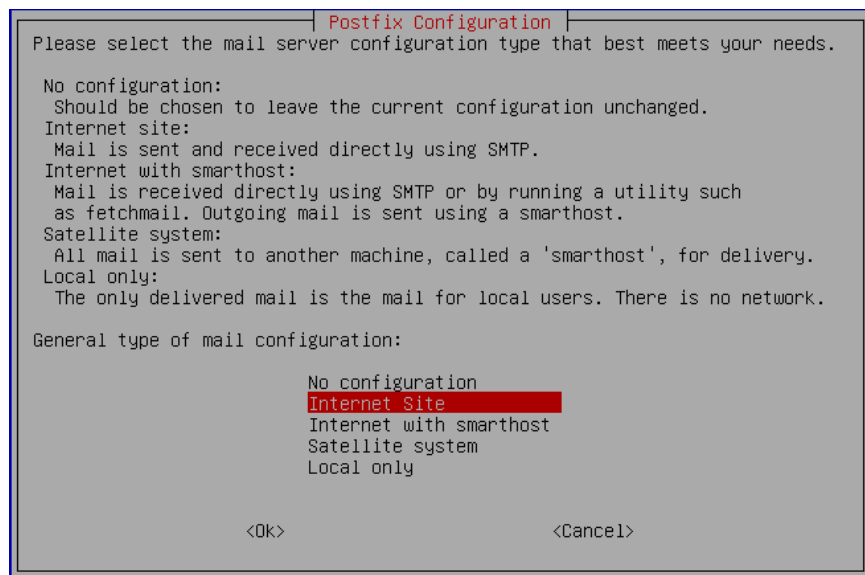
	LKPD (Lembar Kerja Peserta Didik)	
	PROGRAM KEAHLIAN	TEKNIK JARINGAN KOMPUTER & TELEKOMUNIKASI
	MATA PELAJARAN	ASJ
	DOMAIN	Konfigurasi Mail & Web Mail Server
oa		
KELAS	XI -TKJ 1	
NO PRESENSI & NAMA	15. Intan Dwi Anggreini	
URAIAN	<p>➤ Konfigurasi Mail & Web Mail Server:</p> <p>1) Buat subdomain untuk web mail server.</p> <pre> GNU nano 3.2 db.10 ; ; BIND reverse data file for local loopback interface ; \$TTL 604800 @ IN SOA smeksa.com. root.smeksa.com. (1 ; Serial 604800 ; Refresh 86400 ; Retry 2419200 ; Expire 604800) ; Negative Cache TTL ; @ IN NS smeksa.com. 1 IN PTR smeksa.com. 1 IN PTR www.smeksa.com. 1 IN PTR mail.smeksa.com. 1 IN PTR info.smeksa.com. 1 IN PTR docs.smeksa.com. 1 IN PTR toxic.smeksa.com. 1 IN PTR friendzone.smeksa.com. </pre> <pre> root@smkn1kediri:/etc/bind# /etc/init.d/bind9 restart [OK] Restarting bind9 (via systemctl): bind9.service. root@smkn1kediri:/etc/bind# _ </pre> <p>Lakukan pengecekan apakah subdomain untuk web mail server telah berhasil dikonfigurasi.</p> <pre> root@smkn1kediri:/etc/bind# nslookup 10.10.15.1 1.15.10.10.in-addr.arpa name = docs.smeksa.com. 1.15.10.10.in-addr.arpa name = friendzone.smeksa.com. 1.15.10.10.in-addr.arpa name = mail.smeksa.com. 1.15.10.10.in-addr.arpa name = smeksa.com. 1.15.10.10.in-addr.arpa name = www.smeksa.com. 1.15.10.10.in-addr.arpa name = toxic.smeksa.com. 1.15.10.10.in-addr.arpa name = info.smeksa.com. </pre>	

- 2) Kemudian install postfix, IMAP, dan POP dengan mengetikkan perintah **apt-get install postfix dovecot-imapd dovecot-pop3d**. Jika ada pertanyaan “y/n” ketik “y” kemudian klik enter.

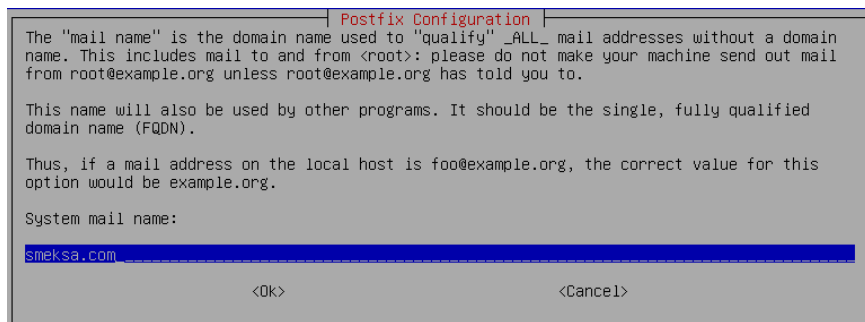
```
root@smknikediri:/# apt install postfix dovecot-imapd dovecot-pop3d
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  dovecot-core libexttextcat-2.0-0 libexttextcat-data liblua5.3-0 libstemmer0d
Suggested packages:
  dovecot-gssapi dovecot-ldap dovecot-lmtpd dovecot-lucene dovecot-managesieved dovecot-mysql
  dovecot-pgsql dovecot-sieve dovecot-solr dovecot-sqlite dovecot-submissiond ntp ufw procmail
  postfix-mysql postfix-pgsql postfix-ldap postfix-pcre postfix-lmdb postfix-sqlite resolvconf
  postfix-cdb mail-reader postfix-doc
The following NEW packages will be installed:
  dovecot-core dovecot-imapd dovecot-pop3d libexttextcat-2.0-0 libexttextcat-data liblua5.3-0
  libstemmer0d postfix
0 upgraded, 8 newly installed, 0 to remove and 0 not upgraded.
Need to get 0 B/8,025 kB of archives.
After this operation, 19.3 MB of additional disk space will be used.
Do you want to continue? [Y/n] y_
```

Ketika proses instalasi dan masuk halaman postfix configuration lakukan penginputan seperti dibawah ini :

- a) General type of mail config, pilih Internet Site.



- b) Lalu pada laman System mail name, masukan alamat domain server “smeksa.com”.



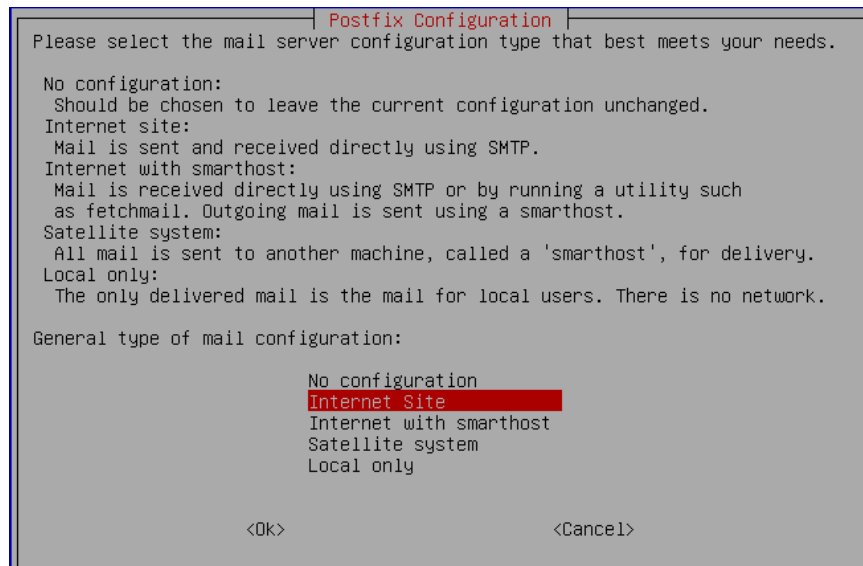
Setelah selesai menginstal samba, lakukan pengecekan instalasi dengan mengetik kembali **apt-get install postfix dovecot-imapd dovecot-pop3d**.

Instalasi postfix, IMAP dan POP sudah berhasil jika muncul tulisan **0 upgrade, 0 newly installed, 0 to remove and 0 not upgrade.**

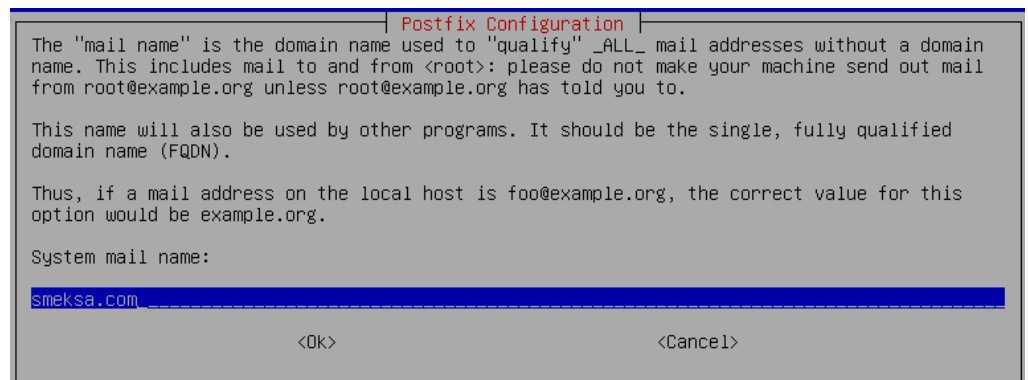
- 3) Masuk postfix configuration dengan memasukkan perintah **“dpkg-reconfigure postfix”**, lalu klik OK. Postfix configuration :

```
root@smkn1kediri:/# dpkg-reconfigure postfix
```

- a) General type of mail config, pilih Internet Site.



- b) Lalu pada laman System mail name, pada box input masukan alamat domain server **“smeksa.com”**.



- c) Pada halaman Root and postmaster mail recipient, box inputan tetap **biarkan kosong** lalu klik **OK** lanjut.

Postfix Configuration

Mail for the 'postmaster', 'root', and other system accounts needs to be redirected to the user account of the actual system administrator.

If this value is left empty, such mail will be saved in /var/mail/nobody, which is not recommended.

Mail is not delivered to external delivery agents as root.

If you already have a /etc/aliases file and it does not have an entry for root, then you should add this entry. Leave this blank to not add one.

Root and postmaster mail recipient:

<Ok> <Cancel>

- d) Pada box inputan halaman **“Other destinations to accept mail for (blank for none):”** masukkan *“smkn1kediri, smeksa.com, smkn1kediri, localhost.com, localhost”*.

Postfix Configuration

Please give a comma-separated list of domains for which this machine should consider itself the final destination. If this is a mail domain gateway, you probably want to include the top-level domain.

Other destinations to accept mail for (blank for none):

smkn1kediri, smeksa.com, smkn1kediri, localhost.localdomain, localhost _____

<Ok> <Cancel>

- e) Force synchronous updates on mail queue, klik **No**.

Postfix Configuration

If synchronous updates are forced, then mail is processed more slowly. If not forced, then there is a remote chance of losing some mail if the system crashes at an inopportune time, and you are not using a journaled filesystem (such as ext3).

Force synchronous updates on mail queue?

<Yes> **<No>**

- f) Pada box inputan Local network, tambahkan **“10.10.15.0/0”** pada akhir text dengan spasi sebagai pemisah nya.

Postfix Configuration

Please specify the network blocks for which this host should relay mail. The default is just the local host, which is needed by some mail user agents. The default includes local host for both IPv4 and IPv6. If just connecting via one IP version, the unused value(s) may be removed.

If this host is a smarthost for a block of machines, you need to specify the netblocks here, or mail will be rejected rather than relayed.

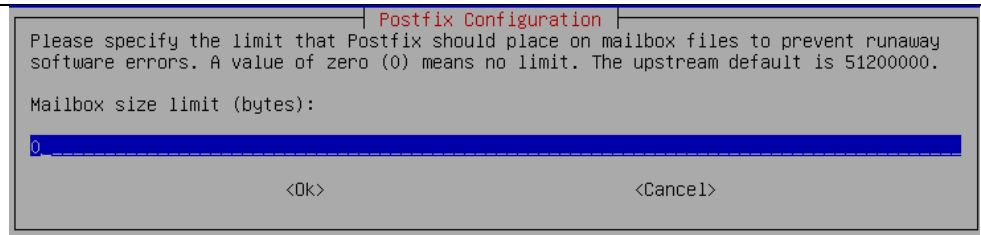
To use the postfix default (which is based on the connected subnets), leave this blank.

Local networks:

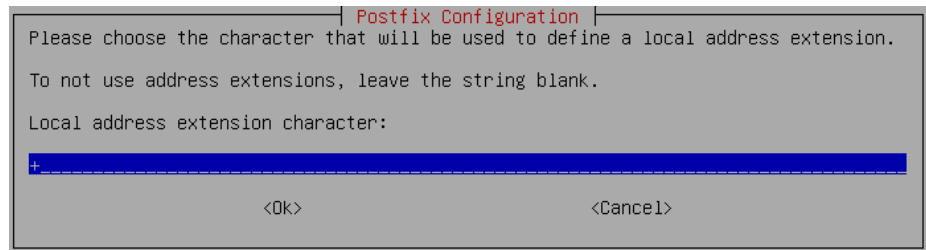
127.0.0.0/8 [::ffff:127.0.0.0]/104 [::1]/128 **10.10.15.0/0** _____

<Ok> <Cancel>

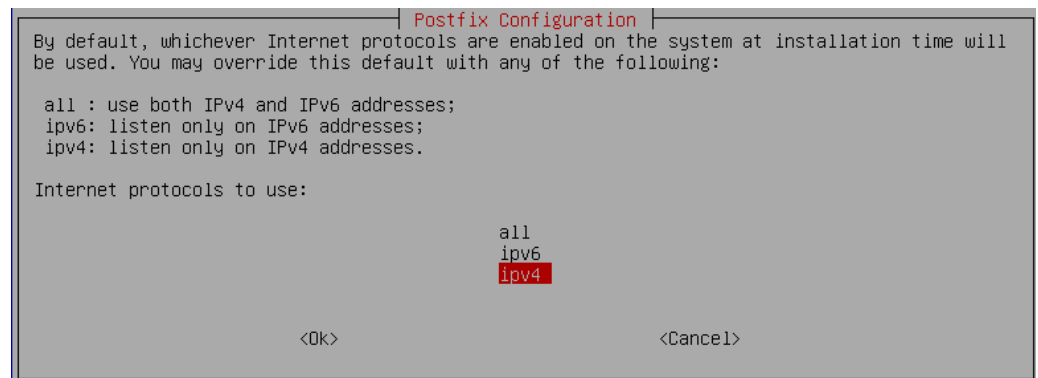
- g) Pada halaman **“Mailbox size limit (bytes):”**, biarkan box inputan tetap terisi **“0”**.



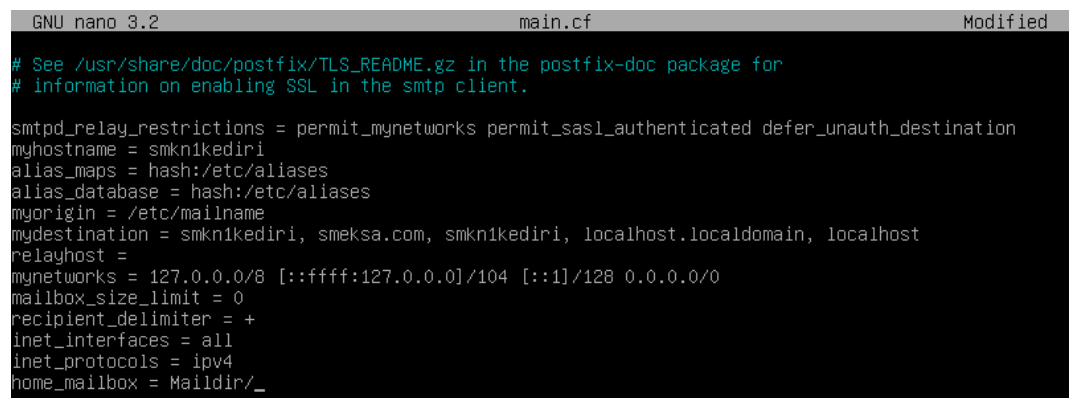
- h) Pada halaman **“Local address extension character :”**, tetap biarkan box inputan berisi **“+”**.



- i) Pada halaman **“Internet protocol to use:”**, pilih opsi **ipv4**.



- 4) Lakukan konfigurasi file **main.cf** yang terdapat pada direktori **“/etc/postfix”**, pada line kosong yang terletak paling bawah tambahkan line **“home_mailbox = Maildir/”**.



- 5) Lakukan konfigurasi file **dovecot.conf** yang terdapat pada direktori **"/etc/dovecot"**, hapus tanda pagar pada line **"#listen = *, ::"**

```
GNU nano 3.2 dovecot.conf Modified
# those. These are exceptions to this though: No sections (e.g. namespace {})
# or plugin settings are added by default, they're listed only as examples.
# Paths are also just examples with the real defaults being based on configure
# options. The paths listed here are for configure --prefix=/usr
# --sysconfdir=/etc --localstatedir=/var

# Enable installed protocols
!include_try /usr/share/dovecot/protocols.d/*.protocol

# A comma separated list of IPs or hosts where to listen in for connections.
# "*" listens in all IPv4 interfaces, "::" listens in all IPv6 interfaces.
# If you want to specify non-default ports or anything more complex,
# edit conf.d/master.conf.
listen = *, ::

# Pass directory where to store runtime data
```

- 6) Selanjutnya konfigurasi file **10-auth.conf** dan **10-mail.conf**,

- Edit 10-auth.conf dengan hilangkan pagar pada line **"#disable_plaintext_auth=yes"** lalu merubah yes menjadi no, **"disable_plaintext_auth=no"**.

```
GNU nano 3.2 /etc/dovecot/conf.d/10-auth.conf Modified
##
## Authentication processes
##

# Disable LOGIN command and all other plaintext authentications unless
# SSL/TLS is used (LOGINDISABLED capability). Note that if the remote IP
# matches the local IP (ie. you're connecting from the same computer), the
# connection is considered secure and plaintext authentication is allowed.
# See also ssl=required setting.
disable_plaintext_auth = no
```

- Edit 10-mail.conf :
 - a) Hilangkan tanda pagar pada line **"mail_location = maildir:~/Maildir"**.
 - b) Tambahkan pagar pada line **"mail_location = mbox:~/mail:INBOX....."**.

```
GNU nano 3.2 /etc/dovecot/conf.d/10-mail.conf Modified
# %u - username
# %n - user part in user@domain, same as %u if there's no domain
# %d - domain part in user@domain, empty if there's no domain
# %h - home directory
#
# 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

# If you need to set multiple mailbox locations or want to change default
# namespace settings, you can do it by defining namespace sections.
```

- 7) Membuat 2 user untuk menerima dan mengirim pesan mail.

```

root@smkn1kediri:/# adduser mr_mail
Adding user `mr_mail' ...
Adding new group `mr_mail' (1001) ...
Adding new user `mr_mail' (1001) with group `mr_mail' ...
Creating home directory `/home/mr_mail' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for mr_mail
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
root@smkn1kediri:/# adduser mrs_mail
Adding user `mrs_mail' ...
Adding new group `mrs_mail' (1002) ...
Adding new user `mrs_mail' (1002) with group `mrs_mail' ...
Creating home directory `/home/mrs_mail' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for mrs_mail
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
root@smkn1kediri:/# _

```

- 8) Buat direktori Maildir di dalam direktori “/etc/skel”. Ketik perintah **maildirmake.dovecot /etc/skel/Maildir**.

```

root@smkn1kediri:/# maildirmake.dovecot /etc/skel/Maildir
root@smkn1kediri:/#

```

- 9) Restart pada postfix dan dovecot.

```

root@smkn1kediri:/# /etc/init.d/postfix restart
[ ok ] Restarting postfix (via systemctl): postfix.service.
root@smkn1kediri:/# /etc/init.d/dovecot restart
[ ok ] Restarting dovecot (via systemctl): dovecot.service.
root@smkn1kediri:/# _

```

- 10) Lakukan **pengiriman email** tanpa melalui web mail (didalam CLI server) dengan **telnet localhost 25** dan langkah-langkah seperti dibawah ini:

```

root@smkn1kediri:/# telnet localhost 25
Trying ::1...
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
220 smkn1kediri ESMTP Postfix (Debian/GNU)
mail from: mr_mail
250 2.1.0 Ok
rcpt to: mrs_mail
250 2.1.5 Ok
data
354 End data with <CR><LF>.<CR><LF>
Hai....Kamu apa kabar?
Maaf cuman uji coba mail server
dimohon untuk tidak baper.
.
250 2.0.0 Ok: queued as 0D1222E366
quit
221 2.0.0 Bye
Connection closed by foreign host.
root@smkn1kediri:/# _

```

11) Lakukan pengecekan email yang diterima tanpa melaluid telnet localhost 110 dan langkah-langkah seperti dibawah ini:

```

root@smkn1kediri:/# telnet localhost 110
Trying ::1...
Connected to localhost.
Escape character is '^]'.
+OK Dovecot (Debian) ready.
user mrs_mail
+OK
pass 12345
+OK Logged in.
stat
+OK 2 882
retr 2
+OK 463 octets
Return-Path: <mr_mail@smeksa.com>
X-Original-To: mrs_mail
Delivered-To: mrs_mail@smeksa.com
Received: from localhost (localhost [127.0.0.1])
        by smkn1kediri (Postfix) with SMTP id 0D1222E366
        for <mrs_mail>; Fri, 16 Dec 2022 20:01:54 +0700 (WIB)
Message-Id: <20221216130203.0D1222E366@smkn1kediri>
Date: Fri, 16 Dec 2022 20:01:54 +0700 (WIB)
From: mr_mail@smeksa.com

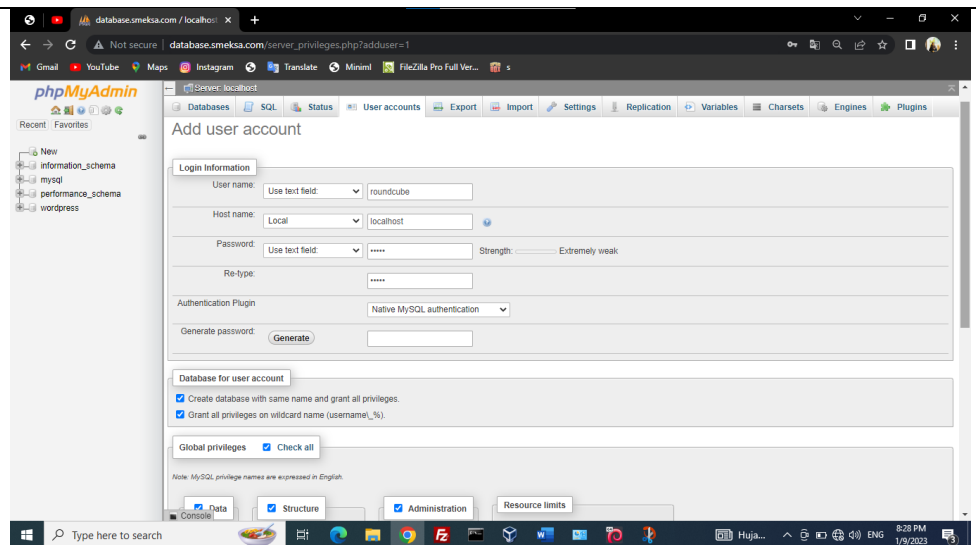
Hai....Kamu apa kabar?
Maaf cuman uji coba mail server
dimohon untuk tidak baper.
.
quit
+OK Logging out.
Connection closed by foreign host.
root@smkn1kediri:/#

```

12) Membuat user roundcube di situs web **database.smeksa.com**

a) Buat user di tab user account:

- Nama user harus sama "roundcube".
- Hostname, localhost.
- Masukkan password.
- Centang semua opsi pada database for user account.
- Centang check all pada global privileges.

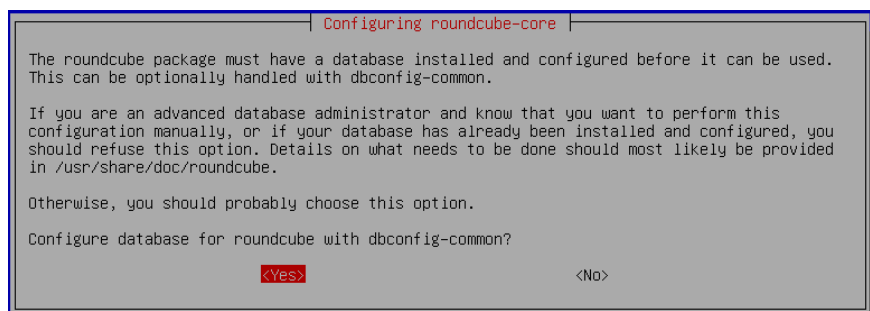


13) Install roundcube

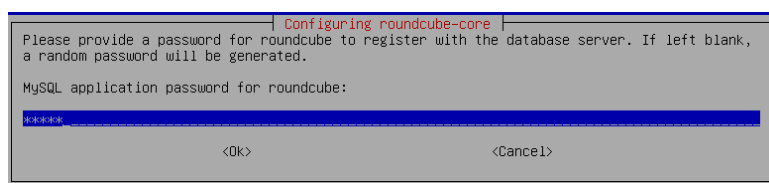
```
root@smknikediri:/# apt install roundcube
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  aspell aspell-en dbconfig-common libaspell15 php-auth-sasl php-intl php-mail-mime php-net-sieve
  php-net-smtp php-net-socket php-pear php-pspell php7.3-intl php7.3-pspell roundcube-core
  roundcube-mysql
Suggested packages:
  aspell-doc spellutils dbconfig-mysql | dbconfig-pgsql | dbconfig-sqlite | dbconfig-sqlite3
  | dbconfig-no-thanks roundcube-plugins php-net-ldap2 php-crypt-gpg php-net-ldap3
The following NEW packages will be installed:
  aspell aspell-en dbconfig-common libaspell15 php-auth-sasl php-intl php-mail-mime php-net-sieve
  php-net-smtp php-net-socket php-pear php-pspell php7.3-intl php7.3-pspell roundcube
  roundcube-core roundcube-mysql
0 upgraded, 17 newly installed, 0 to remove and 0 not upgraded.
Need to get 0 B/4,072 kB of archives.
After this operation, 19.5 MB of additional disk space will be used.
Do you want to continue? [Y/n] y_
```

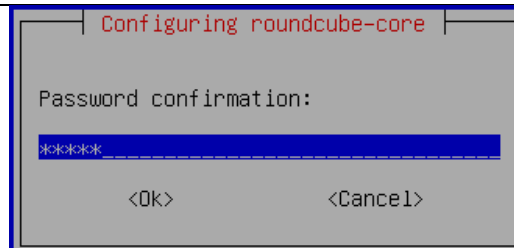
14) Ketika masuk configuring roundcube-core, masukkan input seperti dibawah ini:

- Configure database, yes



- Mysql application password for roundcube : 1-5 (password user roundcube)





- Intallasi roundcube selesai

15) Lakukan konfigurasi pada file config.inc.php pada direktori /etc/roundcube:

- ['default_host'] = 'smeksa.com(domain server)';
- ['smtp_server'] = 'smeksa.com(domain server)';
- Hapus %u dan %p namun jangan hilangkan ' ', pada :
 - a) ['smtp_user'] = '%u ';
 - b) ['smtp_pass'] = ' %p';

```
GNU nano 3.2 /etc/roundcube/config.inc.php Modified
// %s - domain name after the '@' from e-mail address provided at login screen
// For example %n = mail.domain.tld, %t = domain.tld
$config['default_host'] = 'smeksa.com';

// SMTP server host (for sending mails).
// Enter hostname with prefix tls:// to use STARTTLS, or use
// prefix ssl:// to use the deprecated SSL over SMTP (aka SMTPS)
// Supported replacement variables:
// %h - user's IMAP hostname
// %n - hostname ($_SERVER['SERVER_NAME'])
// %t - hostname without the first part
// %d - domain (http hostname $_SERVER['HTTP_HOST'] without the first part)
// %z - IMAP domain (IMAP hostname without the first part)
// For example %n = mail.domain.tld, %t = domain.tld
$config['smtp_server'] = 'smeksa.com';

// SMTP port (default is 25; use 587 for STARTTLS or 465 for the
// deprecated SSL over SMTP (aka SMTPS))
$config['smtp_port'] = 25;

// SMTP username (if required) if you use %u as the username Roundcube
// will use the current username for login
$config['smtp_user'] = '';

// SMTP password (if required) if you use %p as the password Roundcube
// will use the current user's password for login
$config['smtp_pass'] = '';

// provide an URL where a user can get support for this Roundcube installation
// PLEASE DO NOT LINK TO THE ROUNDcube.NET WEBSITE HERE!
$config['support_url'] = '';

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

16) Buat halaman web untuk mail server:

Pada direktori `"/etc/apache2/sites-available"`, copy file konfigurasi **000-default.conf** dengan nama **mail.conf**. Lalu lakukan konfigurasi pada file mail.conf :

- a) Ubah line *ServerName* www.example.com menjadi *ServerName mail.smeksa.com*.
- b) Ubah DocumentRoot `"/var/www/html"` menjadi `"/var/lib/roundcube".\`

```

GNU nano 3.2 /etc/apache2/sites-available/mail.conf

<VirtualHost *:80>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
ServerName mail.smeksa.com

ServerAdmin webmaster@localhost
DocumentRoot /var/lib/roundcube

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only
# after it has been globally disabled with "a2disconf".
#Include conf-available/serve-cgi-bin.conf
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

[ Wrote 31 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos M-U Undo
^X Exit ^R Read File ^N Replace ^U Uncut Text ^T To Spell ^_ Go To Line M-E Redo

```

- Lakukan enable pada file mail.conf.

```

root@smkn1kediri:/etc/apache2/sites-available# a2ensite mail.conf
Enabling site mail.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@smkn1kediri:/etc/apache2/sites-available#

```

17) Kemudian restart postfix, dovecot, dan apache2.

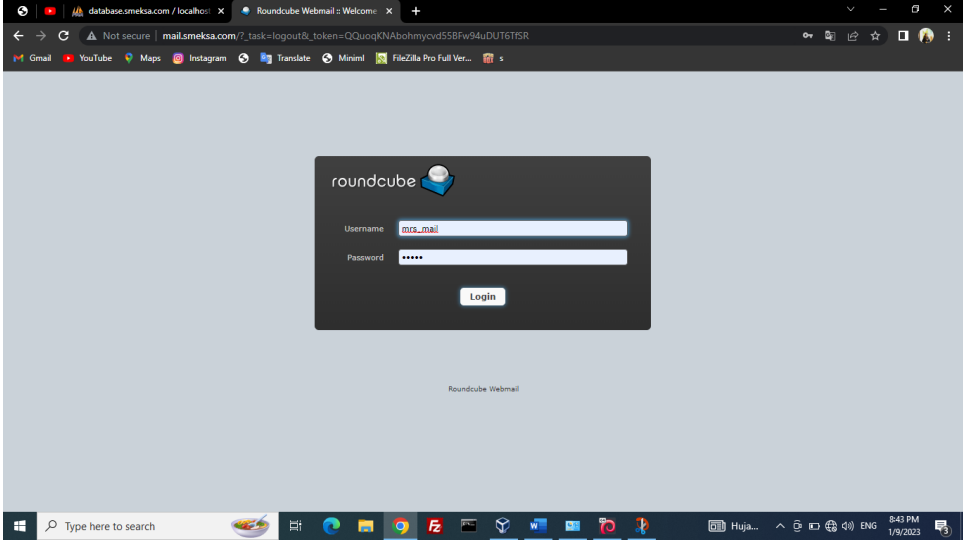
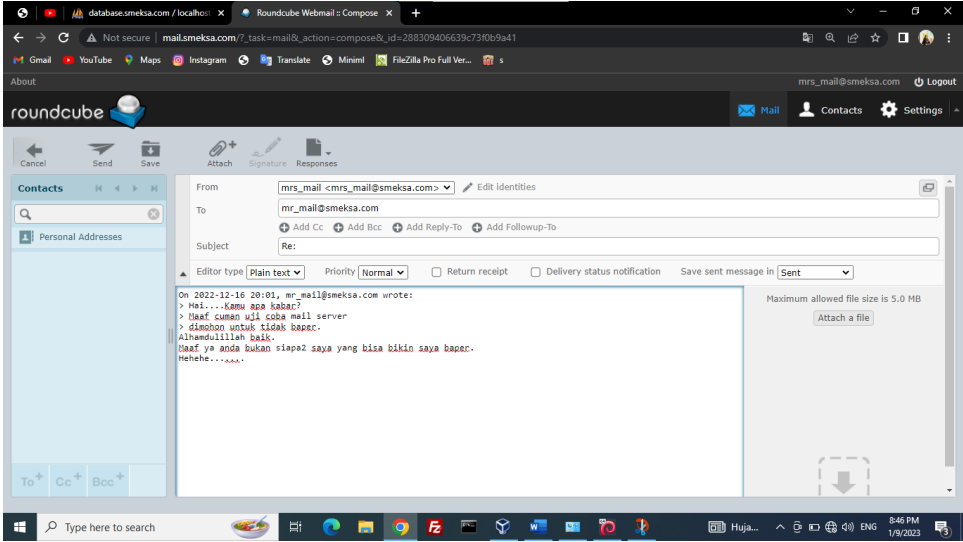
```

root@smkn1kediri:/# /etc/init.d/postfix restart
[ ok ] Restarting postfix (via systemctl): postfix.service.
root@smkn1kediri:/# /etc/init.d/dovecot restart
[ ok ] Restarting dovecot (via systemctl): dovecot.service.
root@smkn1kediri:/# /etc/init.d/apache2 restart
[ ok ] Restarting apache2 (via systemctl): apache2.service.
root@smkn1kediri:/# _

```

➤ Hasil Konfigurasi Mail & Web Mail Server:

- Check mail yang diterima tadi dan membalas pesan mail melalui web mail.

	 <p>The screenshot shows the Roundcube Webmail login interface. The browser address bar indicates the URL is mail.smeksa.com. The login form has fields for Username (filled with 'mrs_mail') and Password (masked with dots). A 'Login' button is at the bottom of the form. The Roundcube logo is at the top left of the form area.</p>  <p>The screenshot shows the Roundcube Webmail 'Compose' screen. The 'To' field is filled with 'mr_mail@smeksa.com'. The 'From' field shows 'mrs_mail <mrs_mail@smeksa.com>'. The subject line is empty. The email body contains a message in Indonesian: 'On 2022-12-16 20:01, mr_mail@smeksa.com wrote: > Hai...Kamu apa kabar? > Daaf teman uji coba mail server > dimohon untuk tidak baper. Alhamdulillah baik. Daaf ya anda bucin siapa2 saya yang bisa bikin saya baper. Hehehe.....'. The interface includes a 'Contacts' sidebar on the left and a 'Send' button at the top.</p>
<p>KESAN</p>	<p>Semoga ilmu yang saya peroleh dari praktek ini dapat menjadi ilmu yang bermanfaat dan barokah untuk saya kedepannya.</p>