic ip*** dari DHCP Server. Apabila sudah terlanjur kembali ke menu sebelumnya.

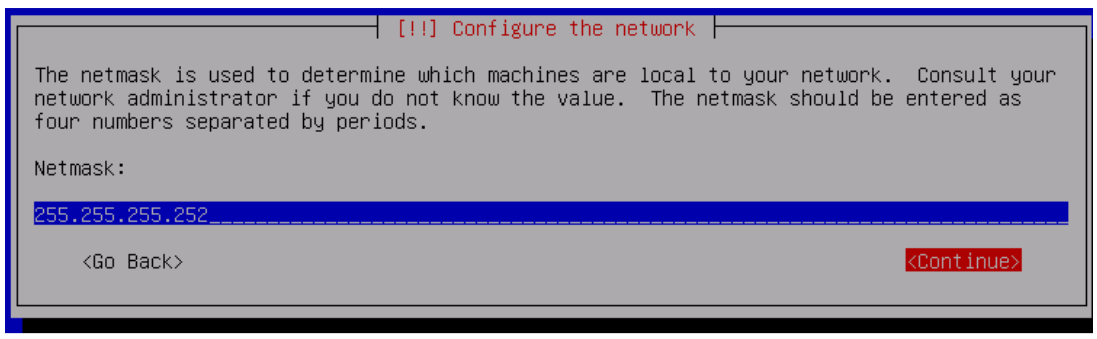
10. Saat ini kita akan mengkonfigurasi IP WAN/Internet terlebih dahulu, Pilih Configure Network Manually



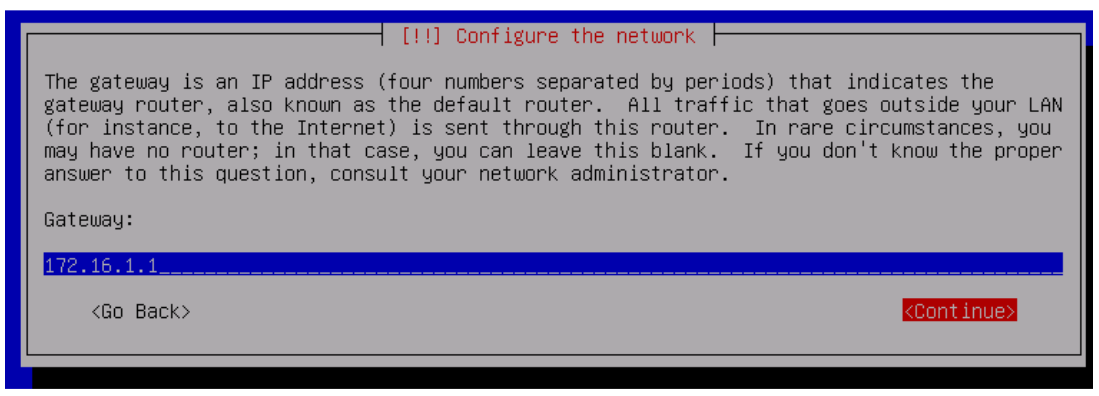
11. Isikan IP WAN yang telah ditentukan oleh ISP dengan : **172.16.1.2**



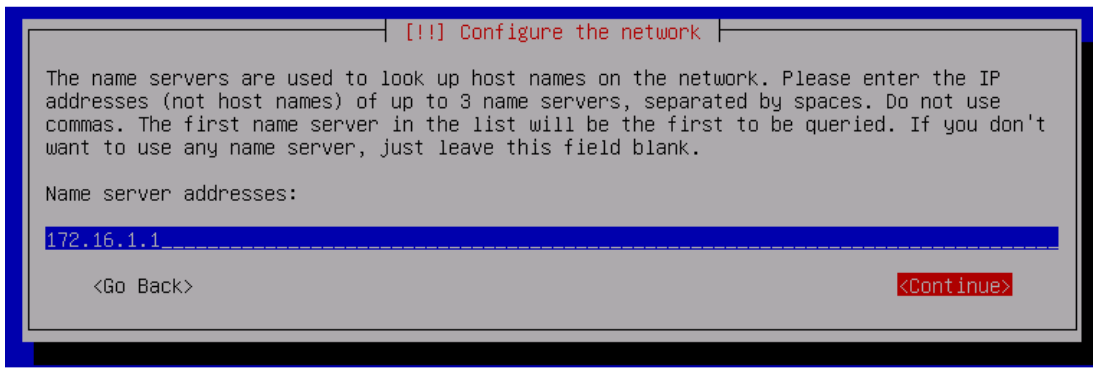
12. Isikan Netmask yang telah ditentukan : **255.255.255.252**



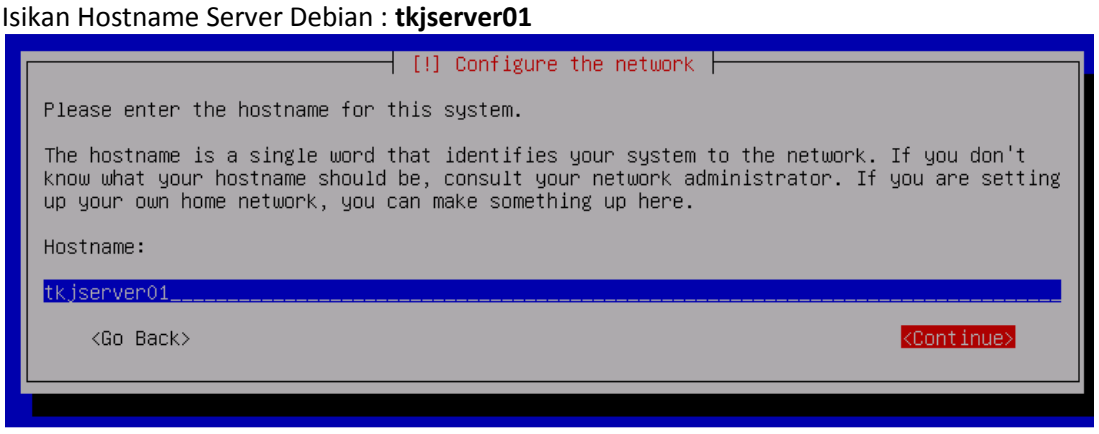
13. Isikan IP Gateway Server Debian, yaitu IP Server ISP : **172.16.1.1**



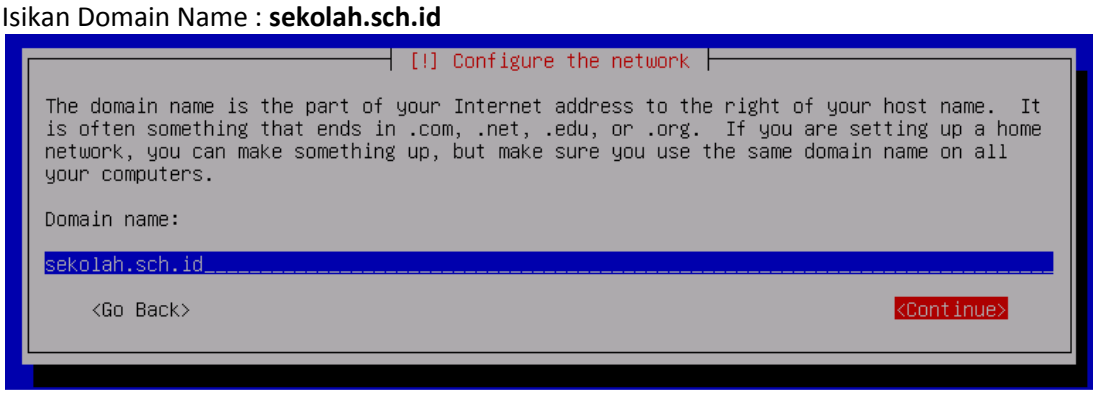
14. Isikan Name Server Addresses dengan IP Server ISP : **172.16.1.1**



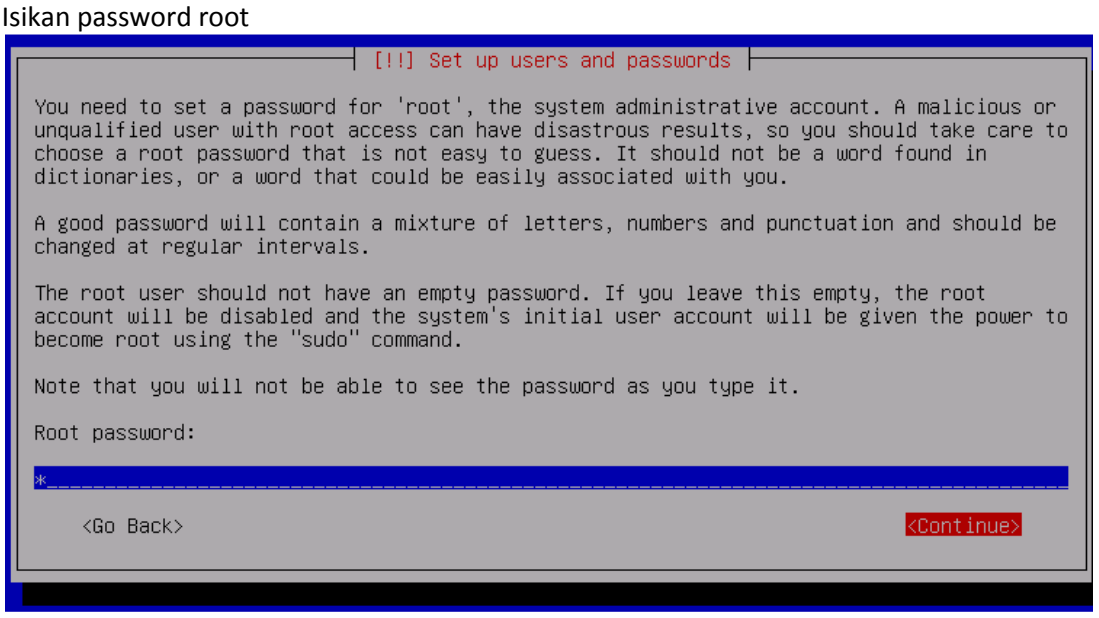
15. Isikan Hostname Server Debian : **tkjserver01**



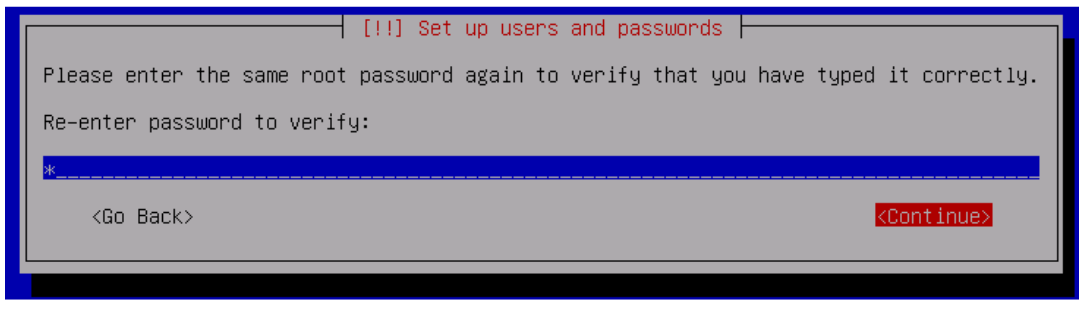
16. Isikan Domain Name : **sekolah.sch.id**



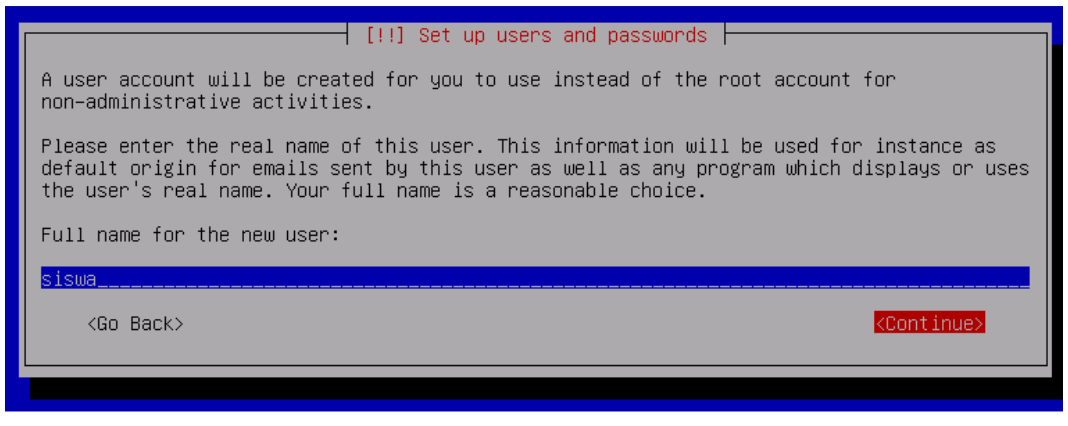
17. Isikan password root



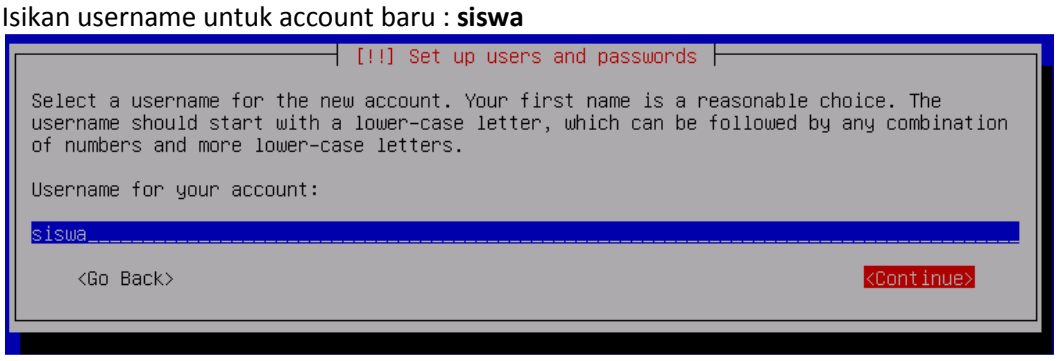
18. Masukan sekali lagi password root untuk verifikasi.



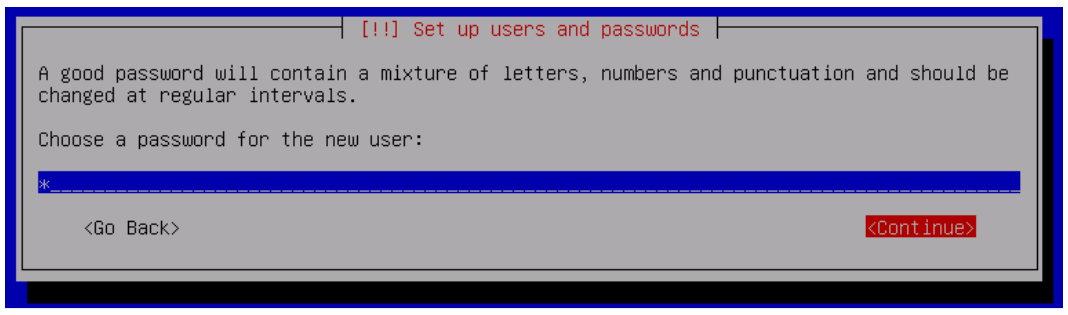
19. Isikan nama user baru : **siswa**



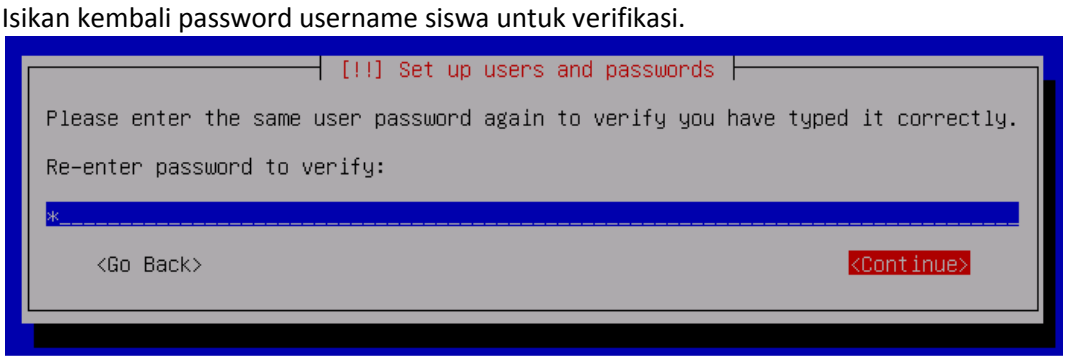
20. Isikan username untuk account baru : **siswa**



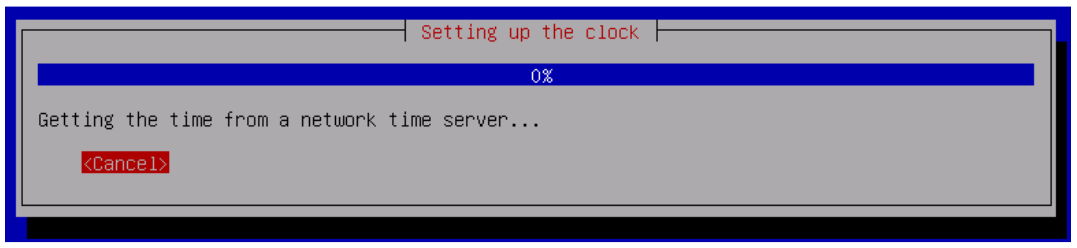
21. Isikan password untuk username siswa



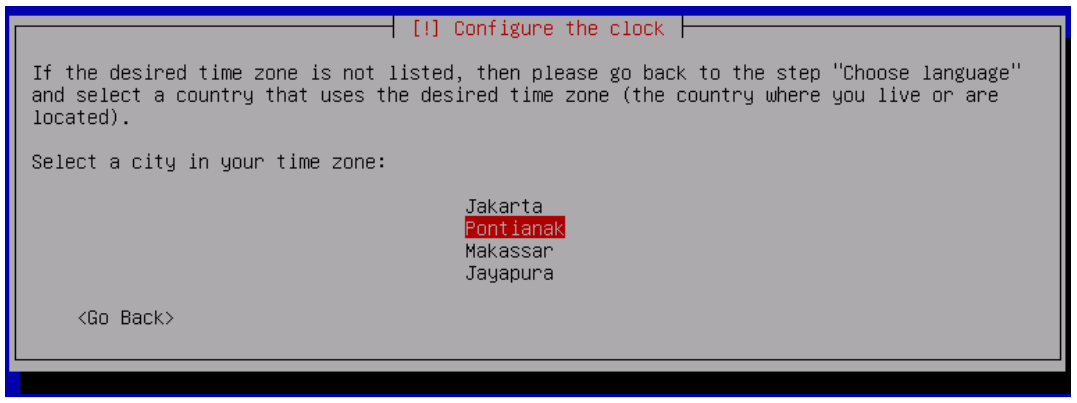
22. Isikan kembali password username siswa untuk verifikasi.



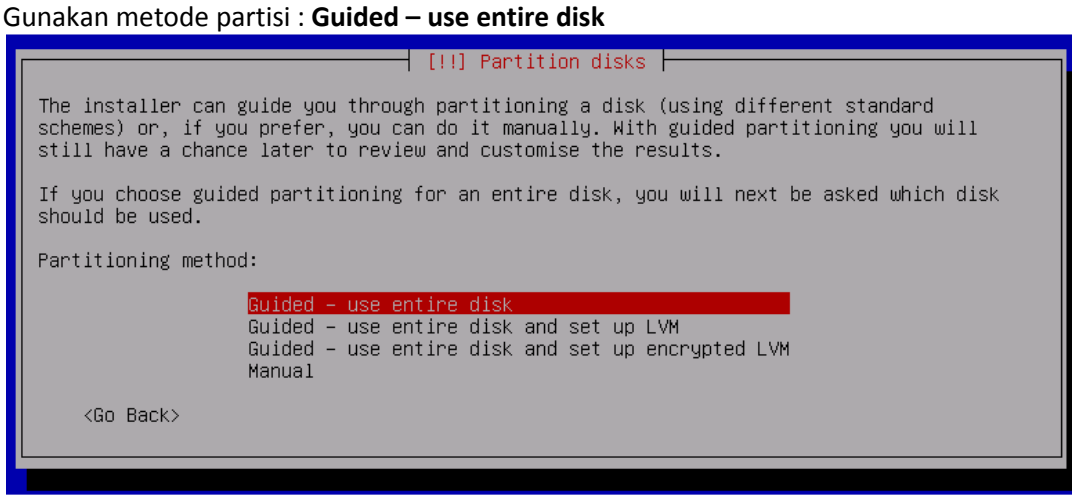
23. Batalkan untuk sinkronisasi waktu server



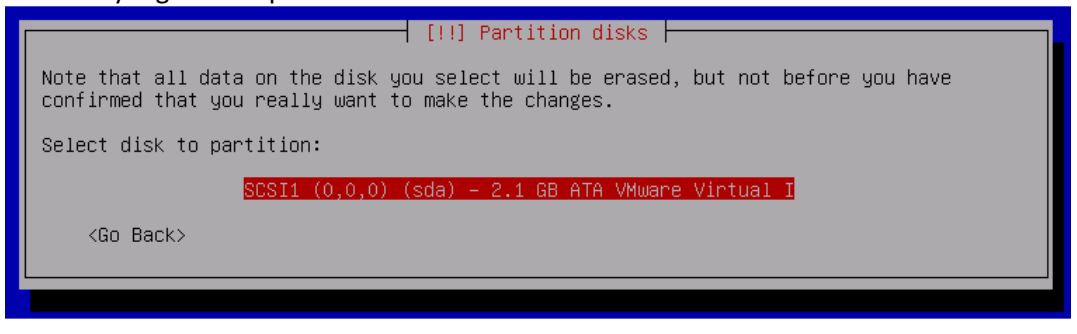
24. Pilih Zona Waktu : **Pontianak**



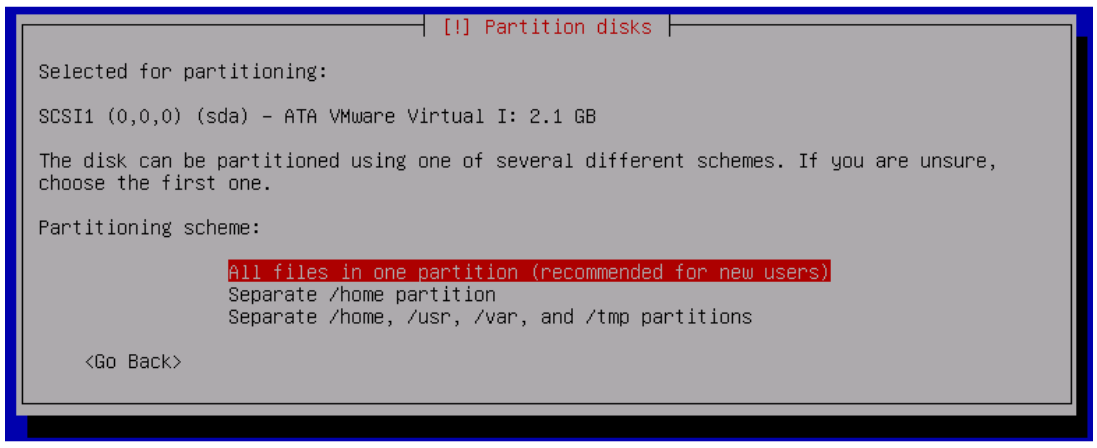
25. Gunakan metode partisi : **Guided – use entire disk**



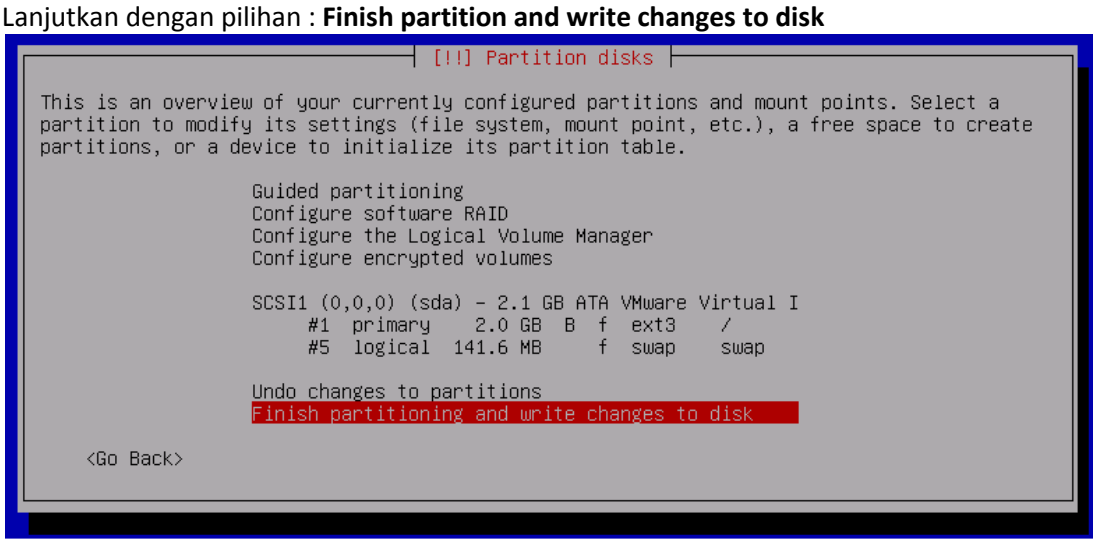
26. Pilih disk yang akan di partisi.



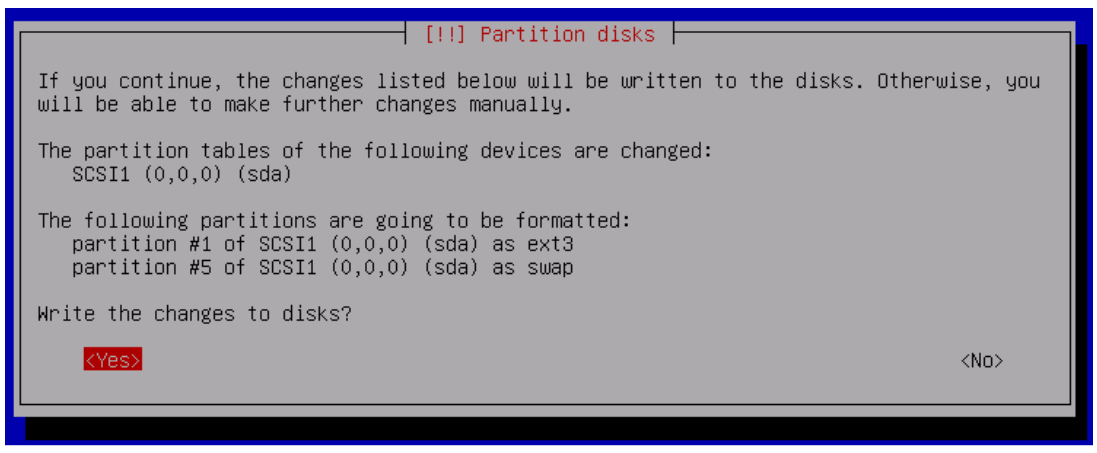
27. Pilih Skema Partisi : **All files in one partition**



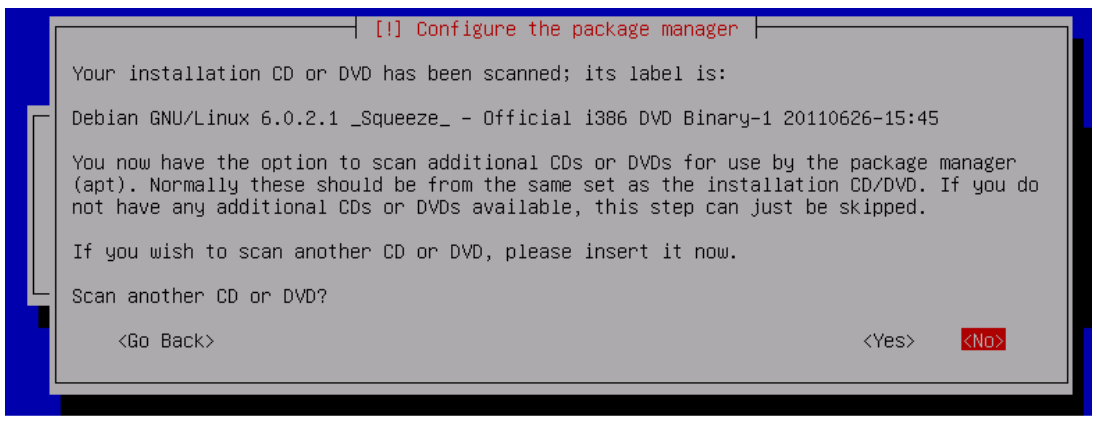
28. Lanjutkan dengan pilihan : **Finish partition and write changes to disk**



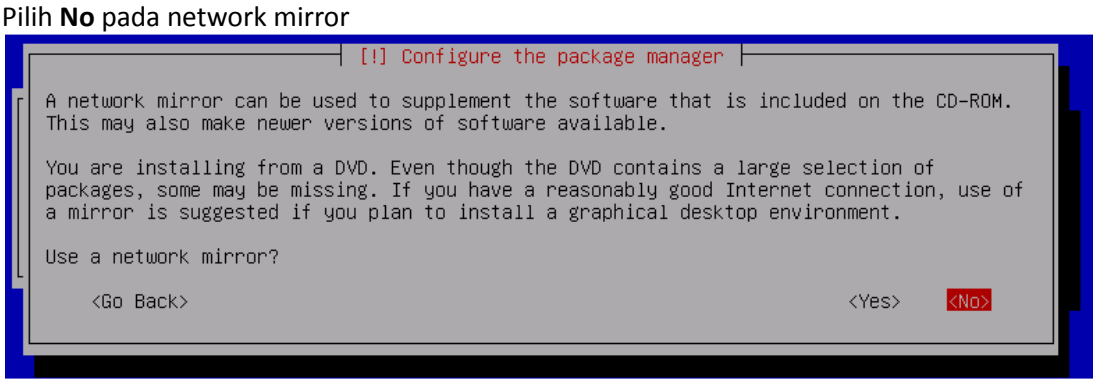
29. Konfirmasi untuk memulai partisi : **YES**



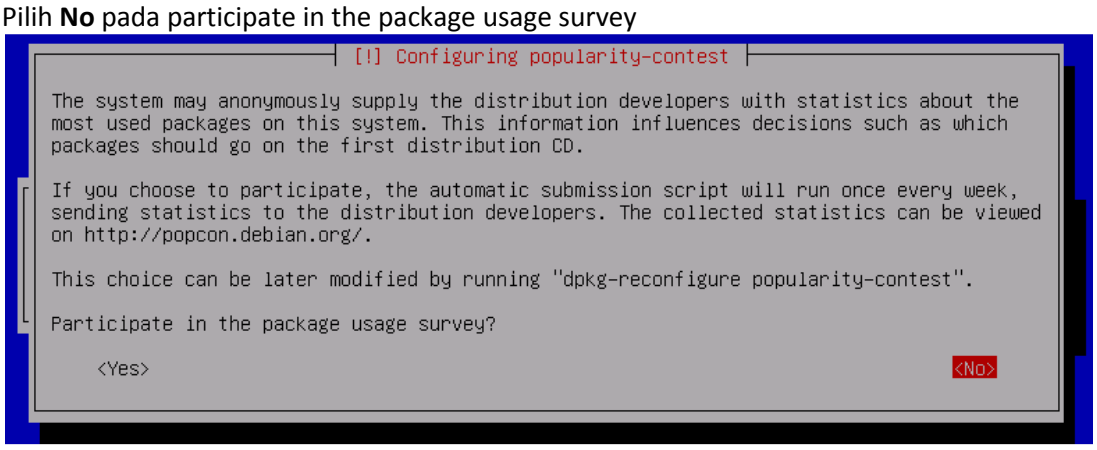
30. Pilih **No** untuk melanjutkan tanpa mengganti CD/DVD



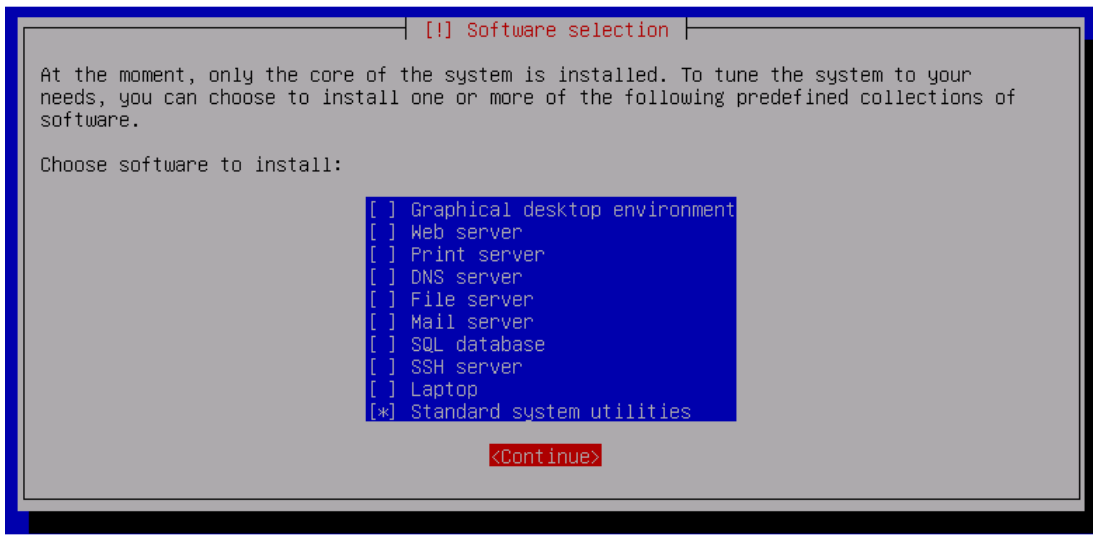
31. Pilih **No** pada network mirror



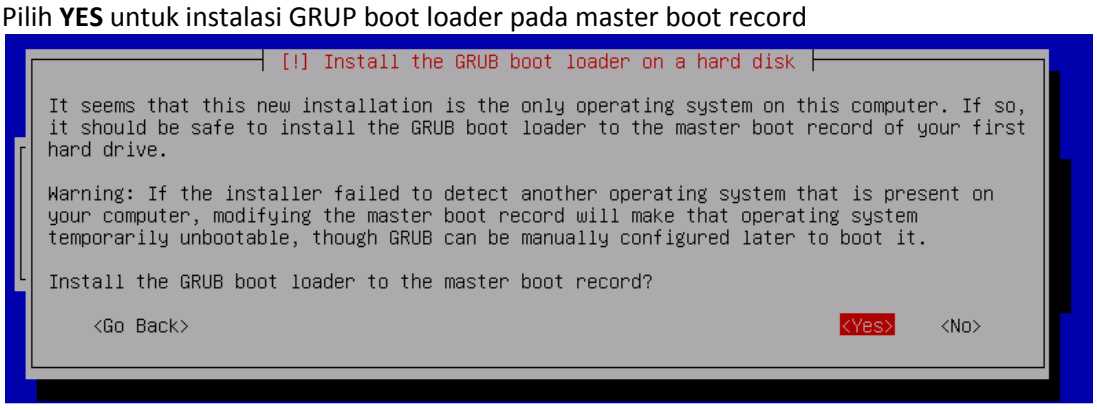
32. Pilih **No** pada participate in the package usage survey



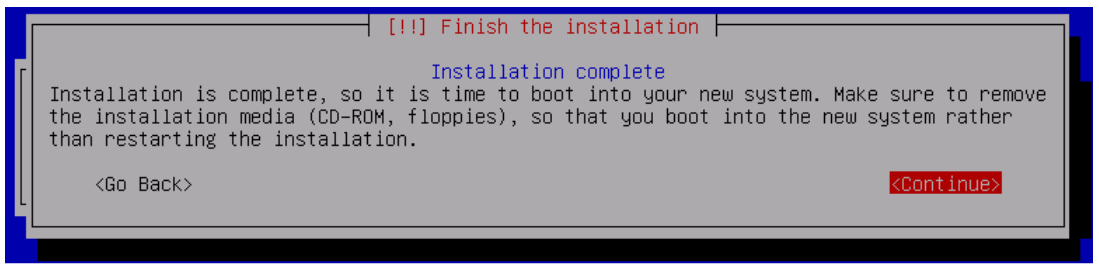
33. Pilih software yang di install hanya **Standard system utilities**



34. Pilih **YES** untuk instalasi GRUP boot loader pada master boot record

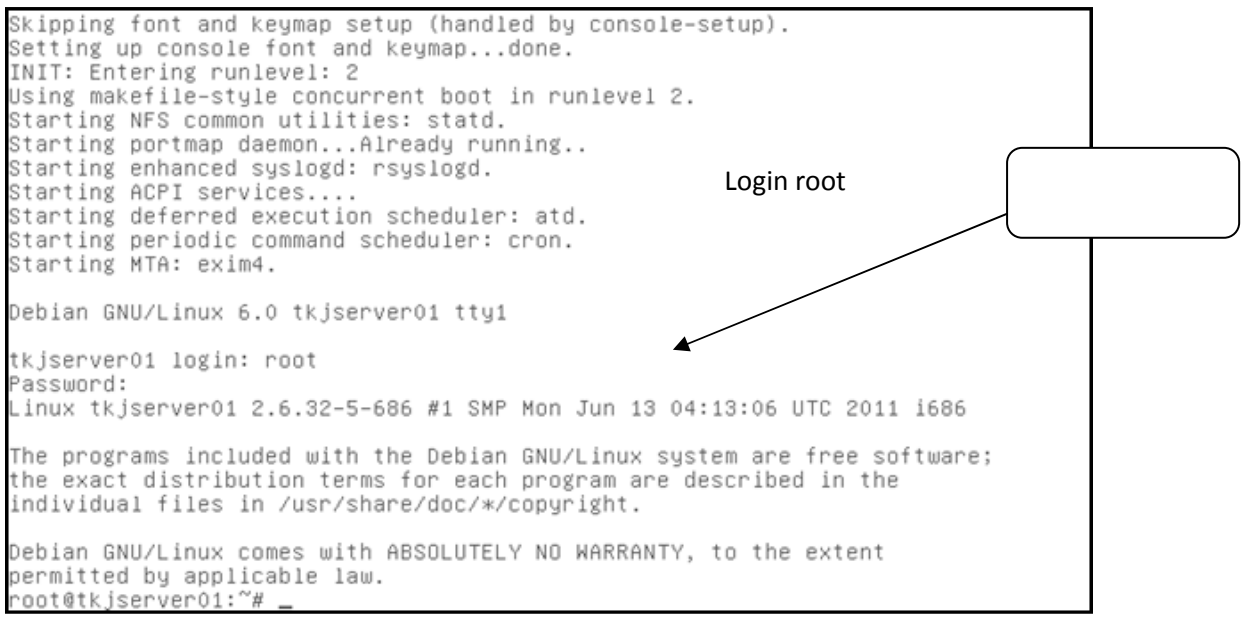


35. Tunggu instalasi selesai. Apabila sudah selesai, sebelum restart keluarkan DVD Debian dari DVD-ROM, atau dapat masuk ke menu BIOS sebelum booting untuk mengubah boot order.

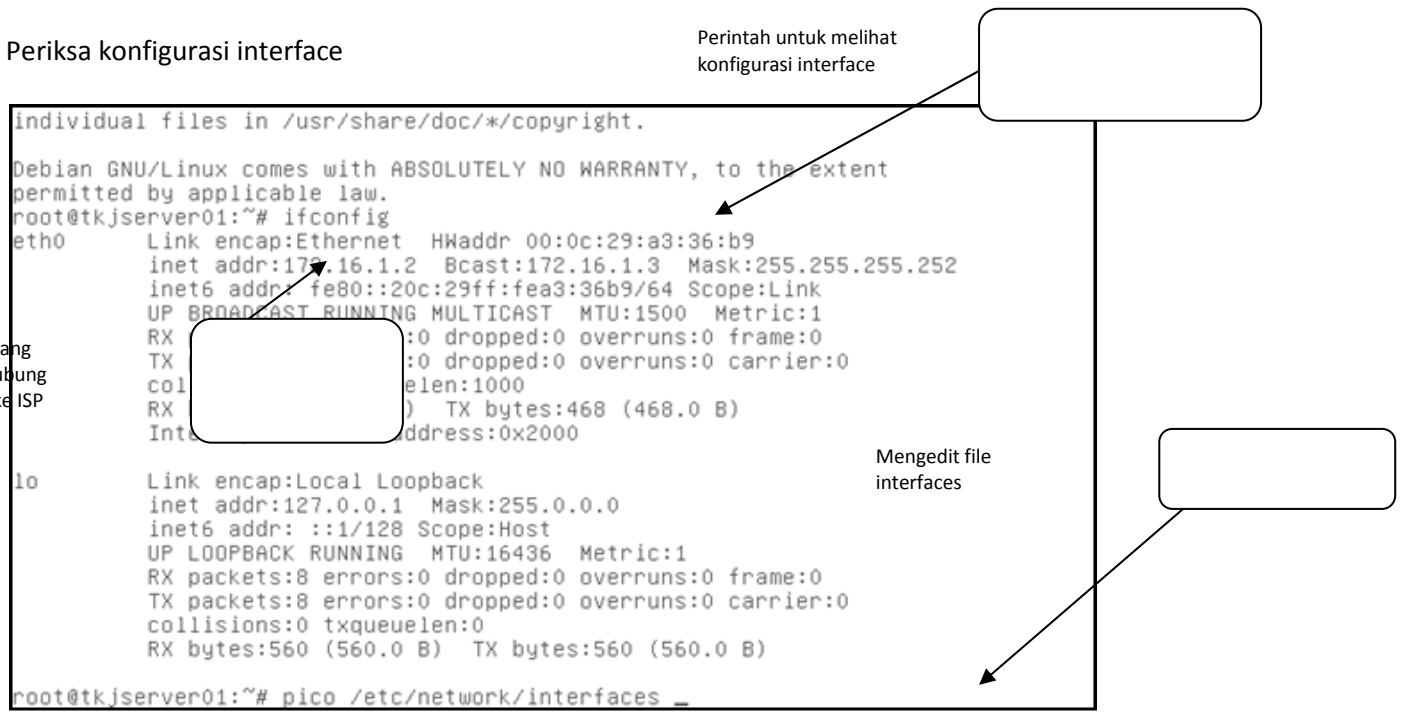


B. KONFIGURASI DEBIAN ROUTER

1. Gunakan login root untuk konfigurasi.



2. Periksa konfigurasi interface



3. Tambahkan IP LAN pada eth1. Gunakan trik ***'cut- unCut'*** untuk mempercepat dan sesuaikan dengan rancangan untuk IP LAN.

```
  GNU nano 2.2.4         File: /etc/network/interfaces                Modified


# The primary network interface
allow-hotplug eth0
iface eth0 inet static
        address 172.16.1.2
        netmask 255.255.255.252
        network 172.16.1.0
        broadcast 172.16.1.3
        gateway 172.16.1.1
        # dns-* options are implemented by the resolvconf package, if installed
        dns-nameservers 172.16.1.1
        dns-search sekolah.sch.id

# The Secondary (LAN) network interface
auto eth1
iface eth1 inet static
        address 192.168.50.1
        netmask 255.255.255.0
        network 192.168.50.0
        broadcast 192.168.50.255_

^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
```

Tambahkan sesuai dengan konsep TCP/IP

4. Simpan, dan restart

```
  GNU nano 2.2.4         File: /etc/network/interfaces

        netmask 255.255.255.252
        network 172.16.1.0
        broadcast 172.16.1.3
        gateway 172.16.1.1
        # dns-* options are implemented by the resolvconf package, if installed
        dns-nameservers 172.16.1.1
        dns-search sekolah.sch.id

# The Secondary (LAN) network interface
auto eth1
iface eth1 inet static
        address 192.168.50.1
        netmask 255.255.255.0
        network 192.168.50.0
        broadcast 192.168.50.255




                              [ Wrote 26 lines ]

root@tkjserver01:~# reboot_
```

Restart server untuk melihat dan mengaktifkan perubahan interface

5. Setelah login, cek interface yang sudah diaktifkan

```
root@tkjserver01:~# ifconfig |less_
```

6. Konfigurasi sudah berhasil, maka akan terdapat eth1 (Ethernet LAN yang sudah ditambahkan sebelumnya).

WAN

LAN

```
eth0      Link encap:Ethernet  HWaddr 00:0c:29:a3:36:b9
          inet addr:172.16.1.2  Bcast:172.16.1.3  Mask:255.255.255.252
          inet6 addr: fe80::20c:29ff:fea3:36b9/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:5 errors:0 dropped:0 overruns:0 frame:0
          TX packets:30 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:771 (771.0 B)  TX bytes:1476 (1.4 KiB)
          Interrupt:18 Base address:0x2000

eth1      Link encap:Ethernet  HWaddr 00:0c:29:a3:36:c3
          inet addr:192.168.50.1  Bcast:192.168.50.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fea3:36c3/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:31 errors:0 dropped:0 overruns:0 frame:0
          TX p      rors:0 dropped:0 overruns:0 carrier:0
          col       ueuelen:1000
          RX byt    (2.2 KiB)  TX bytes:468 (468.0 B)
          Interrupt:19 Base address:0x2080

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:16436  Metric:1
:_
```

```
          inet6 addr: fe80::20c:29ff:fea3:36b9/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:5 errors:0 dropped:0 overruns:0 frame:0
          TX packets:30 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:771 (771.0 B)  TX bytes:1476 (1.4 KiB)
          Interrupt:18 Base address:0x2000

eth1      Link encap:Ethernet  HWaddr 00:0c:29:a3:36:c3
          inet addr:192.168.50.1  Bcast:192.168.50.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fea3:36c3/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:31 errors:0 dropped:0 overruns:0 frame:0
          TX packets:6 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:2331 (2.2 KiB)  TX bytes:468 (468.0 B)
          Interrupt:19 Base address:0x2080

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:16436  Metric:1

[3]+  Stopped                 ifconfig | less
root@tkjserver01:~# _
```

7. Edit file **sysctl.conf** pada folder /etc/

```
root@tkjserver01:~# pico /etc/sysctl.conf _
```

8. Hapus tanda **#** untuk mengaktifkan ip forwarding

Setelah karakter **#** dihapus

```
  GNU nano 2.2.4            File: /etc/sysctl.conf          Modified

# See http://lwn.net/Articles/277146/
# Note: This may impact IPv6 TCP sessions too
#net.ipv4.tcp_syncookies=1

# Uncomment the next line to enable packet forwarding for IPv4
net.ipv4.ip_forward=1

# Uncomment the next line to enable packet forwarding for IPv6
#  Enabling this option disables Stateless Address Autoconfiguration
#  based on Router Advertisements for this host
#net.ipv6.conf.all.forwarding=1


###################################################################
# Additional settings - these settings can improve the network
# security of the host and prevent against some network attacks
# including spoofing attacks and man in the middle attacks through
# redirection. Some network environments, however, require that these
# settings are disabled so review and enable them as needed.
#

^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
```

9. Cek iptable untuk melihat routing.

Cek

Aktifkan nat, dan periksa kembali

ok

```
root@tkjserver01:~# iptables -t nat -n -L
Chain PREROUTING (policy ACCEPT)
target     prot opt source               destination

Chain POSTROUTING (policy ACCEPT)
target     prot opt source               destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
root@tkjserver01:~# iptables -t nat -A POSTROUTING -o eth0 -j MASQUERADE
root@tkjserver01:~# iptables -t nat -n -L
Chain PREROUTING (policy ACCEPT)
target     prot opt source               destination

Chain POSTROUTING (policy ACCEPT)
target     prot opt source               destination
MASQUERADE  all  --  0.0.0.0/0            0.0.0.0/0

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
root@tkjserver01:~# _
```

10. Simpan kongfigurasi agar permanent (tetap), dan ketika restart routing table dan nat tidak akan hilang.

```
root@tkjserver01:~# iptables-save > /etc/network/iptables.conf
root@tkjserver01:~# echo "iptables-restore < /etc/network/iptables.conf" >> /etc
/network/if-up.d/iptables"
> ^C
root@tkjserver01:~# _
```

```
root@tkjserver01:~# pico /etc/network/if-up.d/iptables_
```

```
  GNU nano 2.2.4       File: /etc/network/if-up.d/iptables

#!/bin/sh
iptables-restore </etc/network/iptables.conf
_

                          [ Read 2 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
```

```
root@tkjserver01:~# chmod +x /etc/network/if-up.d/iptables
root@tkjserver01:~# reboot_
```

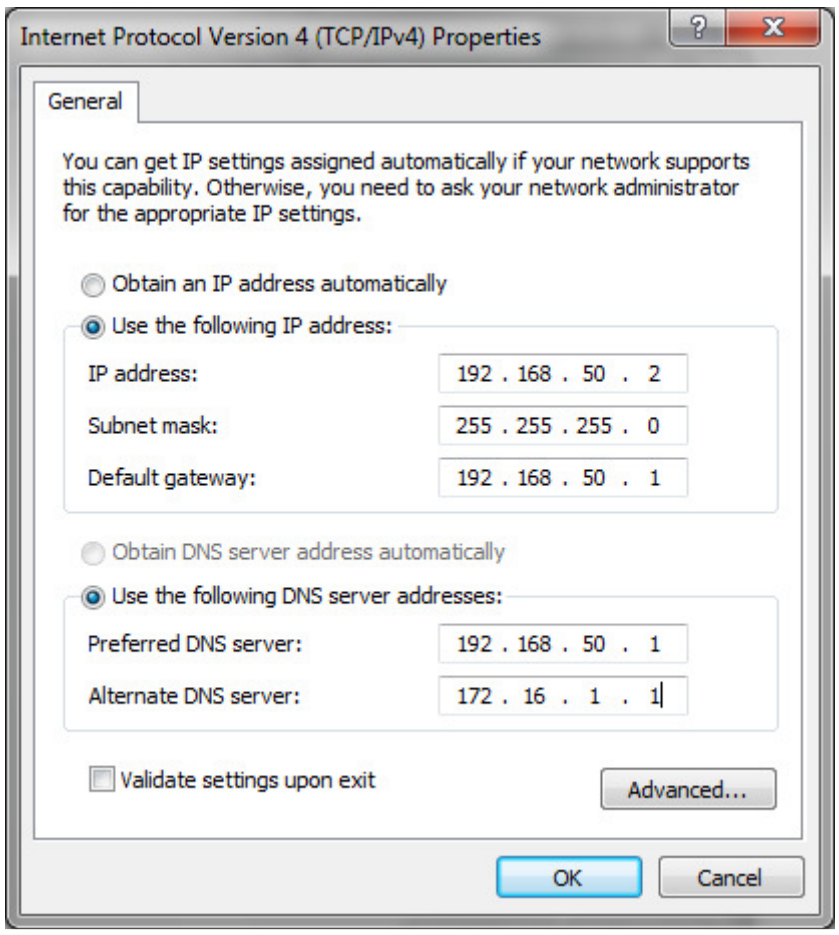
11. Restart server
12. Periksa kembali iptables untuk memastikan setelah restart routing tables dan nat masih berfungsi.

Cek

Ok

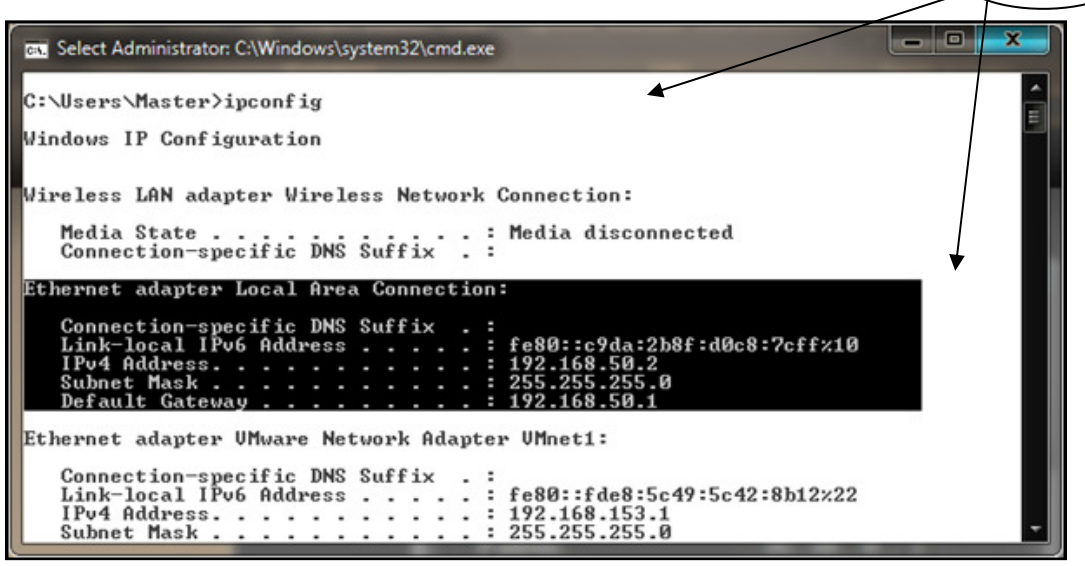
```
root@tkjserver01:~# iptables -t nat -n -L
Chain PREROUTING (policy ACCEPT)
target     prot opt source               destination

Chain POST      (policy ACCEPT)
target     prot opt source               destination
MASQUERADE  all  --  0.0.0.0/0            0.0.0.0/0

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
root@tkjserver01:~# _
```

13. Saatnya menguji di Client (Windows). Sesuaikan dengan konfigurasi di bawa ini

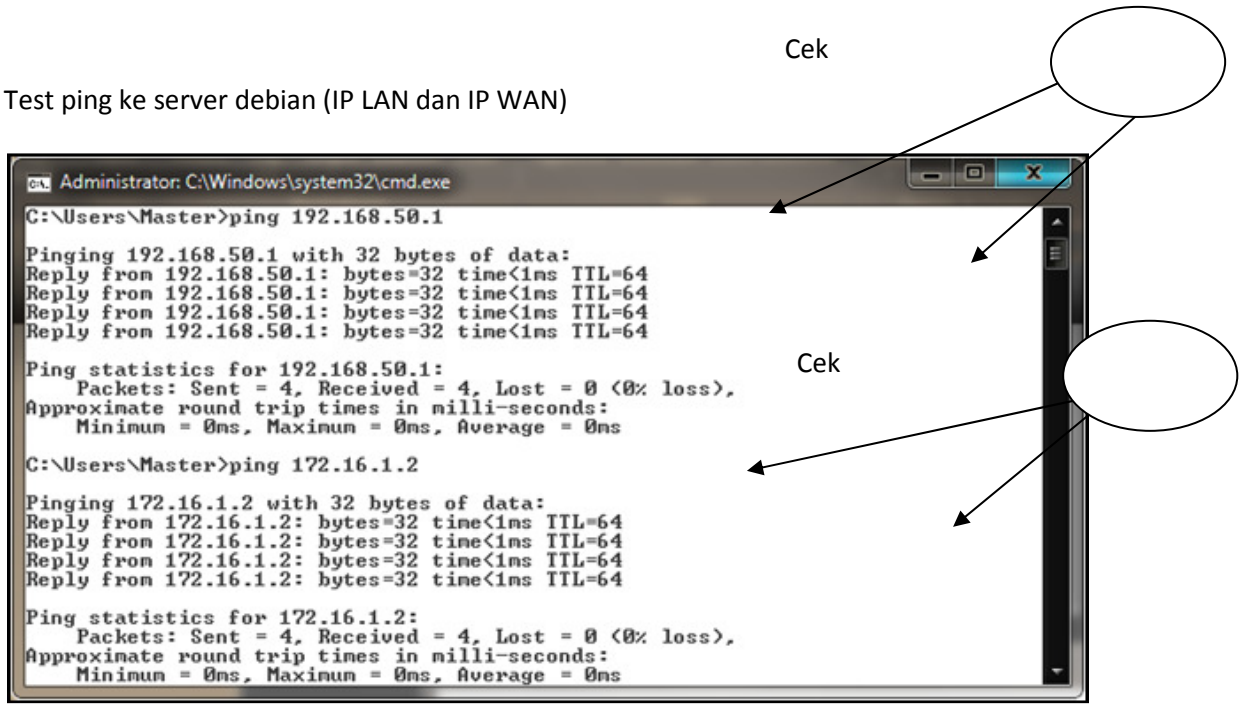


14. Pastikan konfigurasi tcp/ip client sudah benar

Cek

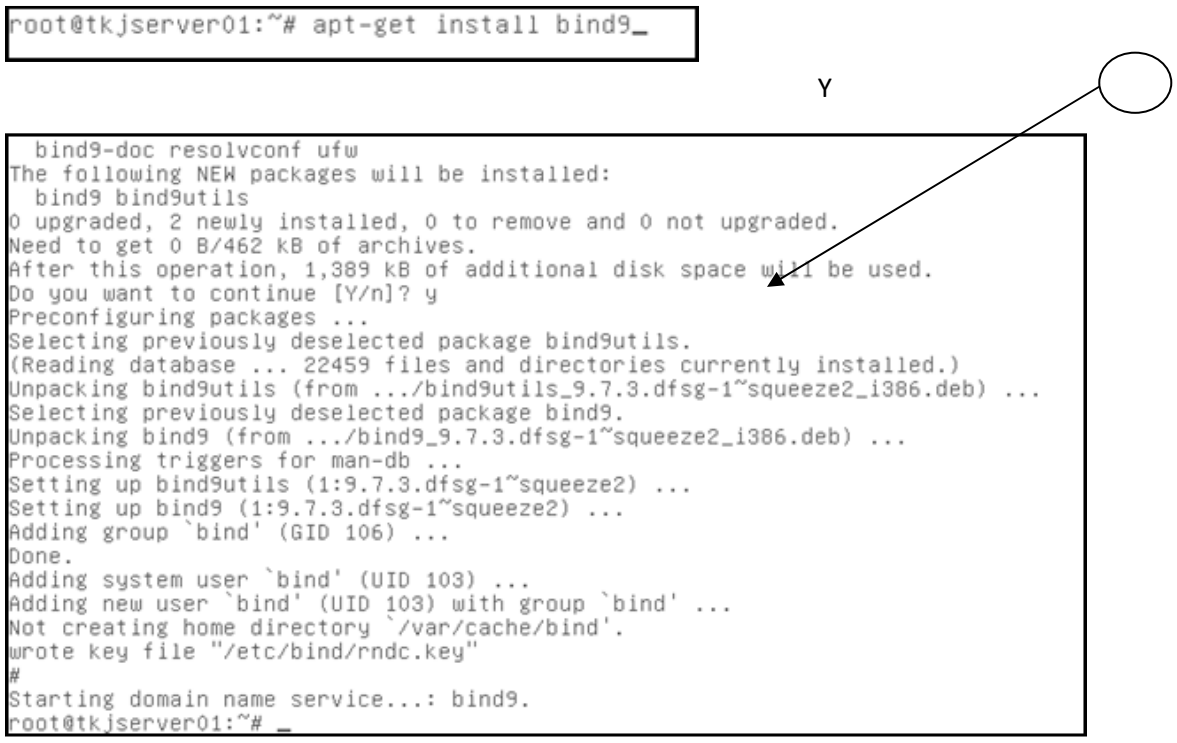


15. Test ping ke server debian (IP LAN dan IP WAN)



C. KONFIGURASI DEBIAN ROUTER

1. Masukan DVD Debian lalu Install paket DNS (BIND9)



2. Pada debian 6 (Squeeze), nama paket DNS dan servicenya adalah BIND9, namun nama folder yang terbentuk pada server adalah BIND

3. Masuk ke folder BIND, Periksa File yang ada pada Folder tersebut.

4. Copy file db.local → db.sekolah

5. Copy file db.local → db.sub

6. Copy file db.127 → db.192

7. Periksa kembali file yang terdapat pada folder Bind untuk memastikan file sudah tercopy.

Pindah ke folder bind

Melihat file pada folder

Mengcopy file yang diperlukan

```
root@tkjserver01:~# cd /etc/bind
root@tkjserver01:/etc/bind# ls
bind.keys  db.empty    named.conf.default-zones  zones.rfc1918
db.0       db.local    named.conf.local
db.127     db.root     named.conf.options
db.255     named.conf  rndc.key
root@tkjserver01:/etc/bind# cp db.local db.sekolah
root@tkjserver01:/etc/bind# cp db.local db.sub
root@tkjserver01:/etc/bind# cp db.127 db.192
root@tkjserver01:/etc/bind# ls
bind.keys  db.255    db.sekolah               named.conf.local
db.0       db.empty  db.sub                   named.conf.options
db.127     db.local  named.conf               rndc.key
db.192     db.root   named.conf.default-zones  zones.rfc1918
root@tkjserver01:/etc/bind# _
```

8. Edit dengan perintah ***pico*** atau ***nano*** pada folder bind file **named.conf.default-zones** gunakan trik 'cut-unCut'. Ingat baris yang ada jangan dihapus atau diedit. Tambahkan konfigurasi pada baris paling bawah.

Keterangan, didepan baris tambahkan // agar tidak dianggap perintah yang akan ikut di eksekusi

Cek bahwa ada hubungan antara file yang kita copy sebelumnya akan di link dengan domain, sub domain dan IP DNS

```
  GNU nano 2.2.4        File: named.conf.default-zones          Modified


zone "255.in-addr.arpa" {
        type master;
        file "/etc/bind/db.255";
};
// Tambahan Admin Domain sekolah.sch.id_
zone "sekolah.sch.id" {
        type master;
        file "/etc/bind/db.sekolah";
};

zone "sub.sekolah.sch.id" {
        type master;
        file "/etc/bind/db.sub";
};

zone "50.168.192.in-addr.arpa" {
        type master;
        file "/etc/bind/db.192";
};

^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
```

9. Edit pada folder bind file **named.conf.options**

```
root@tkjserver01:/etc/bind# pico named.conf.options _
```

Tambahkan IP ISP dan aktifkan query

```
  GNU nano 2.2.4          File: named.conf.options              Modified

options {
        directory "/var/cache/bind";

        // If there is a firewall between you and nameservers you want
        // to talk to, you may need to fix the firewall to allow multiple
        // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

        // If your ISP provided one or more IP addresses for stable
        // nameservers, you probably want to use them as forwarders.
        // Uncomment the following block, and insert the addresses replacing
        // the all-0's placeholder.

         forwarders {
               172.16.1.1;
         };
         allow-query { any; };_

        auth-nxdomain no;    # conform to RFC1035
        listen-on-v6 { any; };
};

^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
```

10. Masih pada folder Bind, edit file **resolv.conf**

```
root@tkjserver01:/etc/bind# pico /etc/resolv.conf _
```

11. Sesuaikan dan tambahkan IP Address name server sebagai berikut.

```
  GNU nano 2.2.4            File: /etc/resolv.conf                  Modified

search sekolah.sch.id
nameserver 127.0.0.1
nameserver 192.168.50.1_
nameserver 172.16.1.1

^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
```

12. Edit file db.sekolah

```
root@tkjserver01:/etc/bind# pico db.sekolah_
```

13. Sesuaikan dengan hostname, domain, subdomain dan IP pada rancangan (soal).

```
  GNU nano 2.2.4              File: db.sekolah                      Modified

;
; BIND data file for local loopback interface
;
$TTL    604800
@       IN      SOA     tkjserver01.sekolah.sch.id. tkjserver01.sekolah.sch.id.$
                              2         ; Serial
                         604800         ; Refresh
                          86400         ; Retry
                        2419200         ; Expire
                         604800 )       ; Negative Cache TTL
;
@       IN      NS              tkjserver.sekolah01.sch.id.
@       IN      MX      10      mail.sekolah.sch.id.
@       IN      A               192.168.50.1

tkjserver01     IN      A       192.168.50.1
www             IN      CNAME   tkjserver01
mail            IN      CNAME   tkjserver01_


^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
```

14. Edit file db.sub

```
root@tkjserver01:/etc/bind# pico db.sub_
```

15. Sesuaikan dengan sub domain dan ip address pada rancangan (soal)

```
  GNU nano 2.2.4                File: db.sub                              Modified

;
; BIND data file for local loopback interface
;
$TTL    604800
@       IN      SOA     sub.sekolah.sch.id. sub.sekolah.sch.id. (
                              2         ; Serial
                         604800         ; Refresh
                          86400         ; Retry
                        2419200         ; Expire
                         604800 )       ; Negative Cache TTL
;
@       IN      NS      sub.sekolah.sch.id.
@       IN      A       192.168.50.1

sub     IN      A       192.168.50.1
www     IN      CNAME   sub


^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
```

16. Edit file db.192

```
root@tkjserver01:/etc/bind# pico db.192_
```

17. Sesuaikan dengan hostname dan IP Address yang digunakan pada rancangan (soal)

```
  GNU nano 2.2.4                File: db.192                              Modified

;
; BIND reverse data file for local loopback interface
;
$TTL    604800
@       IN      SOA     servertkj01.sekolah.sch.id. servertkj01.sekolah.sch.id.$
                              1         ; Serial
                         604800         ; Refresh
                          86400         ; Retry
                        2419200         ; Expire
                         604800 )       ; Negative Cache TTL
;
@       IN      NS      servertkj01.sekolah.sch.id.
1       IN      PTR     servertkj01.sekolah.sch.id.


^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
```

Angka ‘1’ di dapat dari angka terakhir pada
IP DNS (192.168.50.**1**)

18. Restart service DNS (Bind9)

```
root@tkjserver01:/etc/bind# /etc/init.d/bind9 restart
Stopping domain name service...: bind9 waiting for pid 1621 to die.
Starting domain name service...: bind9.
root@tkjserver01:/etc/bind# _
```

19. Periksa konfigurasi DNS di Server Debian

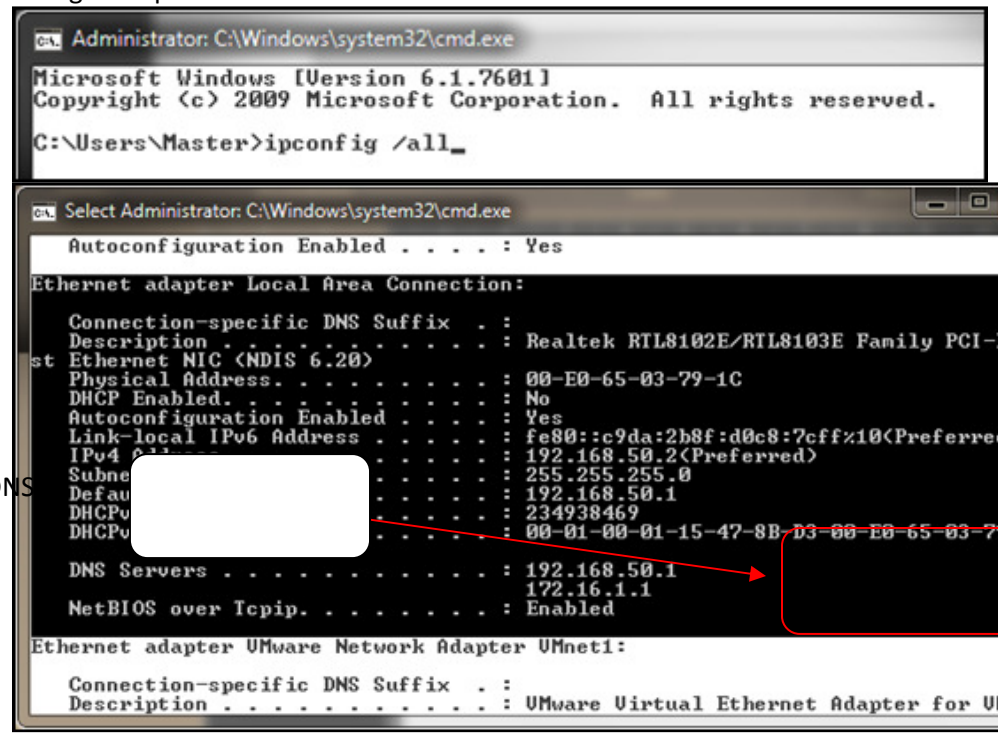
```
root@tkjserver01:/etc/bind# nslookup tkjserver01.sekolah.sch.id
Server:         127.0.0.1
Address:        127.0.0.1#53

Name:   tkjserver01.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# nslookup sub.sekolah.sch.id
Server:         127.0.0.1
Address:        127.0.0.1#53

Name:   sub.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# nslookup mail.sekolah.sch.id
Server:         127.0.0.1
Address:        127.0.0.1#53

mail.sekolah.sch.id     canonical name = tkjserver01.sekolah.sch.id.
Name:   tkjserver01.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# _
```

```
root@tkjserver01:/etc/bind# nslookup 192.168.50.1
Server:         127.0.0.1
Address:        127.0.0.1#53

1.50.168.192.in-addr.arpa       name = servertkj01.sekolah.sch.id.

root@tkjserver01:/etc/bind# nslookup tkjserver01
Server:         127.0.0.1
Address:        127.0.0.1#53

Name:   tkjserver01.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# nslookup sekolah.sch.id
Server:         127.0.0.1
Address:        127.0.0.1#53

Name:   sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# _
```

```
root@tkjserver01:/etc/bind# nslookup www
Server:         127.0.0.1
Address:        127.0.0.1#53

www.sekolah.sch.id      canonical name = tkjserver01.sekolah.sch.id.
Name:   tkjserver01.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# nslookup sub
Server:         127.0.0.1
Address:        127.0.0.1#53

Name:   sub.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# nslookup mail
Server:         127.0.0.1
Address:        127.0.0.1#53

mail.sekolah.sch.id     canonical name = tkjserver01.sekolah.sch.id.
Name:   tkjserver01.sekolah.sch.id
Address: 192.168.50.1

root@tkjserver01:/etc/bind# _
```

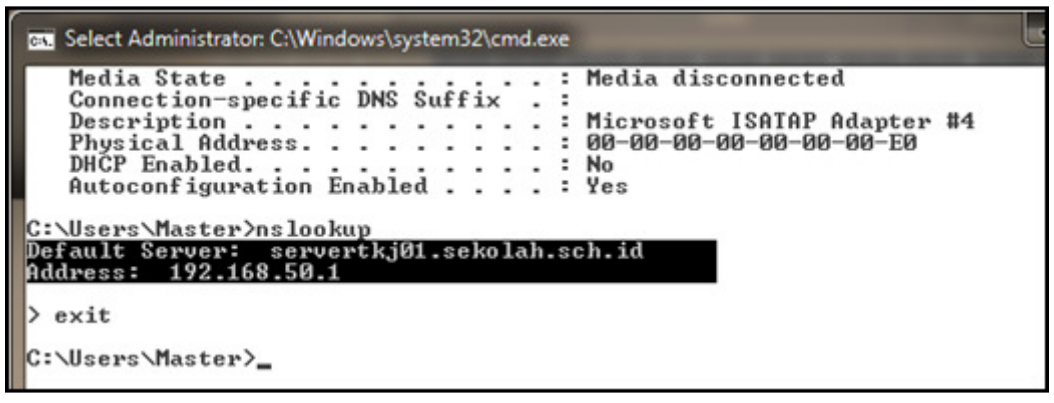
20. Setelah sukses di server debian, kita harus menguji berfungsi tidaknya DNS di client.

21. Pada Client (Windows) Gunakan perintah **ipconfig /all** untuk memeriksa semua konfigurasi ip



Pastikan IP DNS sudah benar

22. Gunakan perintah nslookup untuk memeriksa apakah client sudah berhasil mendapat DNS Server.



23. Lakukan pengujian satu persatu dari client. Apabila berhasil maka akan ditunjukkan sebagai berikut.

```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\Master>nslookup 192.168.50.1
Server:  servertkj01.sekolah.sch.id
Address:  192.168.50.1

Name:    servertkj01.sekolah.sch.id
Address:  192.168.50.1


C:\Users\Master>nslookup tkjserver01.sekolah.sch.id
Server:  servertkj01.sekolah.sch.id
Address:  192.168.50.1

Name:    tkjserver01.sekolah.sch.id
Address:  192.168.50.1


C:\Users\Master>nslookup mail.sekolah.sch.id
Server:  servertkj01.sekolah.sch.id
Address:  192.168.50.1

Name:    tkjserver01.sekolah.sch.id
Address:  192.168.50.1
Aliases:  mail.sekolah.sch.id


C:\Users\Master>nslookup sub.sekolah.sch.id
Server:  servertkj01.sekolah.sch.id
Address:  192.168.50.1

Name:    sub.sekolah.sch.id
Address:  192.168.50.1


C:\Users\Master>nslookup www.sekolah.sch.id
Server:  servertkj01.sekolah.sch.id
Address:  192.168.50.1

Name:    tkjserver01.sekolah.sch.id
Address:  192.168.50.1
Aliases:  www.sekolah.sch.id
```

D. KONFIGURASI WEB SERVER

1. Masukan DVD Debian lalu Install paket **apache2** dan **php5**

```
root@tkjserver01:/etc/bind# apt-get install apache2 php5_
```

2. Edit file pada folder apache2/sites-available yaitu file **default** sesuaikan dengan nama admin, domain dan subdomain.

```
root@tkjserver01:/etc/bind# pico /etc/apache2/sites-available/default_
```

```
 GNU nano 2.2.4     File: /etc/apache2/sites-available/default       Modified

<VirtualHost *:80>
_       ServerAdmin admin@sekolah.sch.id
        serverName  www.sekolah.sch.id
        ServerAlias sekolah.sch.id

        DocumentRoot /var/www
        <Directory />
                Options FollowSymLinks
                AllowOverride None
        </Directory>
        <Directory /var/www/>
                Options Indexes FollowSymLinks MultiViews
                AllowOverride None
                Order allow,deny
                allow from all
        </Directory>

        ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/
        <Directory "/usr/lib/cgi-bin">
                AllowOverride None

^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
```

3. Restart service **apache2**, kemudian edit file pada folder **/var/www** file **index.html**

```
root@tkjserver01:/etc/bind# /etc/init.d/apache2 restart
Restarting web server: apache2 ... waiting .
root@tkjserver01:/etc/bind# pico /var/www/index.html_
```

```
  GNU nano 2.2.4          File: /var/www/index.html          Modified

<html><body><h1>www.sekolah.sch.id berhasil diakses</h1>
<p>This is the default web page for this server.</p>
<p>The web server software is running but no content has been added, yet.</p>
</body></html>

^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
```

Kalimat yang akan ditampilkan di browser ketika client berhasil mengakses web server

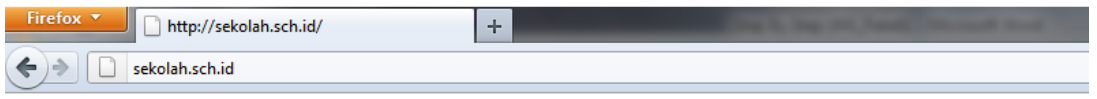
4. Pada client (windows), buka browser (internet explorer atau browser lain). Ketikan alamat **www.sekolah.sch.id**

www.sekolah.sch.id berhasil diakses

This is the default web page for this server.

The web server software is running but no content has been added, yet.

5. Atau karena sudah ada alias ketikan saja alamatnya : sekolah.sch.id

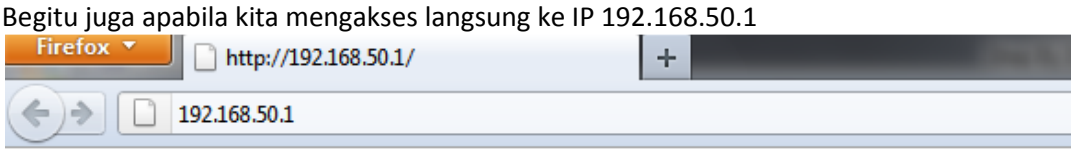


www.sekolah.sch.id berhasil diakses

This is the default web page for this server.

The web server software is running but no content has been added, yet.

6. Begitu juga apabila kita mengakses langsung ke IP 192.168.50.1



www.sekolah.sch.id berhasil diakses

This is the default web page for this server.

The web server software is running but no content has been added, yet.

E. KONFIGURASI PROXY SERVER

1. Masukan DVD Debian lalu Install paket **squid**

```
root@tkjserver01:~# apt-get install squid_
```

2. Copy file **squid.conf ➔ squid.conf.bak** (bertujuan untuk membackup konfigurasi lama apabila sewaktu-waktu diperlukan - Perhatikan selalu dan pastikan letak file selalu di folder /etc/squid)

```
root@tkjserver01:~# cp /etc/squid/squid.conf /etc/squid/squid.conf.bak_
```

3. Menghapus file squid.conf

```
root@tkjserver01:~# rm /etc/squid/squid.conf_
```

4. Membuat file squid.conf

```
root@tkjserver01:~# pico /etc/squid/squid.conf_
```

5. Tulis konfigurasi squid sebagai berikut :

```
  GNU nano 2.2.4          File: /etc/squid/squid.conf                Modified

acl all src all
acl localnet src 192.168.50.0/24
acl situs url_regex -i "/etc/squid/blokir.txt"
http_access deny situs
http_access allow localnet
http_access allow all
http_port 3128 transparent
cache_mem 8 mb
memory_replacement_policy heap GDSF
cache_replacement_policy heap LFUDA
store_dir_select_algorithm round-robin
cache_dir aufs /cache 10000 24 254
cache_store_log none
cache_access_log /var/log/squid/access.log
cache_effective_user proxy
cache_effective_group proxy
visible_hostname www.sekolah.sch.id
cache_mgr admin@sekolah.sch.id_


^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
```

Range IP Address Client (LAN)

Situs yang akan diblok dibuat pada folder dan file ini

Port Proxy yang digunakan adalah 3128 dan proxy yang digunakan adalah transparent

Visible hostsname

Cache manager

6. Membuat daftar situs yang akan diblokir

```
root@tkjserver01:~# pico /etc/squid/blokir.txt_
```

```
  GNU nano 2.2.4               File: blokir.txt

sub.sekolah.sch.id
www.facebook.com
www.youtube.com
_

                          [ Read 3 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
```

7. Buat Folder cache untuk proxy (ingat letaknya harus di folder root)

```
root@tkjserver01:~# mkdir /cache_
```

8. Lanjutkan dengan perintah chown (change owner) pada file blokir. Stop Proxy sementara untuk membuat swap directory proxy.

```
root@tkjserver01:~# chown -R proxy:proxy /etc/squid/blokir.txt
root@tkjserver01:~# chown -R proxy:proxy /cache
root@tkjserver01:~# /etc/init.d/squid stop
Stopping Squid HTTP proxy: squid.
root@tkjserver01:~# squid -z
2012/01/28 12:35:46| Creating Swap Directories
root@tkjserver01:~# _
```

9. Jalankan kembali proxy dan edit file rc.local tambahkan routing

```
root@tkjserver01:~# /etc/init.d/squid start
Starting Squid HTTP proxy: squid.
root@tkjserver01:~# pico /etc/rc.local_
```

```
  GNU nano 2.2.4               File: /etc/rc.local                    Modified

#!/bin/sh -e
#
# rc.local
#
# This script is executed at the end of each multiuser runlevel.
# Make sure that the script will "exit 0" on success or any other
# value on error.
#
# In order to enable or disable this script just change the execution
# bits.
#
# By default this script does nothing.
iptables -A PREROUTING -t nat -p tcp --dport 80 -j REDIRECT --to-port 3128_
exit 0

^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
```

10. Restart proxy

```
root@tkjserver01:~# /etc/init.d/squid restart
Restarting Squid HTTP proxy: squid Waiting.....................done.
.
root@tkjserver01:~# _
```

ERROR

The requested URL could not be retrieved

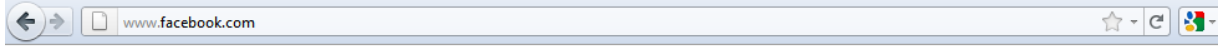
The following error was encountered while trying to retrieve the URL: http://sub.sekolah.sch.id/

Access Denied.

Access control configuration prevents your request from being allowed at this time. Please contact your service provider if you feel this is incorrect.

Your cache administrator is admin@sekolah.sch.id.

Generated Sun, 29 Jan 2012 15:27:46 GMT by proxy.sekolah.sch.id (squid/2.7.STABLE9)



ERROR

The requested URL could not be retrieved

The following error was encountered while trying to retrieve the URL: http://www.facebook.com/

Access Denied.

Access control configuration prevents your request from being allowed at this time. Please contact your service provider if you feel this is incorrect.

Your cache administrator is admin@sekolah.sch.id.

Generated Sun, 29 Jan 2012 15:25:51 GMT by proxy.sekolah.sch.id (squid/2.7.STABLE9)

ERROR

The requested URL could not be retrieved

The following error was encountered while trying to retrieve the URL: http://www.youtube.com/

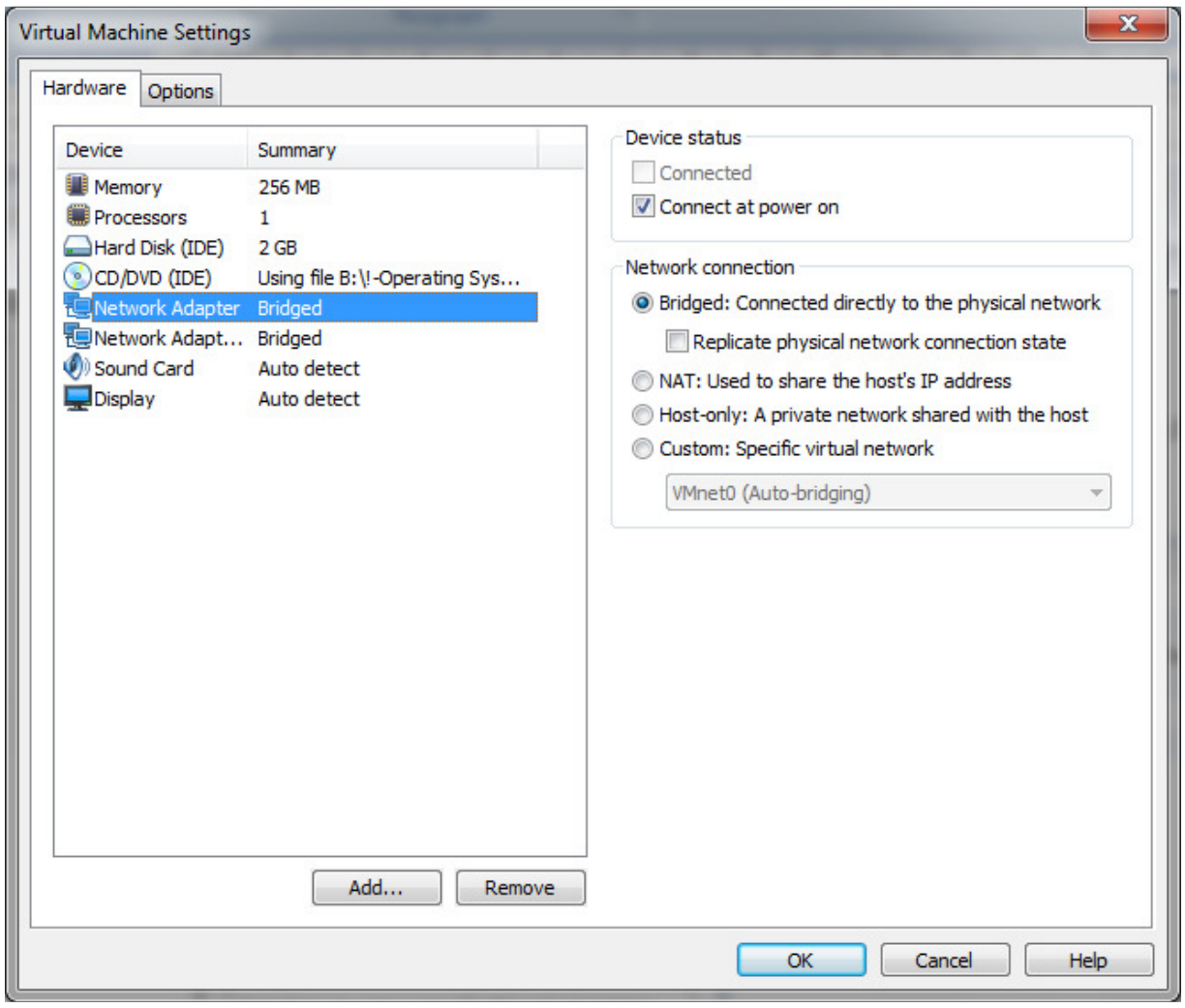
Access Denied.

Access control configuration prevents your request from being allowed at this time. Please contact your service provider if you feel this is incorrect.

Your cache administrator is admin@sekolah.sch.id.

Generated Sun, 29 Jan 2012 15:27:03 GMT by proxy.sekolah.sch.id (squid/2.7.STABLE9)

Catatan :


Virtual Machine Settings
Hardware
Options
Device
Summary
Memory
256 MB
Processors
1
Hard Disk (IDE)
2 GB
CD/DVD (IDE)
Using file B:\!-Operating Sys...
Network Adapter
Bridged
Network Adapt...
Bridged
Sound Card
Auto detect
Display
Auto detect
Add...
Remove
Device status
Connected
Connect at power on
Network connection
Bridged: Connected directly to the physical network
Replicate physical network connection state
NAT: Used to share the host's IP address
Host-only: A private network shared with the host
Custom: Specific virtual network
VMnet0 (Auto-bridging)
OK
Cancel
Help