

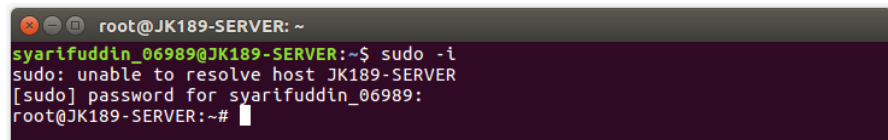
TUGAS PRAKTIKUM

SOAL PRAKTIKUM

Buatkan sebuah Mail Server dari domain yang telah kalian buat pada pertemuan sebelumnya, konfigurasi pada server kalian dan dapat diakses oleh kedua client. Kemudian, masing-masing client saling bertukar email melalui Mail Server yang telah kalian buat! (60 poin)

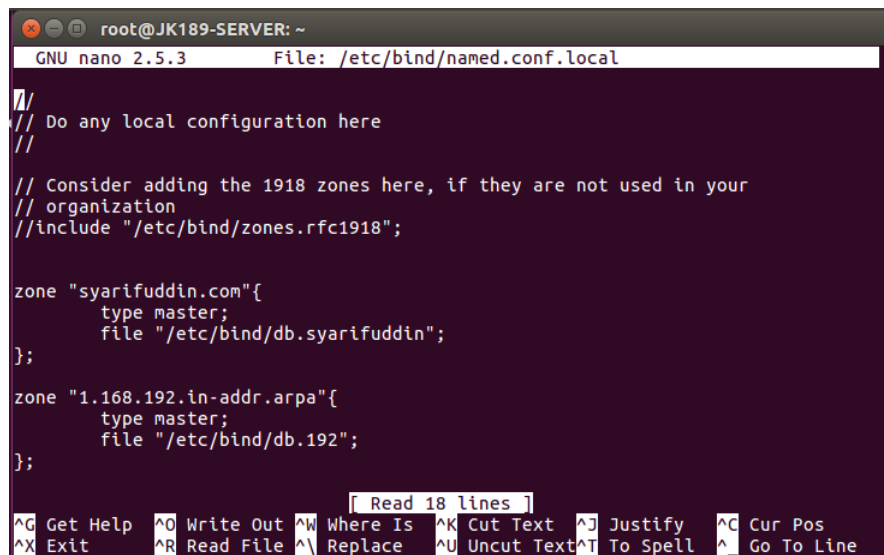
Jawaban :

1. Login sebagai root.



```
root@JK189-SERVER: ~
syarifuddin_06989@JK189-SERVER:~$ sudo -i
sudo: unable to resolve host JK189-SERVER
[sudo] password for syarifuddin_06989:
root@JK189-SERVER:~#
```

2. Pertama set IP server menjadi **192.168.1.1/24**, dan install **nginx** serta **bind** dengan domain nama_panggilan.com yang memiliki subdomain mail.nama_panggilan.com



```
root@JK189-SERVER: ~
GNU nano 2.5.3 File: /etc/bind/named.conf.local

//
// Do any local configuration here
//

// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

zone "syarifuddin.com"{
    type master;
    file "/etc/bind/db.syarifuddin";
};

zone "1.168.192.in-addr.arpa"{
    type master;
    file "/etc/bind/db.192";
};

Read 18 lines
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

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```
root@JK189-SERVER: ~
GNU nano 2.5.3 File: /etc/bind/db.syarifuddin

; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA syarifuddin.com. root.syarifuddin.com. (
; Serial
        2      ; Refresh
        604800 ; Retry
        86400  ; Expire
        2419200      ; Negative Cache TTL
);
@ IN NS syarifuddin.com.
@ IN A 192.168.1.1
www IN A 192.168.1.1
datadiri IN CNAME www
pendidikan IN CNAME www
sosmed IN CNAME www
mail IN CNAME www

[ Read 18 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

```
root@JK189-SERVER: ~
GNU nano 2.5.3 File: /etc/bind/db.192

; BIND reverse data file for local loopback interface
;
$TTL 604800
@ IN SOA syarifuddin.com. root.syarifuddin.com. (
; Serial
        1      ; Refresh
        604800 ; Retry
        86400  ; Expire
        2419200      ; Negative Cache TTL
);
@ IN NS www.
1 IN PTR www.syarifuddin.com.
1 IN PTR pendidikan.syarifuddin.com.
1 IN PTR sosmed.syarifuddin.com.
1 IN PTR datadiri.syarifuddin.com.
1 IN PTR mail.syarifuddin.com.

[ Read 17 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

3. Tambahkan domain baru pada file “/etc/hosts” dengan perintah :
nano /etc/hosts

```
root@JK189-SERVER: ~
GNU nano 2.5.3 File: /etc/hosts Modified

127.0.0.1    localhost
127.0.1.1    SERVER-JK189

192.168.1.1  syarifuddin.com
192.168.1.1  datadiri.syarifuddin.com
192.168.1.1  sosmed.syarifuddin.com
192.168.1.1  pendidikan.syarifuddin.com
192.168.1.1  mail.syarifuddin.com

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

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

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```
root@JK189-SERVER: ~
root@JK189-SERVER:~# nslookup 192.168.1.1
Server:      192.168.1.1
Address:     192.168.1.1#53

1.1.168.192.in-addr.arpa      name = mail.syarifuddin.com.
1.1.168.192.in-addr.arpa      name = datadiri.syarifuddin.com.
1.1.168.192.in-addr.arpa      name = pendidikan.syarifuddin.com.
1.1.168.192.in-addr.arpa      name = www.syarifuddin.com.
1.1.168.192.in-addr.arpa      name = sosmed.syarifuddin.com.

root@JK189-SERVER:~#
```

4. Install postfix dengan perintah:

apt-get install postfix

```
root@JK189-SERVER: ~
root@JK189-SERVER:~# apt install postfix
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
```

```
root@JK189-SERVER: ~
Package configuration

Postfix Configuration

Please select the mail server configuration type that best meets your
needs.

No configuration:
  Should be chosen to leave the current configuration unchanged.
Internet site:
  Mail is sent and received directly using SMTP.
Internet with smarthost:
  Mail is received directly using SMTP or by running a utility such
  as fetchmail. Outgoing mail is sent using a smarthost.
Satellite system:
  All mail is sent to another machine, called a 'smarthost', for
  delivery.
Local only:

<Ok>
```

```
root@JK189-SERVER: ~
Package configuration

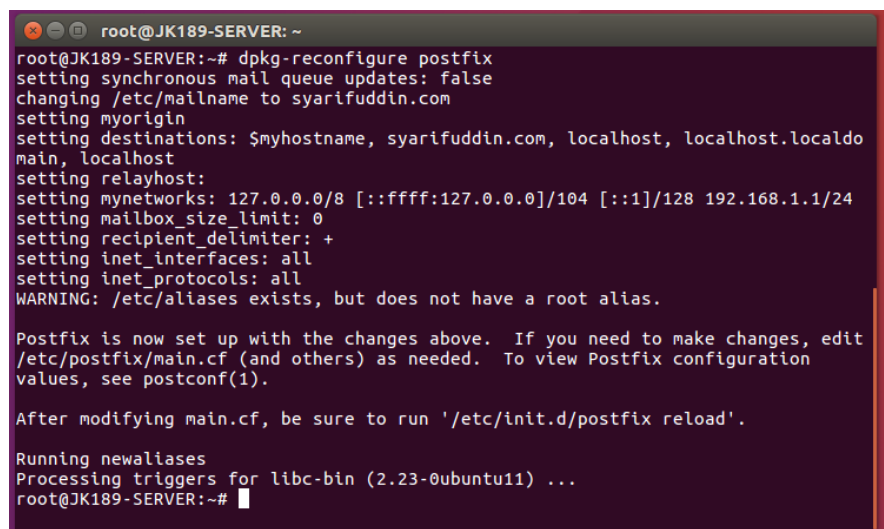
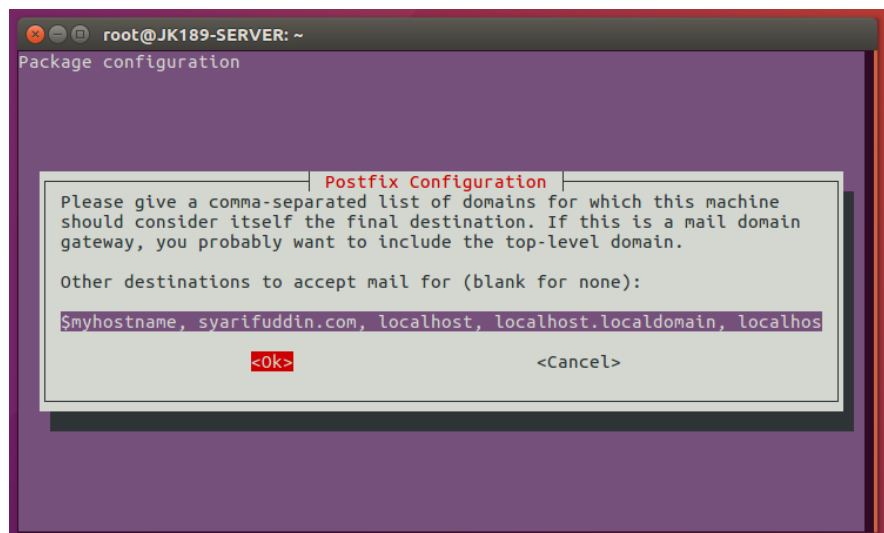
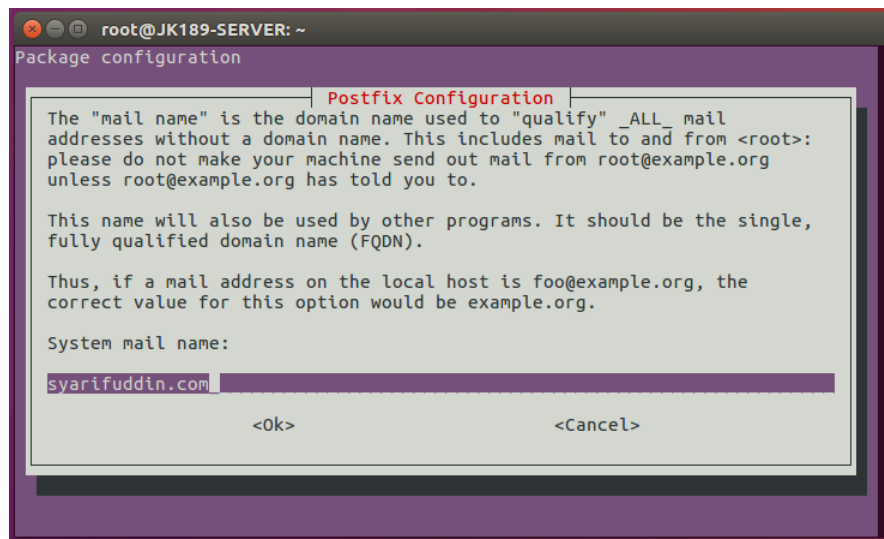
Postfix Configuration

General type of mail configuration:

No configuration
Internet Site
Internet with smarthost
Satellite system
Local only

<Ok>      <Cancel>
```

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```
root@JK189-SERVER: ~
root@JK189-SERVER:~# /etc/init.d/postfix start
[ ok ] Starting postfix (via systemctl): postfix.service.
root@JK189-SERVER:~# /etc/init.d/postfix reload
[ ok ] Reloading postfix configuration (via systemctl): postfix.service.
root@JK189-SERVER:~#
```

5. Install **dovecot** dengan perintah:

apt-get install dovecot-imapd dovecot-pop3d

```
root@JK189-SERVER: ~
root@JK189-SERVER:~# apt install dovecot-imapd dovecot-pop3d
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  dovecot-core ntpdate
Suggested packages:
  ntp dovecot-gssapi dovecot-sieve dovecot-pgsql dovecot-mysql dovecot-sqlite
  dovecot-ldap dovecot-lmtpd dovecot-managesieved dovecot-solr
The following NEW packages will be installed:
  dovecot-core dovecot-imapd dovecot-pop3d ntpdate
0 upgraded, 4 newly installed, 0 to remove and 142 not upgraded.
Need to get 2.642 kB of archives.
After this operation, 8.426 kB of additional disk space will be used.
Do you want to continue? [Y/n]
```

6. Konfigurasi dovecot dengan perintah:

nano /etc/dovecot/conf.d/10-mail.conf

```
root@JK189-SERVER: ~
root@JK189-SERVER:~# nano /etc/dovecot/conf.d/10-mail.conf
```

Tambahkan kata yang diblok seperti dibawah ini

```
GNU nano 2.5.3 File: /etc/dovecot/conf.d/10-mail.conf Modified

#
# See doc/wiki/Variables.txt for full list. Some examples:
#
# mail_location = maildir:~/Maildir
# mail_location = mbox:~/mail:INBOX=/var/mail/%u
# mail_location = mbox:/var/mail/%d/%n:INDEX=/var/indexes/%d/%n/%n
#
# <doc/wiki/MailLocation.txt>
#
#mail location = mbox:~/mail:INBOX=/var/mail/%u
mail location = maildir:~/Maildir

# If you need to set multiple mailbox locations or want to change default
# namespace settings, you can do it by defining namespace sections.
#
# You can have private, shared and public namespaces. Private namespaces
# are for user's personal mails. Shared namespaces are for accessing other
# users' mailboxes that have been shared. Public namespaces are for shared
# mailboxes that are managed by sysadmin. If you create any shared or public

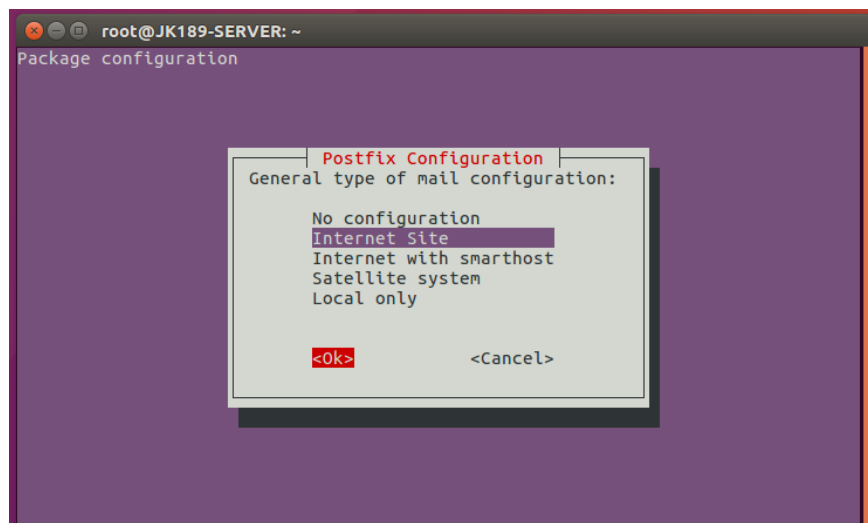
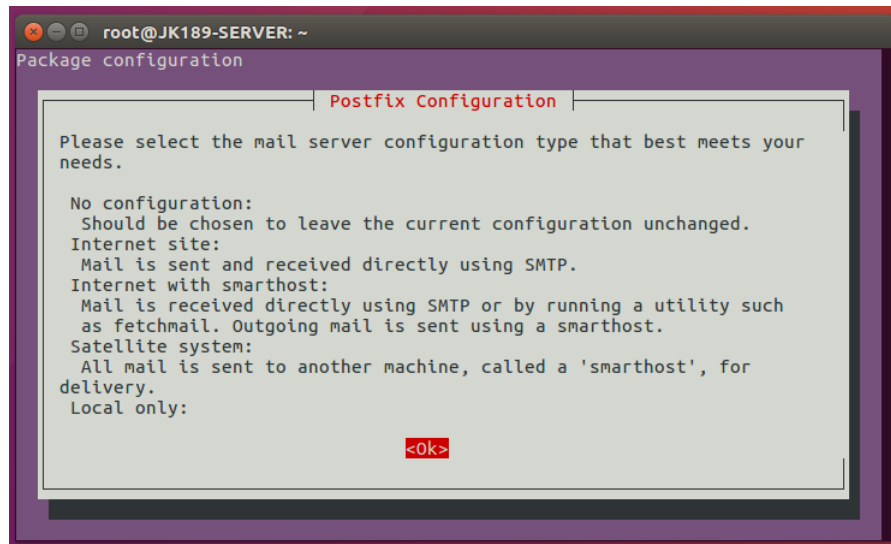
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

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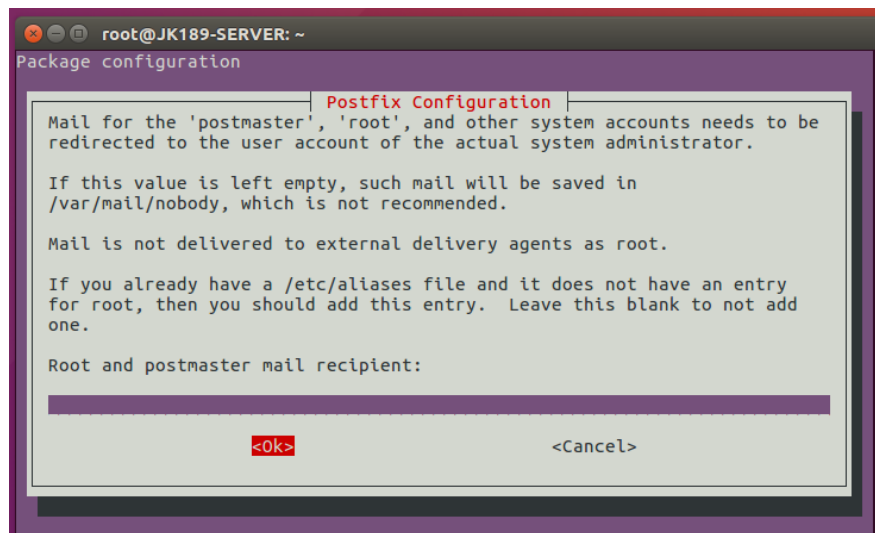
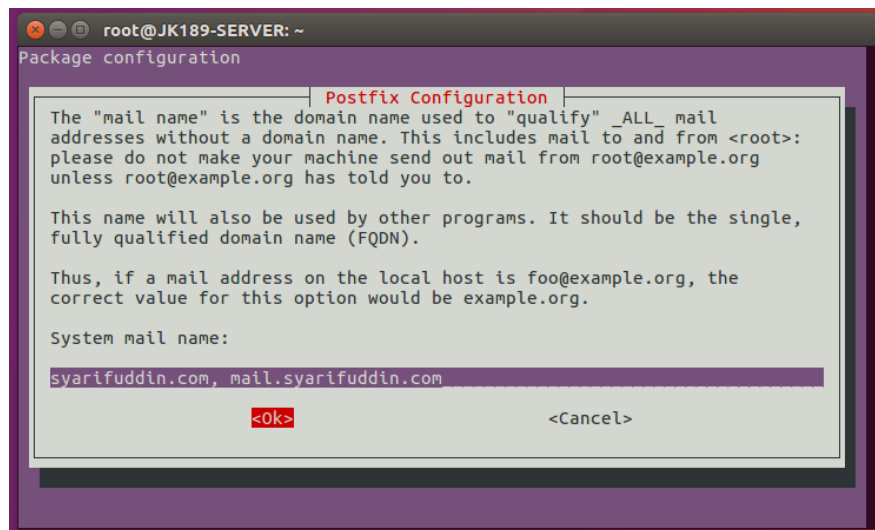
7. Konfigurasi postfix dengan perintah:

dpkg-reconfigure postfix

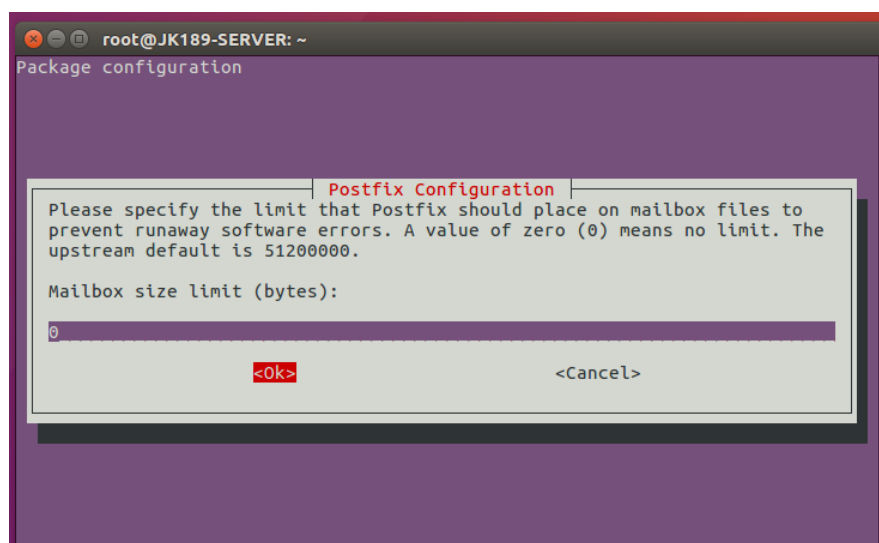
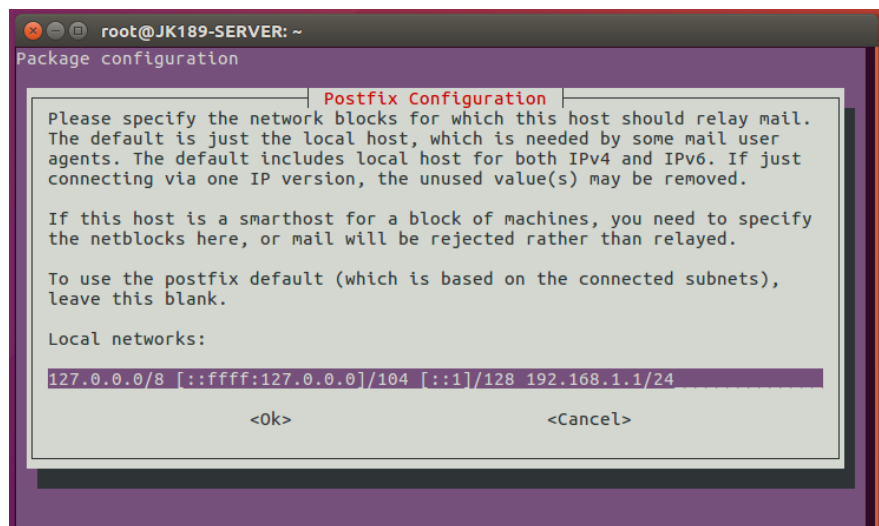
```
root@JK189-SERVER: ~  
root@JK189-SERVER:~# dpkg-reconfigure postfix
```



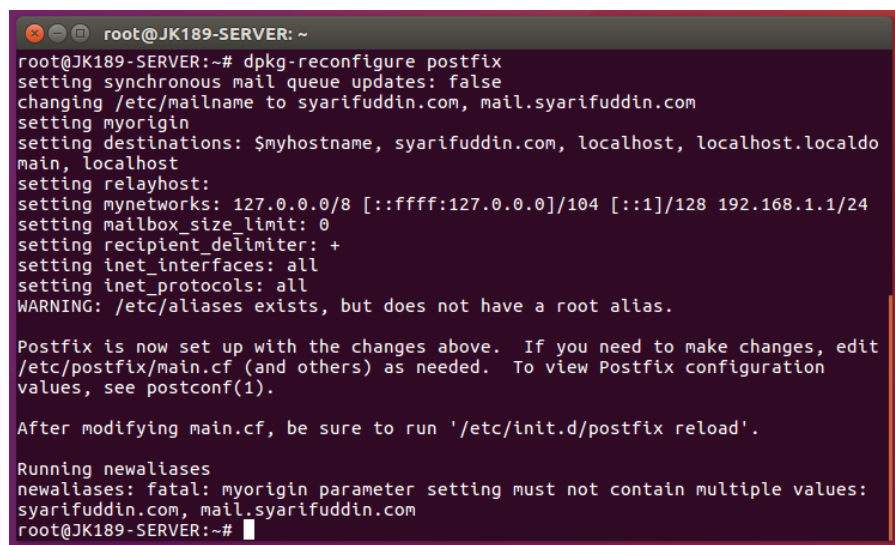
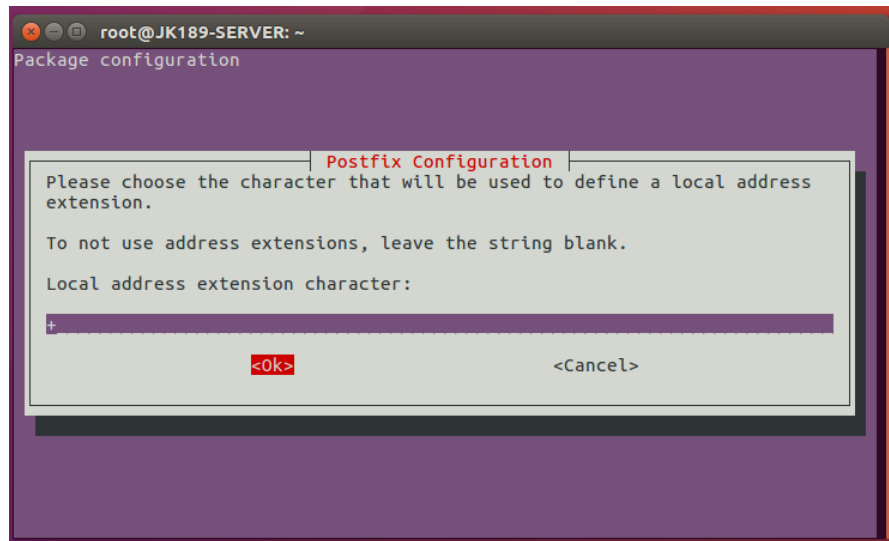
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```
root@JK189-SERVER: ~
root@JK189-SERVER:~# /etc/init.d/postfix start
[ ok ] Starting postfix (via systemctl): postfix.service.
root@JK189-SERVER:~# /etc/init.d/postfix reload
[ ok ] Reloading postfix configuration (via systemctl): postfix.service.
root@JK189-SERVER:~#
```

8. Set mailbox pada file “main.cf” dengan perintah:

nano /etc/postfix/main.cf

```
root@JK189-SERVER: ~
GNU nano 2.5.3 File: /etc/postfix/main.cf

myhostname = JK189-SERVER
alias_maps = hash:/etc/aliases
alias_database = hash:/etc/aliases
myorigin = /etc/mailname
mydestination = $myhostname, syarifuddin.com, localhost, localhost.localdomain,$
relayhost =
mynetworks = 127.0.0.0/8 [::ffff:127.0.0.0]/104 [::1]/128 192.168.1.1/24
mailbox_size_limit = 0
recipient_delimiter = +
inet_interfaces = all
inet_protocols = all
home_mailbox = Maildir/

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^L Replace ^U Uncut Text ^T To Spell ^_ Go To Line
```

9. Restart service postfix dan dovecot dengan perintah:

/etc/init.d/postfix restart

/etc/init.d/dovecot restart

```
root@JK189-SERVER: ~
root@JK189-SERVER:~# nano /etc/postfix/main.cf
root@JK189-SERVER:~# /etc/init.d/postfix restart
[ ok ] Restarting postfix (via systemctl): postfix.service.
root@JK189-SERVER:~# /etc/init.d/dovecot
Usage: /etc/init.d/dovecot {start|stop|restart|force-reload|status}
root@JK189-SERVER:~# /etc/init.d/dovecot restart
[ ok ] Restarting dovecot (via systemctl): dovecot.service.
root@JK189-SERVER:~#
```

10. Install squirrelmail dengan perintah:

apt-get install squirrelmail

```
root@JK189-SERVER: ~
root@JK189-SERVER:~# apt install squirrelmail
Reading package lists... Done
Building dependency tree
Reading state information... Done
```

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11. Konfigurasi squirrelmail dengan perintah:

squirrelmail-configure

```
root@JK189-SERVER: ~  
root@JK189-SERVER:~# squirrelmail-configure
```

```
root@JK189-SERVER: ~  
SquirrelMail Configuration : Read: config.php (1.4.0)  
-----  
Main Menu --  
1. Organization Preferences  
2. Server Settings  
3. Folder Defaults  
4. General Options  
5. Themes  
6. Address Books  
7. Message of the Day (MOTD)  
8. Plugins  
9. Database  
10. Languages  
  
D. Set pre-defined settings for specific IMAP servers  
  
C Turn color on  
S Save data  
Q Quit  
  
Command >> D
```

```
root@JK189-SERVER: ~  
cyrus      = Cyrus IMAP server  
dovecot    = Dovecot Secure IMAP server  
exchange   = Microsoft Exchange IMAP server  
hmailserver = hMailServer  
macosx     = Mac OS X Mailserver  
mercury32  = Mercury/32  
uw         = University of Washington's IMAP server  
gmail      = IMAP access to Google mail (Gmail) accounts  
  
quit       = Do not change anything  
Command >> courier  
  
imap_server_type = courier  
default_folder_prefix = INBOX.  
trash_folder = Trash  
sent_folder = Sent  
draft_folder = Drafts  
show_prefix_option = false  
default_sub_of_inbox = true  
show_contain_subfolders_option = false  
optional_delimiter = .  
delete_folder = true  
  
Press enter to continue...
```

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```
root@JK189-SERVER: ~
SquirrelMail Configuration : Read: config.php (1.4.0)
-----
Main Menu --
1. Organization Preferences
2. Server Settings
3. Folder Defaults
4. General Options
5. Themes
6. Address Books
7. Message of the Day (MOTD)
8. Plugins
9. Database
10. Languages

D. Set pre-defined settings for specific IMAP servers

C Turn color on
S Save data
Q Quit

Command >> S

Data saved in config.php
Press enter to continue...

root@JK189-SERVER: ~
SquirrelMail Configuration : Read: config.php (1.4.0)
-----
Main Menu --
1. Organization Preferences
2. Server Settings
3. Folder Defaults
4. General Options
5. Themes
6. Address Books
7. Message of the Day (MOTD)
8. Plugins
9. Database
10. Languages

D. Set pre-defined settings for specific IMAP servers

C Turn color on
S Save data
Q Quit

Command >> Q
```

12. Buat vhost pada nginx untuk squirrelmail dengan perintah:

nano /etc/nginx/sites-available/mail

```
GNU nano 2.5.3 File: /etc/nginx/sites-available/mail

server{
    listen 80;
    server_name mail.syarifuddin.com;
    root /usr/share/squirrelmail;
    index index.php index.html;
    location ~ /\.ht {
        deny all;
        access_log off;
        log_not_found off;
    }
    location ~ /\.php$ {
        include snippets/fastcgi-php.conf;
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        fastcgi_pass 127.0.0.1:9000;
    }
    location /squirrelmail {
        root /usr/share;
        index index.php index.html index.htm;
        location ~ ^/squirrelmail/(.+\.php)$ {
            try_files $uri $uri/ = 404;
            root /usr/share;
            fastcgi_pass 127.0.0.1:9000;
            fastcgi_index index.php;
            include /etc/nginx/fastcgi_params;
        }
    }
    location /webmail {
        rewrite ^/* /squirrelmail last;
    }
}
```

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13. Aktifkan vhost mail dengan perintah:

```
# ln -ls /etc/nginx/sites-available/mail /etc/nginx/sites-enabled/mail
```

```
root@JK189-SERVER: ~
root@JK189-SERVER:~# ln -s /etc/nginx/sites-available/mail /etc/nginx/sites-enabled/mail
root@JK189-SERVER:~# ls /etc/nginx/sites-enabled/
default mail
root@JK189-SERVER:~#
```

14. Reload service nginx dengan perintah:

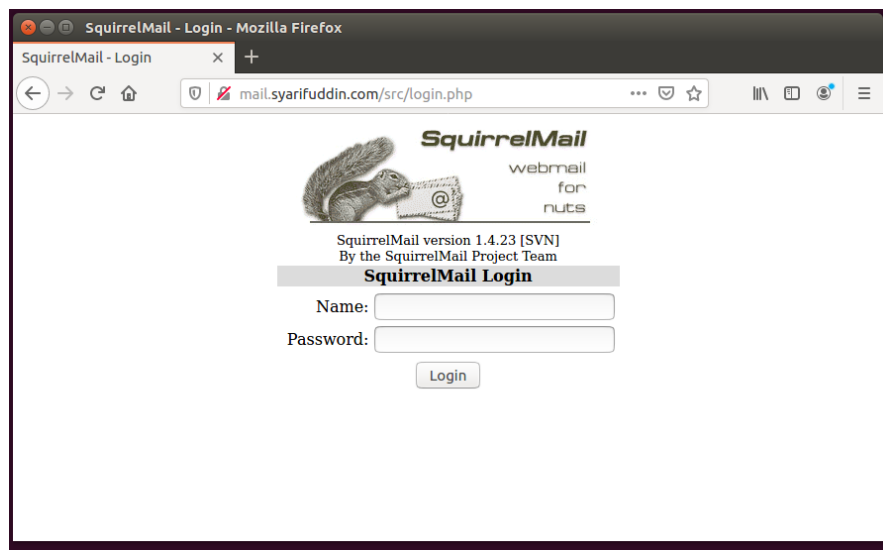
```
# service nginx reload
```

Atau

```
# /etc/init.d/nginx reload
```

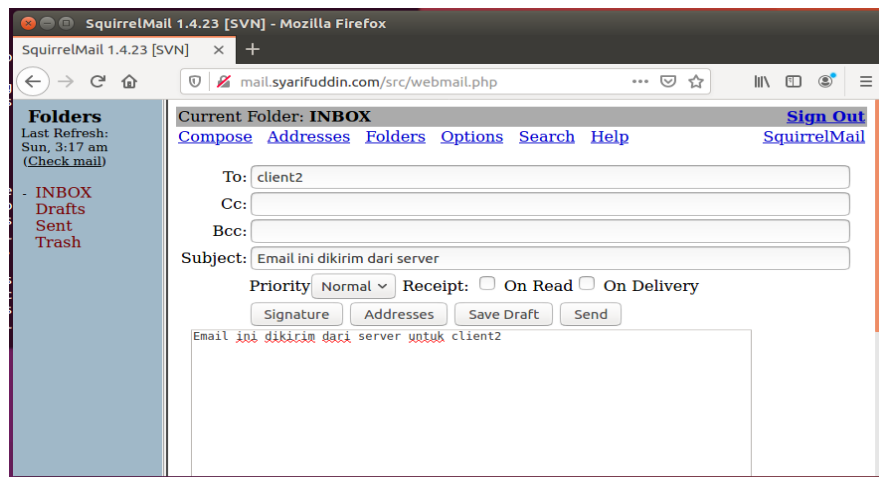
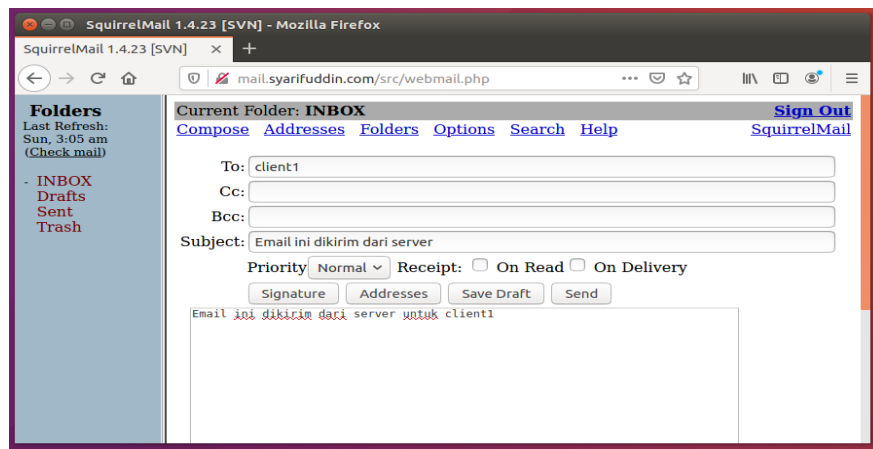
```
root@JK189-SERVER: ~
root@JK189-SERVER:~# /etc/init.d/nginx reload
[ ok ] Reloading nginx configuration (via systemctl): nginx.service.
root@JK189-SERVER:~#
```

15. Buka browser dan ketikkan url http://mail.nama_panggilan.com



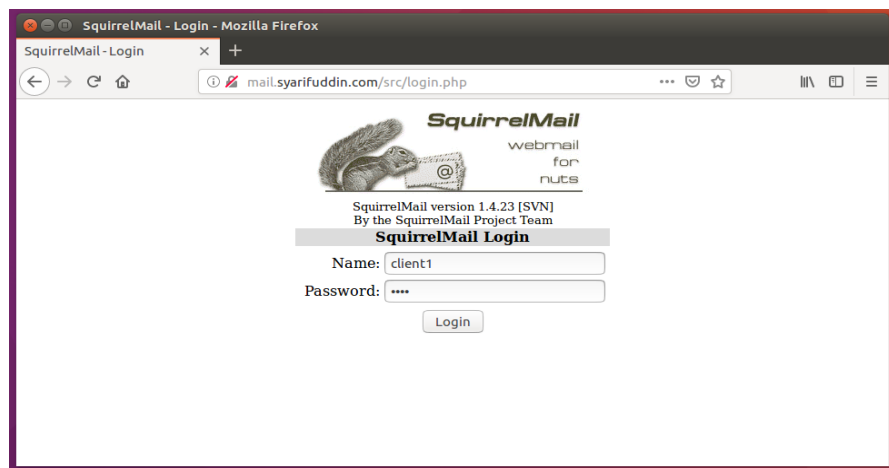
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16. Login kemudian Kirimkan message ke client1 & client2

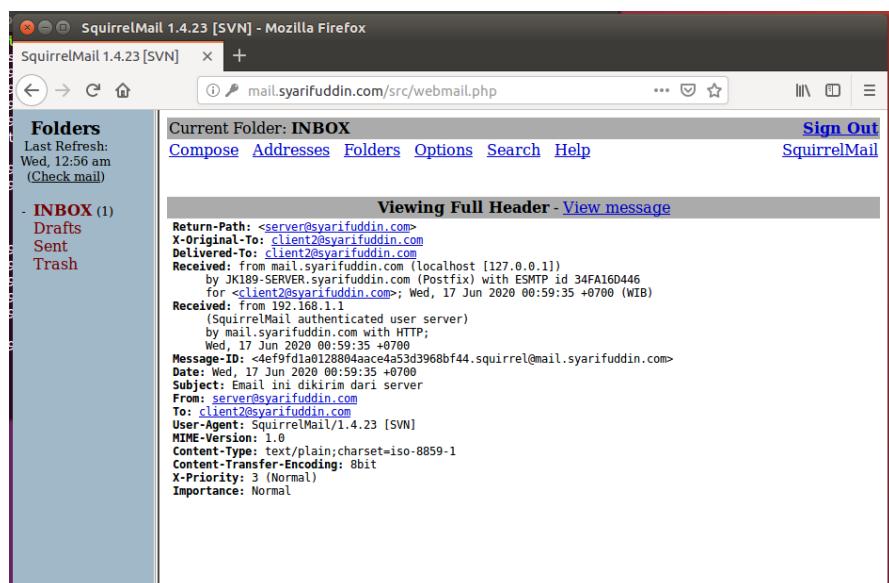
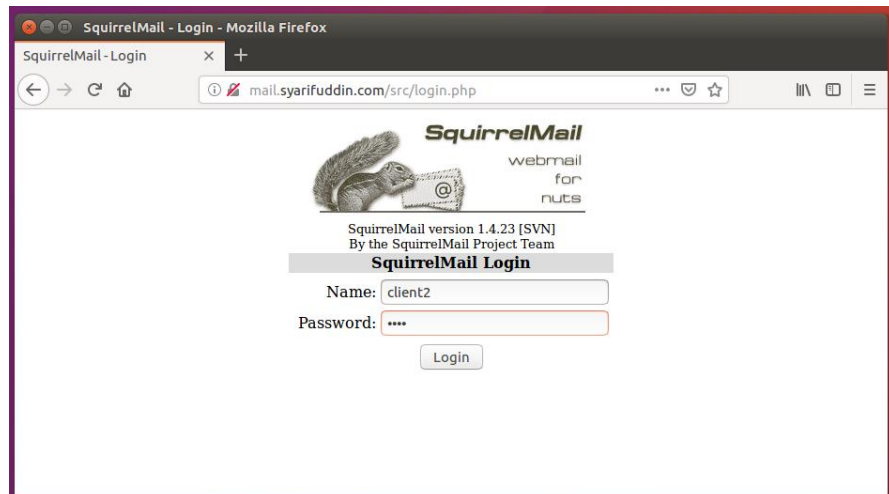
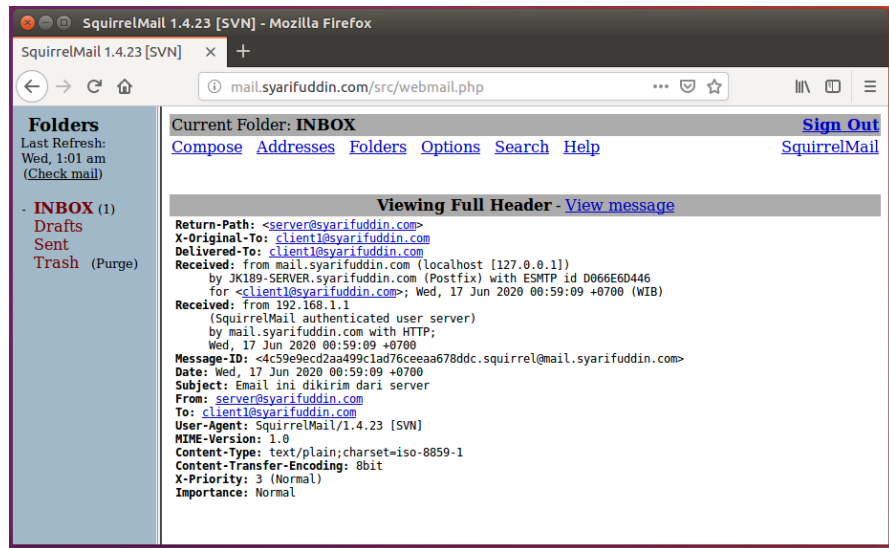


17. Masuk ke client1 & client2 dan buka browser ketikkan

http://mail.nama_panggilan.com , kemudian periksa email yang telah dikirim oleh server ke client1 & client2

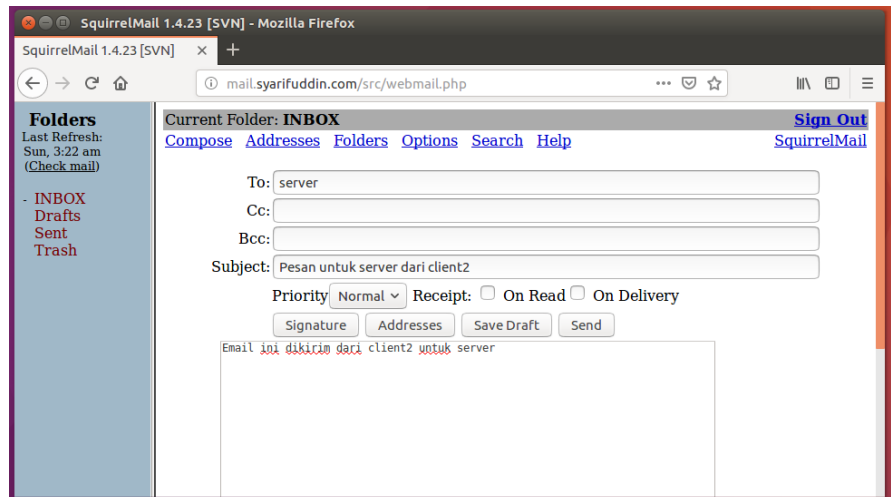
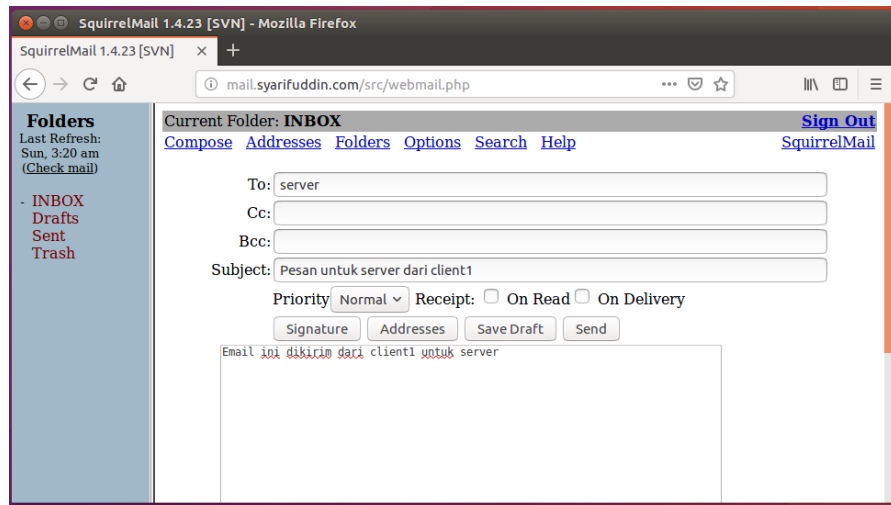


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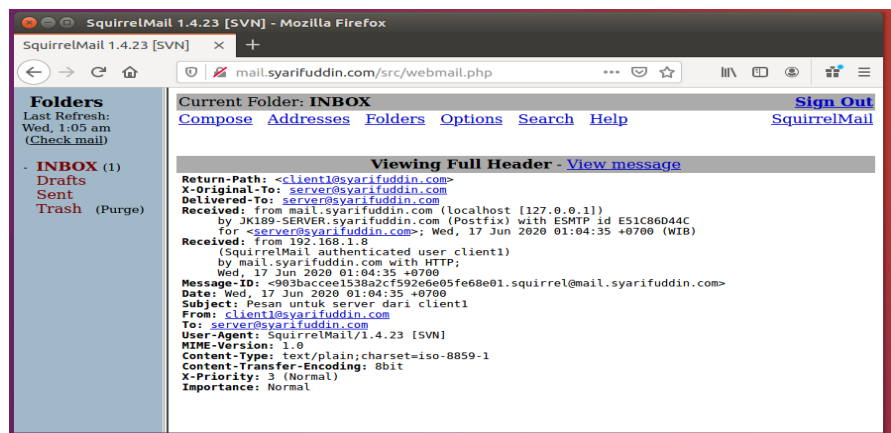


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18. Kemudian coba kirimkan email dari client1 & client 2 ke server



19. Kemudian buka email yang dikirim client1 & client2



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