LDAP dengan LAM (Praktikum)

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Workshop Administrasi Jaringan

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Semester Genap

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LDAP Software

- https://en.wikipedia.org/wiki/List_of_LDAP_software
- Anda dapat memilih LDAP software yang sesuai kebutuhan anda

LDAP Account Manager (LAM)

- LAM is a web application for managing various account types in an LDAP directory.
- It is written in PHP.
- LAM has two version : free and pro.
  - Pro needs commercial license
- Available at https://www.ldap-account-manager.org/lamcms/releases

Slapd

- Singkatan dari StandAlone LDAP Daemon (Server)
- Slapd berfungsi menunggu permintaan koneksi ke port server di nomor port 389
- Beberapa perintah slapd adalah : slapadd, slapcat, slapmodify, dst

Ldap-utils

- Adalah sekumpulan utility yang dipakai untuk melakukan query di ldap server
- Beberapa perintah ldap util adalah :
  - ldapsearch
  - ldapmodify
  - ldapadd
  - ldappasswd
  - dll

1. Setting DNSMasq

```
  GNU nano 7.2                                  /etc/hosts *
127.0.1.1       debian12

10.252.44.139 fitri.edu
10.252.44.139 ns1.fitri.edu
10.252.44.139 www.fitri.edu
10.252.44.139 www.fitri2.edu
10.252.44.139 ldapmaster.fitri.edu
```

1. Pada PC yang diinstall ldap, cek IP addressnya
   #ip addr
   Misal no ip : 10.252.44.139
2. Pada PC yang diinstall dnsmasq, masukkan baris berikut di /etc/hosts
   #nano /etc/hosts
   Tambahkan nomor IP dan nama domain dari ldap
   10.252.44.139 ldapmaster.fitri.edu
   Simpan dan exit
3. Cek juga nomor IP dari server dns
   #ip addr

Pada kasus ini, baik dns server dan ldap server berada pada PC yang sama, sehingga ip addressnya sama : 10.252.44.139 dengan nama domain dns : ns1.fitri.edu

3. Buka file /etc/resolv.conf dari PC dengan dns server.

   Pastikan bahwa anda menambahkan nomor IP dari server dns di atas dns server utama anda

   nameserver 10.252.44.139

   nameserver <dns-server-sebelumnya>

   Simpan dan exit

```
  GNU nano 7.2                                  /etc/resolv.conf
# Generated by NetworkManager
search pens.ac.id
nameserver 10.252.44.139
nameserver 202.9.85.4
nameserver 202.9.85.3
```

4. Test dns server dengan mengetikkan :

   #nslookup ns1.fitri.edu

   #nslookup ldapmaster.fitri.edu

```
root@debian12:~# nslookup ns1.fitri.edu
Server:         10.252.44.139
Address:        10.252.44.139#53

Name:   ns1.fitri.edu
Address: 10.252.44.139
```

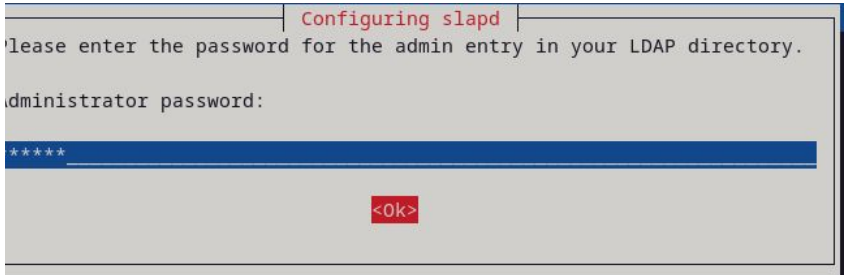
```
root@debian12:~# nslookup ldapmaster.fitri.edu
Server:         10.252.44.139
Address:        10.252.44.139#53

Name:   ldapmaster.fitri.edu
Address: 10.252.44.139
```

2. Install slapd & ldap-utils

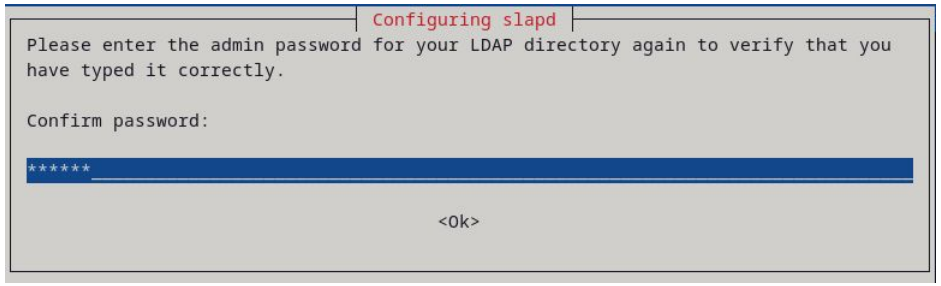
1. Update Linux
   #apt update
2. Install software berikut :

   #apt install slapd ldap-utils

   Masukkan password admin



Masukkan password yang sama

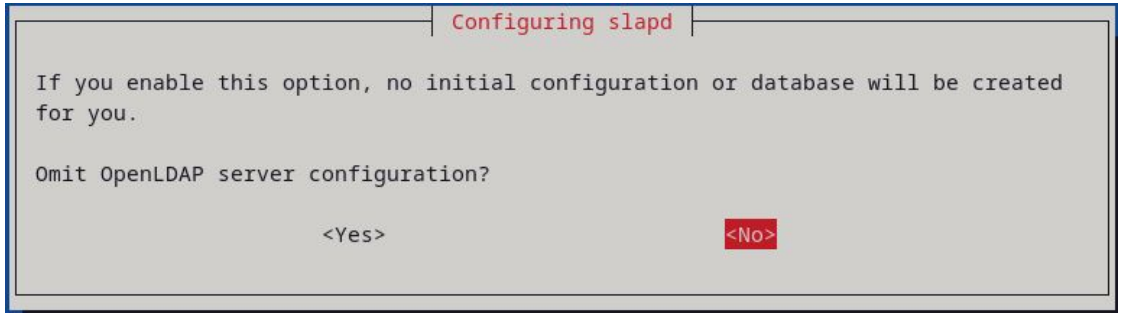


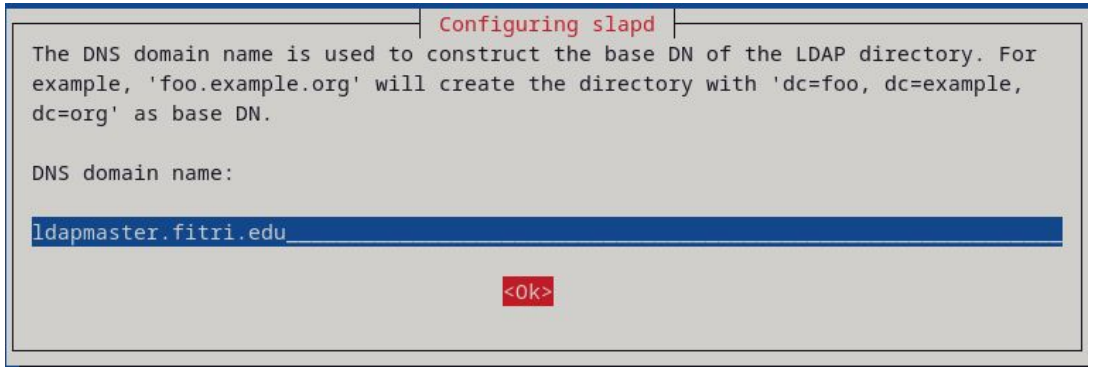
Slapd dan ldap-utils telah terinstall

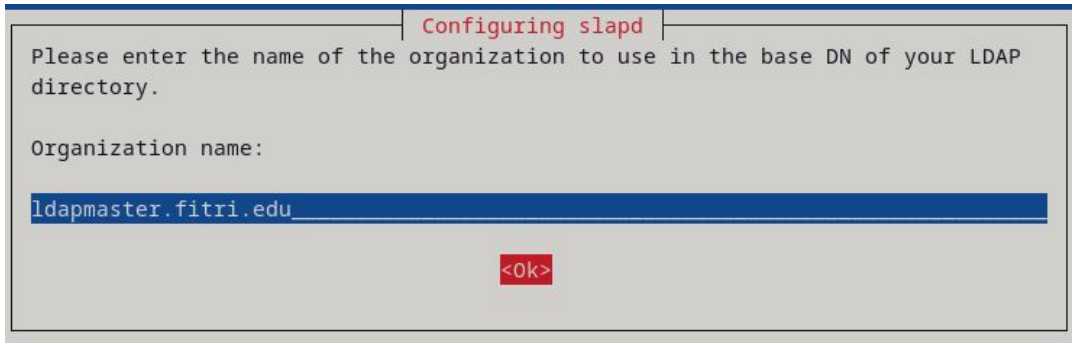
```
Unpacking ldap-utils (2.5.13+dfsg-5) ...
Setting up slapd (2.5.13+dfsg-5) ...
  Moving old database directory to /var/backups:
  - directory unknown... done.
  Creating initial configuration... done.
  Creating LDAP directory... done.
Setting up ldap-utils (2.5.13+dfsg-5) ...
Processing triggers for libc-bin (2.36-9+deb12u4) ...
Processing triggers for man-db (2.11.2-2) ...
```

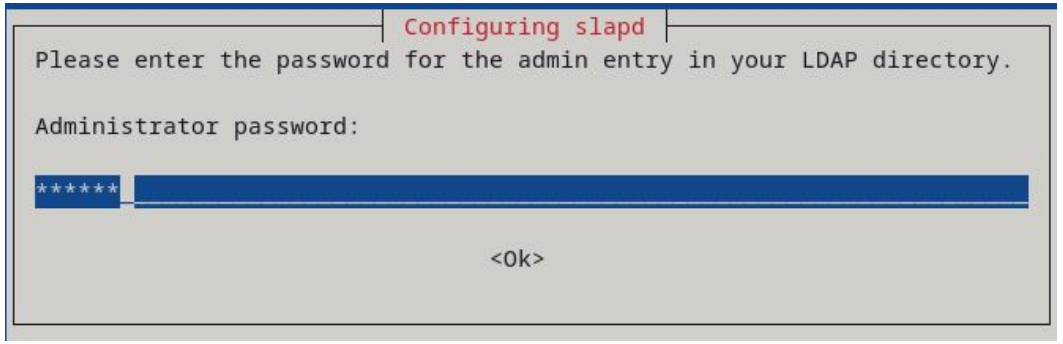
3. Lakukan reconfigurasi slapd

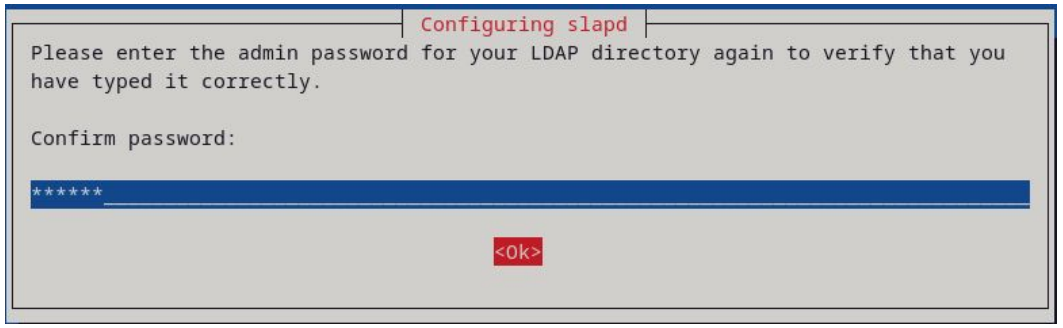
#dpkg-reconfigure slapd

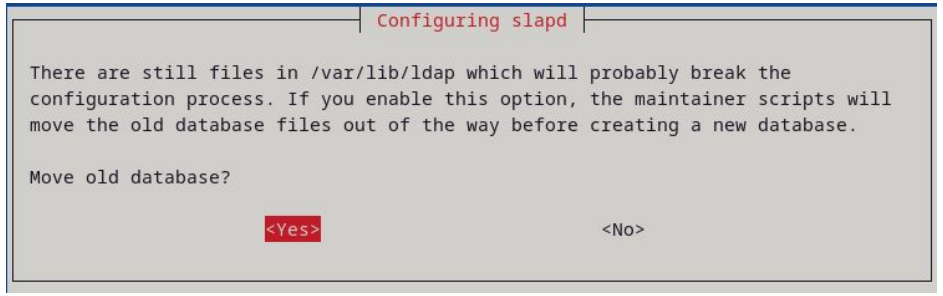













```
root@debian12:~# dpkg-reconfigure slapd
\  Backing up /etc/ldap/slapd.d in /var/backups/slapd-2.5.13+dfsg-5... done.
  Moving old database directory to /var/backups:
  - directory unknown... done.
  Creating initial configuration... done.
  Creating LDAP directory... done.
```

3. Restart slapd dan cek statusnya

```
root@debian12:~# systemctl restart slapd
root@debian12:~# systemctl status slapd
● slapd.service - LSB: OpenLDAP standalone server (Lightweight Directory Access Protoc>
     Loaded: loaded (/etc/init.d/slapd; generated)
    Drop-In: /usr/lib/systemd/system/slapd.service.d
             └─slapd-remain-after-exit.conf
     Active: active (running) since Thu 2024-05-02 13:48:57 WIB; 7s ago
```

4. Slapcat

- Slapcat digunakan untuk melihat isi dari ldap server yang telah diinputkan ketika menginstall dan mengkonfigurasi slapd
- Beberapa informasi yang dapat dilihat adalah dn :distinguished name, o : organization, dc: domain component

```
root@debian12:~# slapcat
dn: dc=ldapmaster,dc=fitri,dc=edu
objectClass: top
objectClass: dcObject
objectClass: organization
o: ldapmaster.fitri.edu
dc: ldapmaster
structuralObjectClass: organization
entryUUID: 8fbcf80a-9ca3-103e-8bf6-93d187c54ccf
creatorsName: cn=admin,dc=ldapmaster,dc=fitri,dc=edu
createTimestamp: 20240502074433Z
entryCSN: 20240502074433.618806Z#000000#000#000000
modifiersName: cn=admin,dc=ldapmaster,dc=fitri,dc=edu
modifyTimestamp: 20240502074433Z
```

5. Menambahkan ou ke ldap server

- Buat file base.ldif

  #nano base.ldif

- Tambahkan baris berikut :

```
# base.ldif
dn: ou=People,dc=ldapmaster,dc=fitri,dc=edu
objectClass: organizationalUnit
ou: people
dn: ou=Groups,dc=ldapmaster,dc=fitri,dc=edu
objectClass: organizationalUnit
ou: groups
```

- Simpan dan exit
- Pada base.ldif, dimasukkan ou:People dan ou:Groups pada dc:ldapmaster, dc=fitri, dc=edu
- Sesuaikan dc dengan nama domain anda
- Masukkan cn=admin ke file base.ldif lewat perintah ldapadd

#ldapadd -x -D cn=admin,dc=ldapmaster,dc=fitri,dc=edu -W -f base.ldif

File base.ldif dan Perintah ldapadd

```
  GNU nano 7.2                                  base.ldif
# base.ldif

dn: ou=People,dc=ldapmaster,dc=fitri,dc=edu
objectClass: organizationalUnit
ou: people

dn: ou=Groups,dc=ldapmaster,dc=fitri,dc=edu
objectClass: organizationalUnit
ou: groups
```

```
root@debian12:~# nano base.ldif
root@debian12:~# ldapadd -x -D cn=admin,dc=ldapmaster,dc=fitri,dc=edu -W -f base.ldif
Enter LDAP Password:
adding new entry "ou=People,dc=ldapmaster,dc=fitri,dc=edu"

adding new entry "ou=Groups,dc=ldapmaster,dc=fitri,dc=edu"
```

6. Mengecek ou lewat ldapsearch

- Lakukan query dengan ldapsearch untuk dc=ldapmaster,dc=fitri,dc=edu

#ldapsearch -x -b "ou=People,dc=ldapmaster,dc=fitri,dc=edu"

```
root@debian12:~# ldapsearch -x -b "dc=ldapmaster,dc=fitri,dc=edu" ou
# extended LDIF
#
# LDAPv3
# base <dc=ldapmaster,dc=fitri,dc=edu> with scope subtree
# filter: (objectclass=*)
# requesting: ou
#

# ldapmaster.fitri.edu
dn: dc=ldapmaster,dc=fitri,dc=edu

# People, ldapmaster.fitri.edu
dn: ou=People,dc=ldapmaster,dc=fitri,dc=edu
ou: people

# Groups, ldapmaster.fitri.edu
dn: ou=Groups,dc=ldapmaster,dc=fitri,dc=edu
ou: groups

# search result
search: 2
result: 0 Success

# numResponses: 4
# numEntries: 3
```

7. Menambahkan user ke ldap server

- Untuk menambahkan user baru ke ldap server, anda harus mengeset password terenkripsi

  #slappasswd

  Masukkan password untuk slapd

- Buat file untuk user

  #nano user.ldif

- Ketikkan baris berikut
- Save dan exit

```
# user.ldif

dn: uid=debian,ou=People,dc=ldapmaster,dc=fitri,dc=edu
objectClass: inetOrgPerson
objectClass: posixAccount
objectClass: shadowAccount
cn: debian
sn: bookworm
userPassword:
{SSHA}23rFF1ofbNo5MRxEJo6D2Z4PT2GOxeWt
loginShell: /bin/bash
uidNumber: 2000
gidNumber: 2000
homeDirectory: /home/debian
shadowLastChange: 0
shadowMax: 0
shadowWarning: 0

dn: cn=debian,ou=Groups,dc=ldapmaster,dc=fitri,dc=edu
objectClass: posixGroup
cn: debian
gidNumber: 2000
memberUid: debian
```

- Pada file user.ldif, anda menambahkan 2 dn, yaitu
- dn: uid=debian,ou=People
  - cn: debian,
  - sn: bookworm,
  - dst
- dn: cn=debian,ou=Groups
  - cn: debian
  - gidNumber: 2000
  - memberUid: debian

- Sekarang, tambahkan file user.ldif dengan cn=admin ke dc=ldapmaster,dc=fitri,dc=edu

#ldapadd -x -D cn=admin,dc=ldapmaster,dc=fitri, dc=edu -W -f user.ldif

```
root@debian12:~# ldapadd -x -D cn=admin,dc=ldapmaster,dc=fitri,dc=edu -W -f user.ldif
Enter LDAP Password:
adding new entry "uid=debian,ou=People,dc=ldapmaster,dc=fitri,dc=edu"

adding new entry "cn=debian,ou=Groups,dc=ldapmaster,dc=fitri,dc=edu"
```

8. Mengecek user lewat ldapsearch

- Cek user yang telah dimasukkan lewat ldapsearch

#ldapsearch -x -b "ou=People,dc=ldapmaster,dc=fitri,dc=edu"

```
# extended LDIF
#
# LDAPv3
# base <ou=People,dc=ldapmaster,dc=fitri,dc=edu> with scope subtree
# filter: (objectclass=*)
# requesting: ALL
#

# People, ldapmaster.fitri.edu
dn: ou=People,dc=ldapmaster,dc=fitri,dc=edu
objectClass: organizationalUnit
ou: people

# debian, People, ldapmaster.fitri.edu
dn: uid=debian,ou=People,dc=ldapmaster,dc=fitri,dc=edu
objectClass: inetOrgPerson
objectClass: posixAccount
objectClass: shadowAccount
cn: debian
sn: bookworm
loginShell: /bin/bash
shadowLastChange: 0
shadowMax: 0
shadowWarning: 0
uid: debian

# search result
search: 2
result: 0 Success
# numResponses: 3
# numEntries: 2
```

9. Install ldap account manager (LAM)

- Install ldap account manager

  #apt install ldap-account-manager
- Cek versi php

  #php -v

  Versi php yang dipakai adalah 8.2
- Backup dulu file berikut

  #cp /etc/php/8.2/apache2/php.ini /etc/php/8.2/apache2/php.ini.orig
- Edit file php.ini

  #nano /etc/php/8.2/apache2/php.ini

  Cari memory_limit, ubah menjadi 256M
- Save dan Exit

```
root@debian12:~# php -v
PHP 8.2.18 (cli) (built: Apr 11 2024 22:07:45) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.2.18, Copyright (c) Zend Technologies
    with Zend OPcache v8.2.18, Copyright (c), by Zend Technologies
root@debian12:~#
```

```
  GNU nano 7.2                    /etc/php/8.2/apache2/php.ini *
;max_input_nesting_level = 64

; How many GET/POST/COOKIE input variables may be accepted
;max_input_vars = 1000

; How many multipart body parts (combined input variable and file uploads) may
; be accepted.
; Default Value: -1 (Sum of max_input_vars and max_file_uploads)
;max_multipart_body_parts = 1500

; Maximum amount of memory a script may consume
; https://php.net/memory-limit
memory_limit = 256M
```

10. Konfigurasi virtual hosting untuk LAM

- Buka file konfigurasi Apache2 untuk ldap-account-manager /etc/apache2/conf-enabled/ldap-account-manager.conf
- Sebelumnya backup terlebih dahulu file tersebut

  #cp /etc/apache2/conf-enabled/ldap-account-manager.conf /etc/apache2/conf-enabled/ldap-account-manager.conf.orig
- Buka dengan nano

  #nano /etc/apache2/conf-enabled/ldap-account-manager.conf
- Edit bagian berikut

  #Require all granted

  Require ip 127.0.0.1 192.168.10.0/24
- Save dan exit

```
  GNU nano 7.2      /etc/apache2/conf-enabled/ldap-account-manager.conf *

Alias /lam /usr/share/ldap-account-manager

# HSTS header to enforce https:// connections (requires active mod_headers)
# Header always set Strict-Transport-Security "max-age=31536000"

<Directory /usr/share/ldap-account-manager>
  Options +FollowSymLinks
  AllowOverride None
  #Require all granted
  Require ip 127.0.0.1 10.252.44.0/24
  DirectoryIndex index.html
</Directory>
```

11. Merestart apache & cek statusnya

- Restart apache2 dan cek statusnya

```
root@debian12:~# systemctl restart apache2
root@debian12:~# systemctl status apache2
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/lib/systemd/system/apache2.service; enabled; preset: enabled)
     Active: active (running) since Thu 2024-05-02 15:01:39 WIB; 6s ago
       Docs: https://httpd.apache.org/docs/2.4/
    Process: 127151 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 127156 (apache2)
      Tasks: 6 (limit: 2244)
```

12. Setting Konfigurasi LAM

1. Buka browser dan ketikkan http://ldapmaster.fitri.edu/lam
2. Anda tidak perlu login
3. Klik LAM configuration

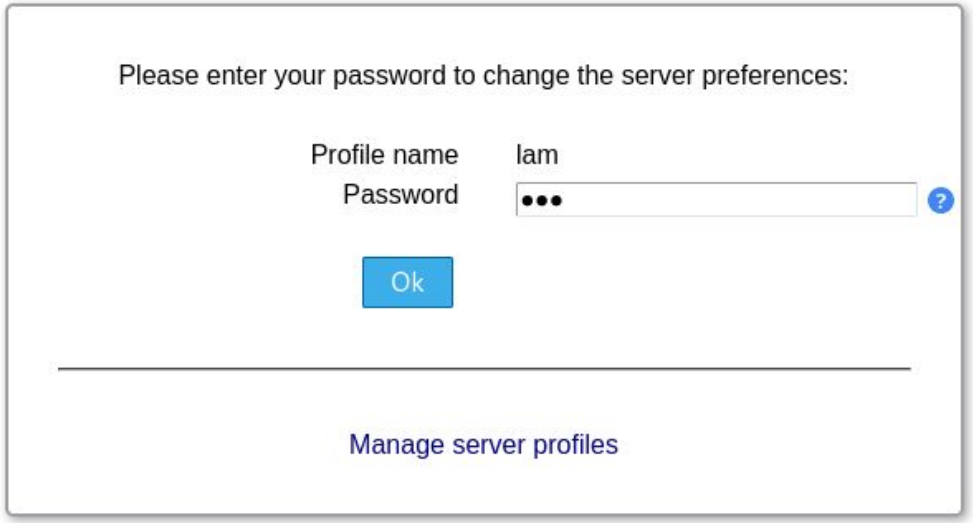
4. Klik Edit server profiles

5. Masukkan password default yaitu lam

profile name : lam

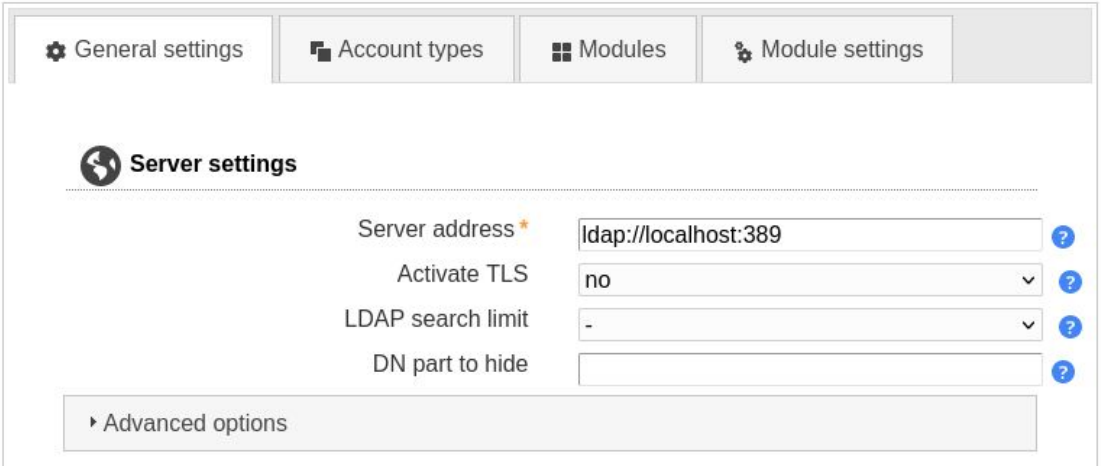
password : lam

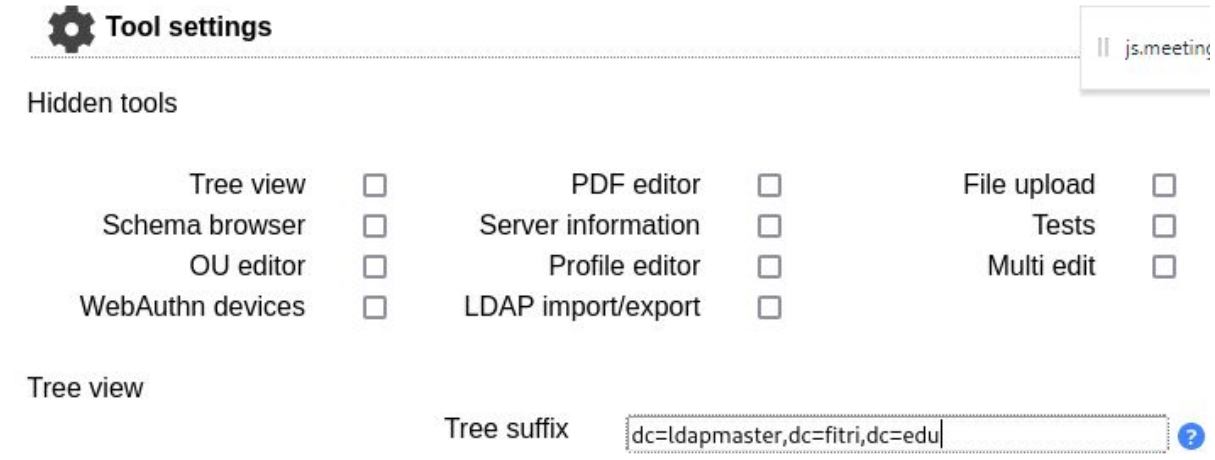
Klik OK

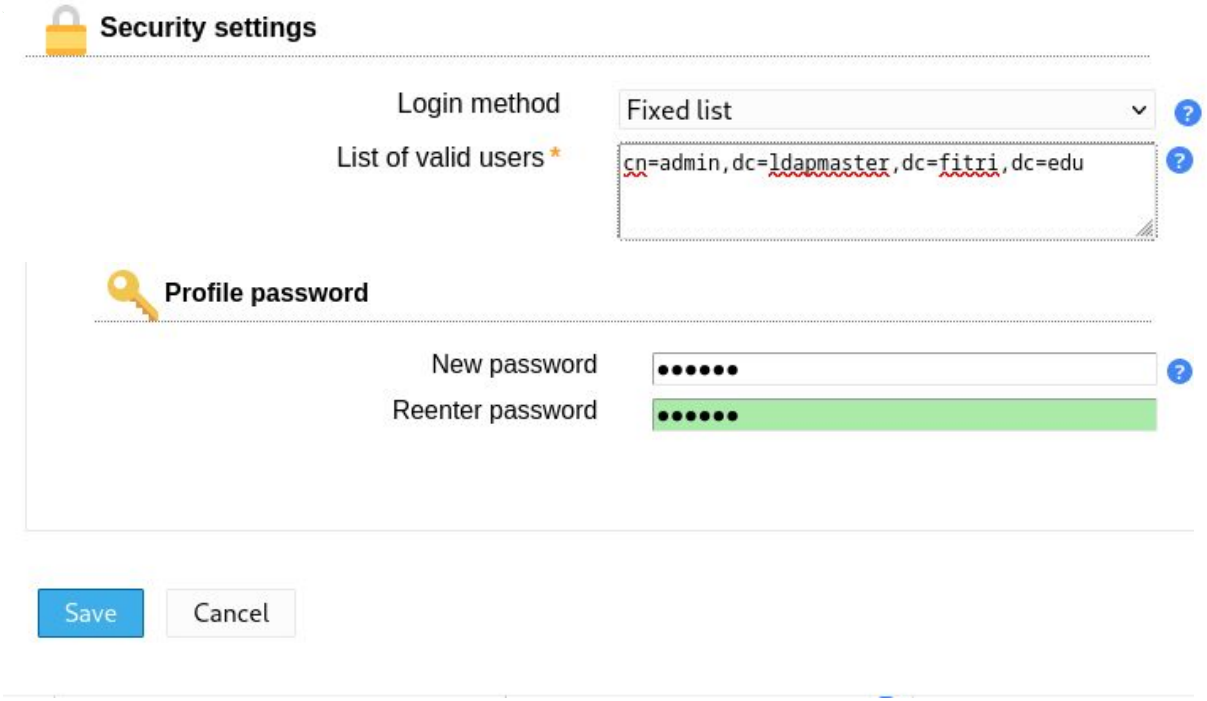


Konfigurasi Server profile

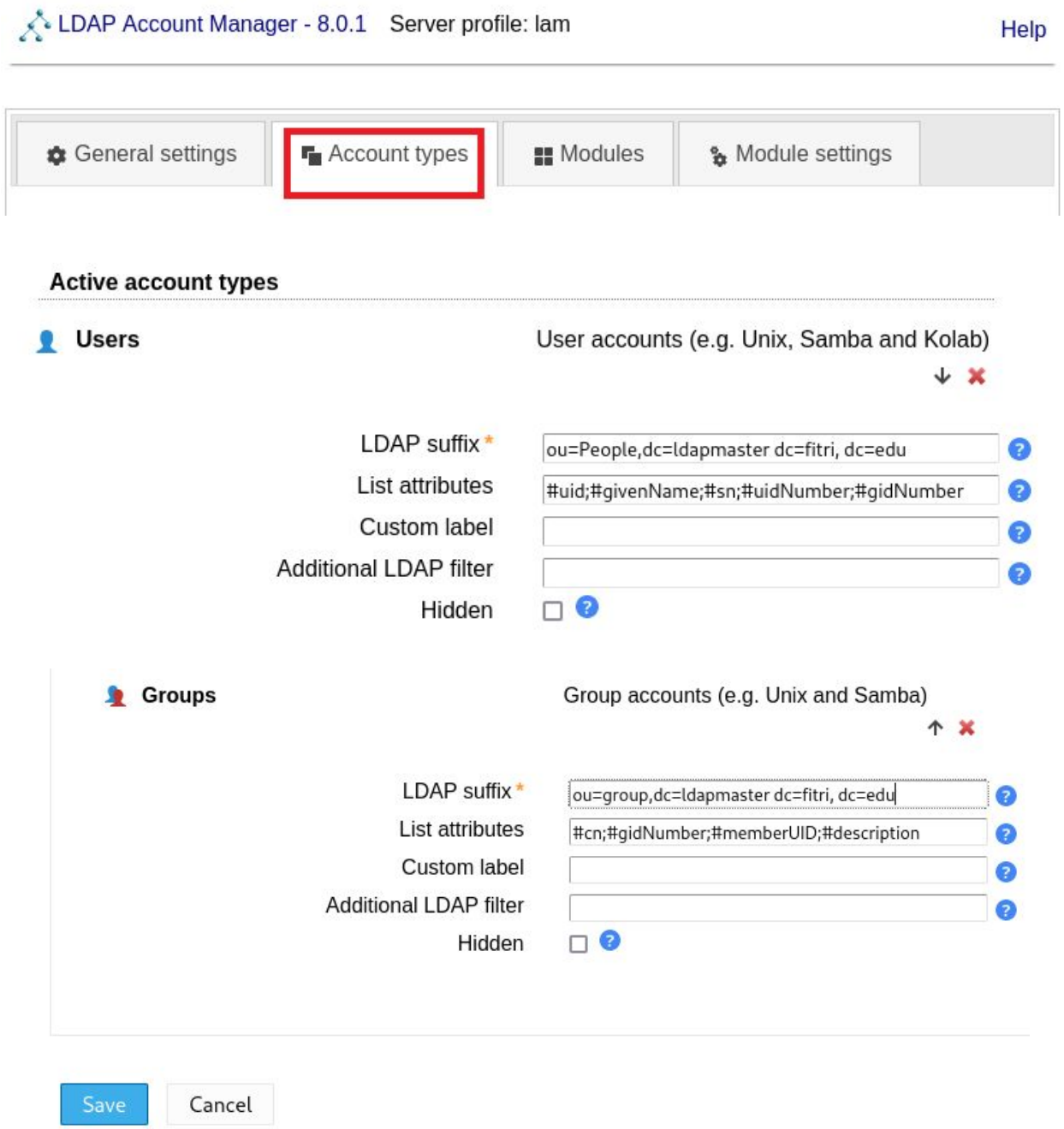
- Pada Tab General Setting, carilah Tool settings, Security settings dan Profile password
- Pada Profile password, masukkan password baru sesuai keinginan anda
- Jangan lupa di Save



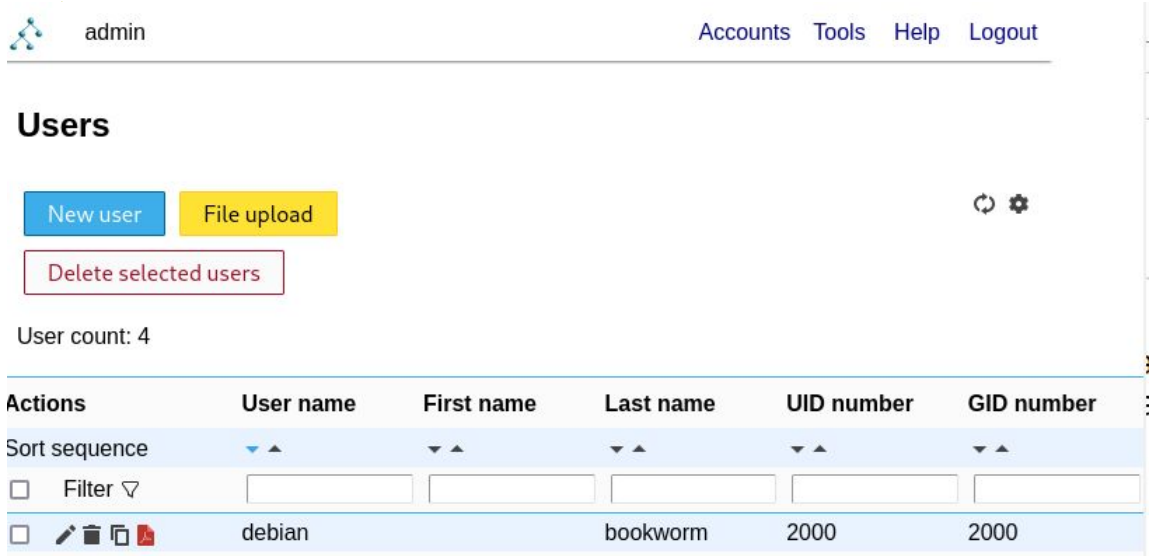




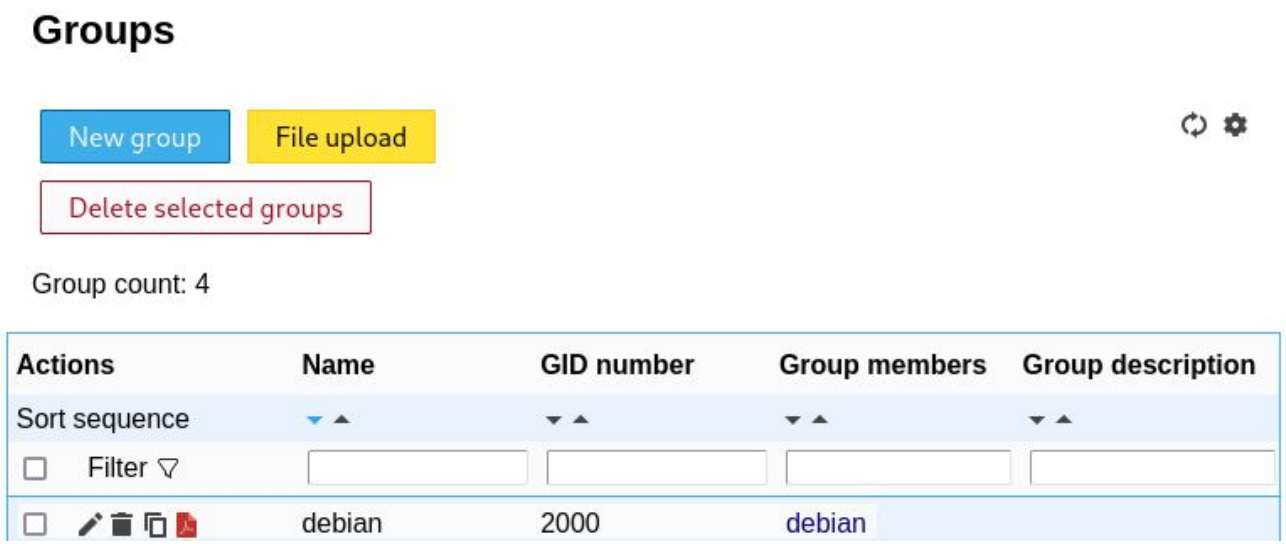
- Klik LAM Configuration
- Login dan masukkan password yang baru kita buat
  - profile name : lam
  - password : [password-baru]
- Buka tab Account Types
- Pada Active account types
- Pada kolom Users, masukkan LDAP Suffix
- Pada kolom Groups, masukkan LDAP Suffix
- Klik Save yang ada dibawah



- Ketika anda menekan save, secara otomatis konfigurasi akan disimpan dan anda akan dibawa ke login page
- Sekarang masuklah kembali dengan username: admin, dengan menggunakan password yang tadi anda set
- Sekarang klik Account, lalu Users
- Nampak user debian yang kita buat lewat file user.ldif

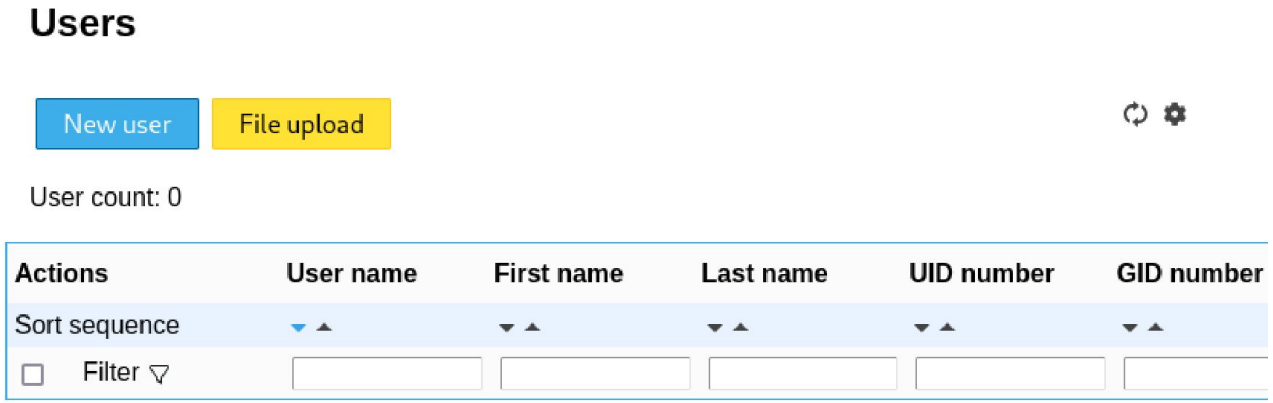


- Sekarang klik Account, lalu Groups
- Nampak group debian yang kita buat lewat file user.ldif



Konfigurasi user dan group

- Klik Accounts
- Pilih Users
- Klik New User

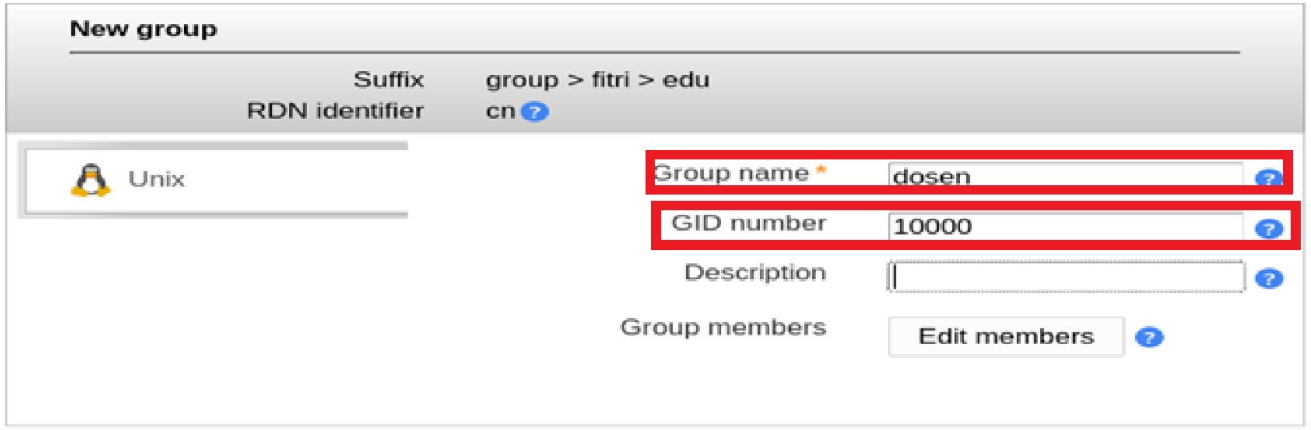


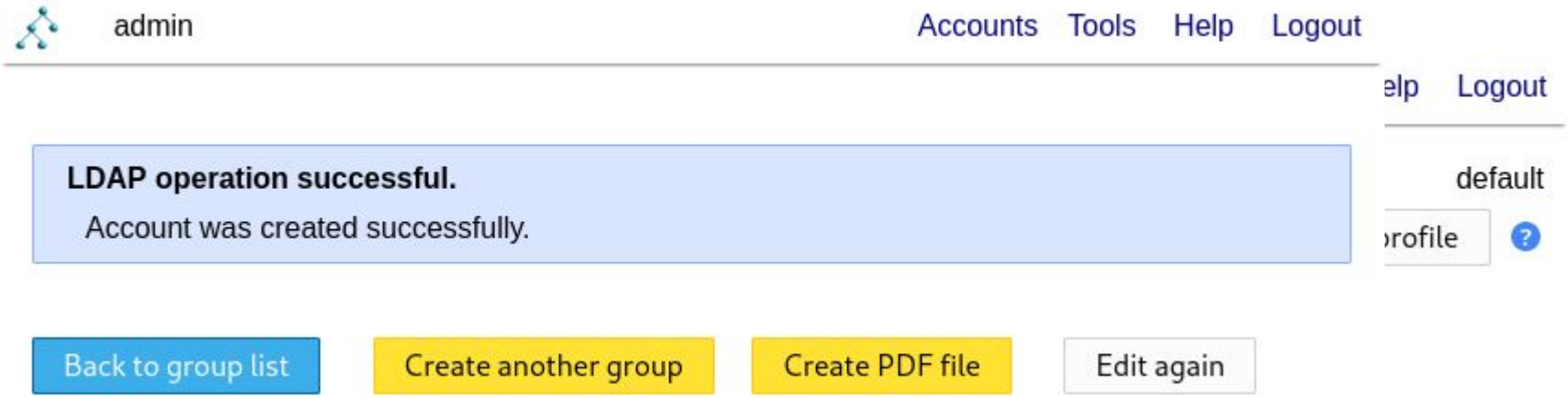
Membuat Group

- Klik Accounts
- Pilih Groups
- Klik New Group
- Buat 3 grup: dosen,siswa dan administrasi
- Isikan Group name dan GID number

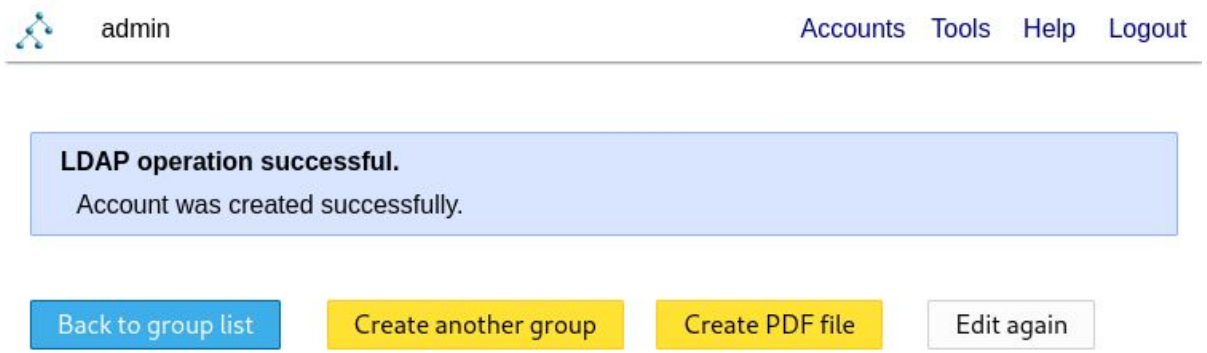
  Group nama : dosen

  GID number : 10000
- GID dimulai dari 10000
- Klik Save



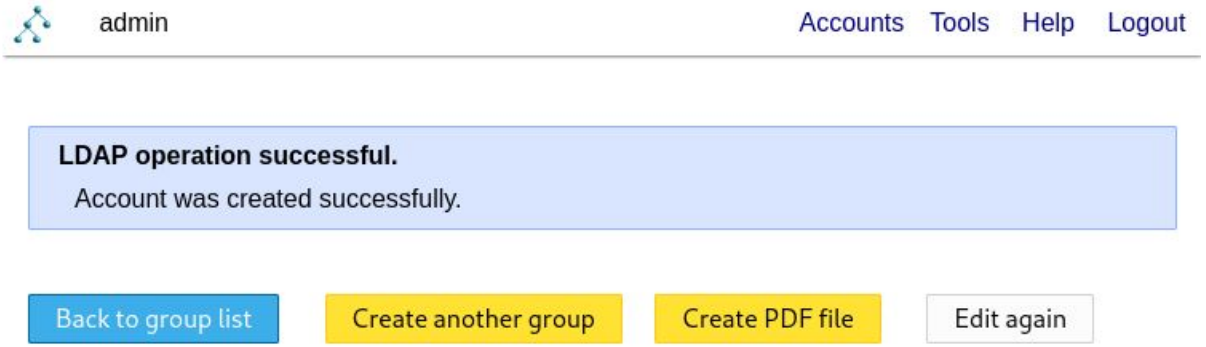


- Akan muncul pesan bahwa pembuatan grup sukses

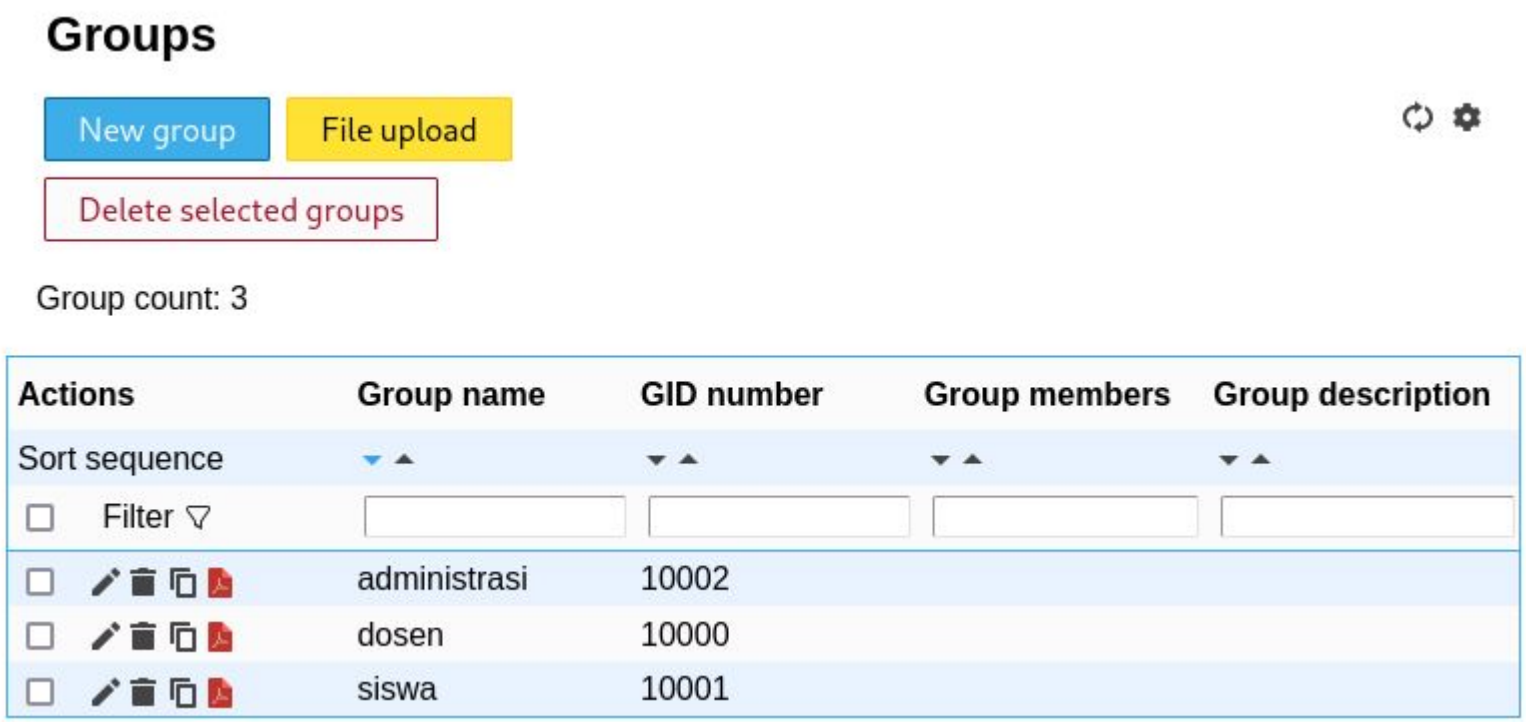


- Klik Create another group untuk membuat grup baru
- Buat 2 grup lagi yaitu siswa dan administrasi

- Klik Save
- Jika sudah terbentuk 3 grup baru, maka klik Back to group list

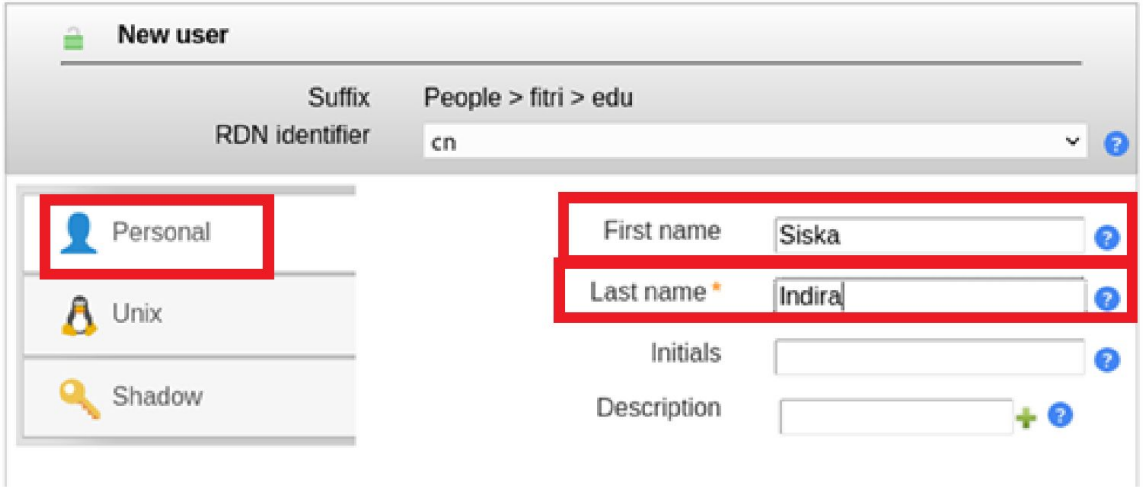


- Untuk melihat list grup yang dibuat



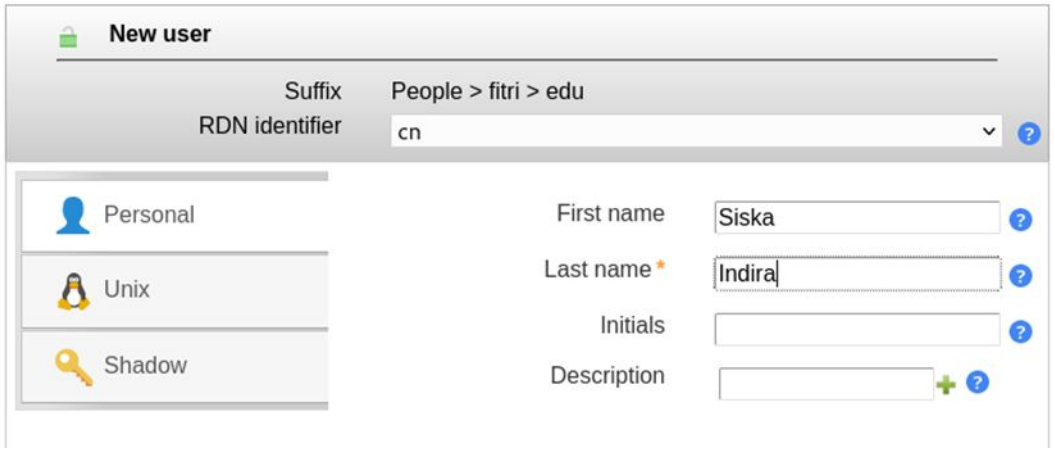
Membuat User

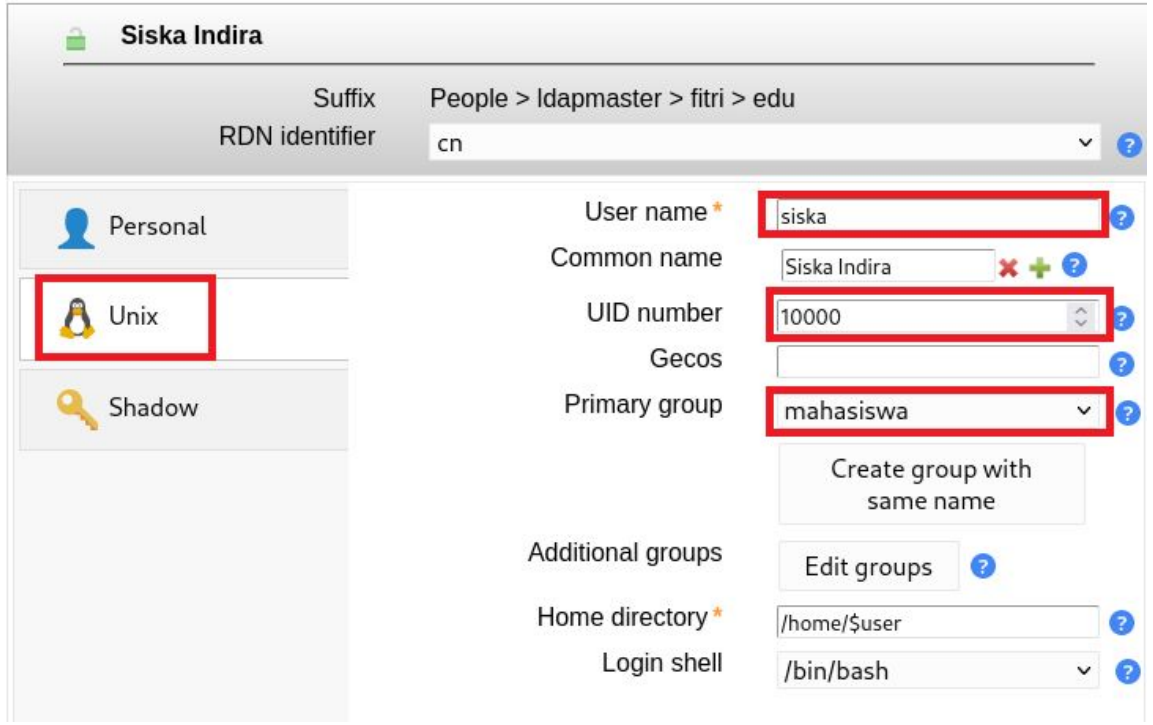
- Klik Accounts
- Pilih Users
- Pada tab Personal, pastikan informasi seperti diatas
- Pada tab Unix, masukkan username dan primary group
- Untuk user siska, masukkan ke grup siswa
- Klik Save



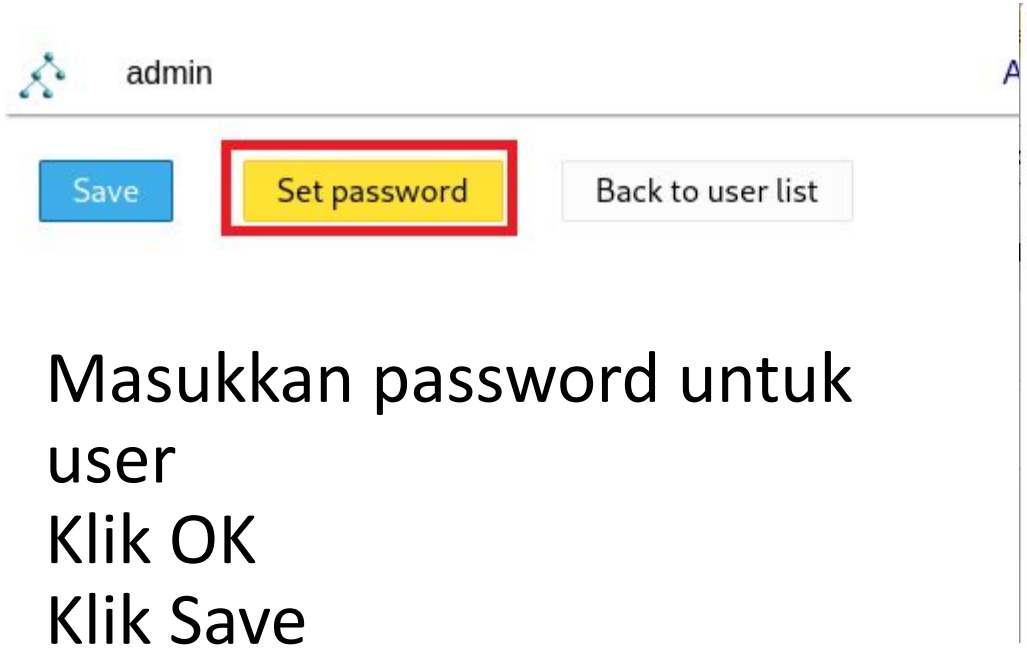
Membuat User

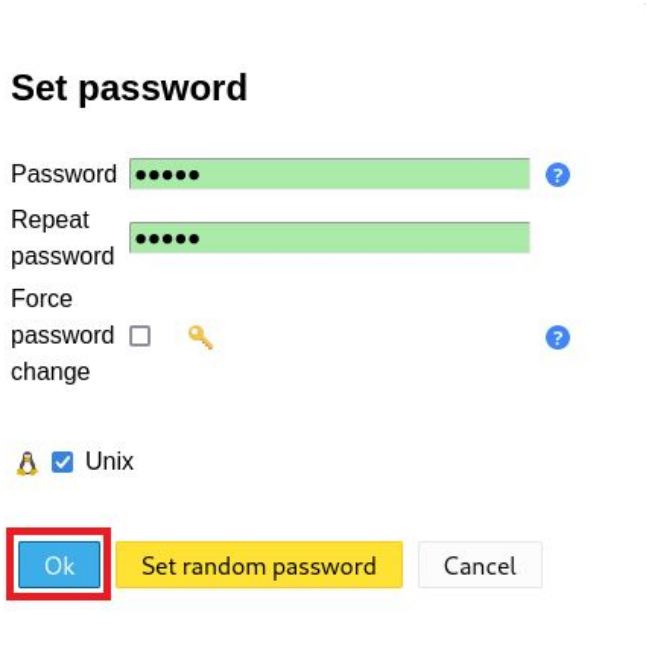
- Ada 3 tab, Personal, Unix dan Shadow
- Isi tab Personal seperti disamping
  - Isi First Name dan Last Name
- Klik tab Unix di sebelah kiri
  - Isi User name, UID number dan Primary Group



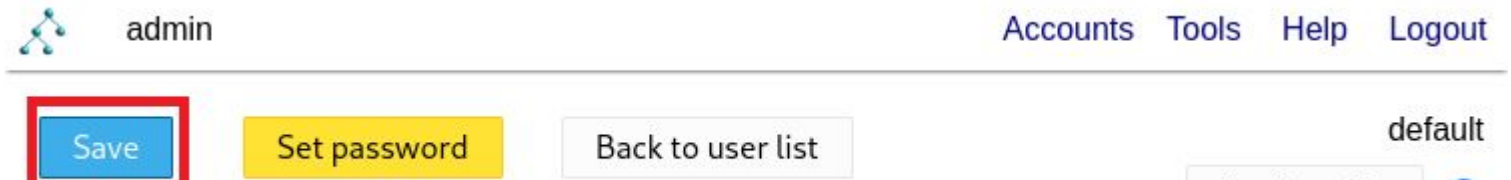


- Jika sudah lakukan setting password

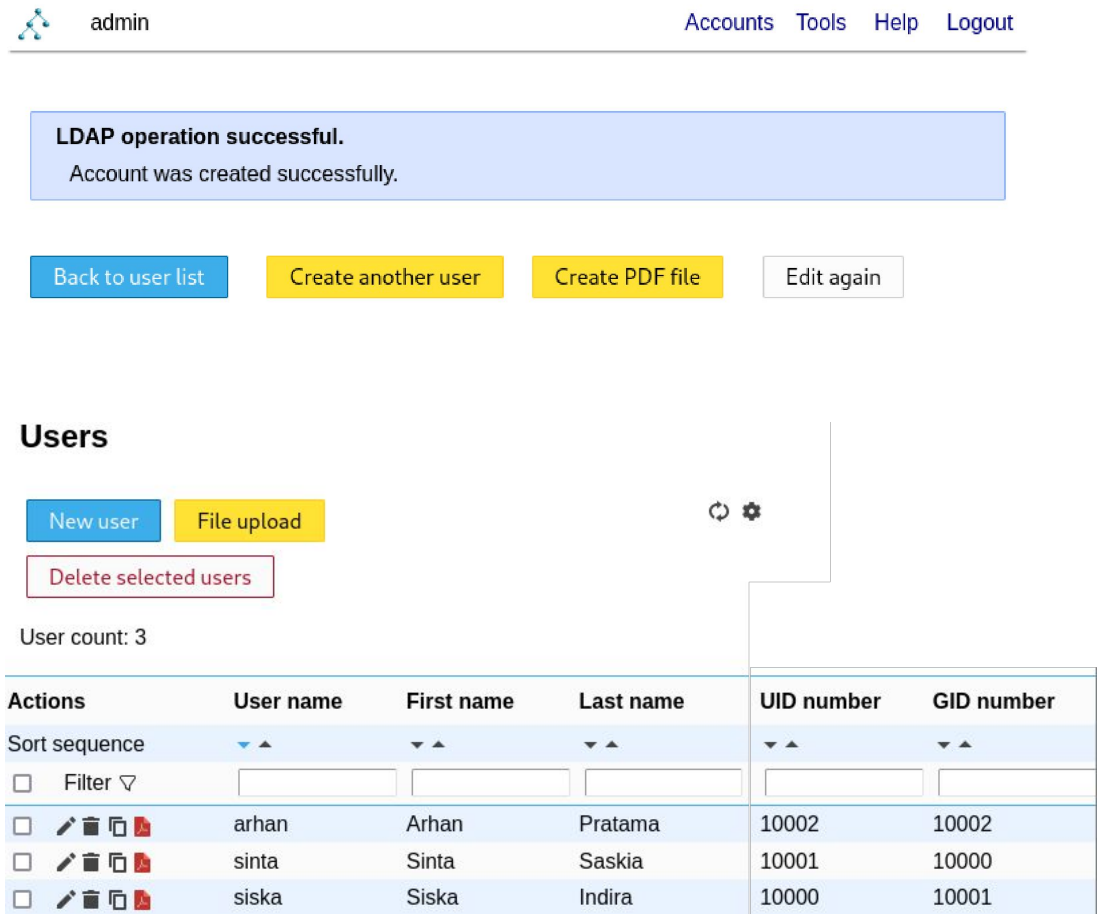




- Masukkan password untuk user
- Klik OK
- Klik Save



- Setelah tersimpan, maka anda ditawari untuk membuat user baru lagi atau kembali ke listing user
- Klik Create another user jika anda membuat user baru
- Buatlah 2 user baru untuk group administrasi dan dosen
- Untuk melihat user yang telah diciptakan, anda bisa mengklik Back to user list

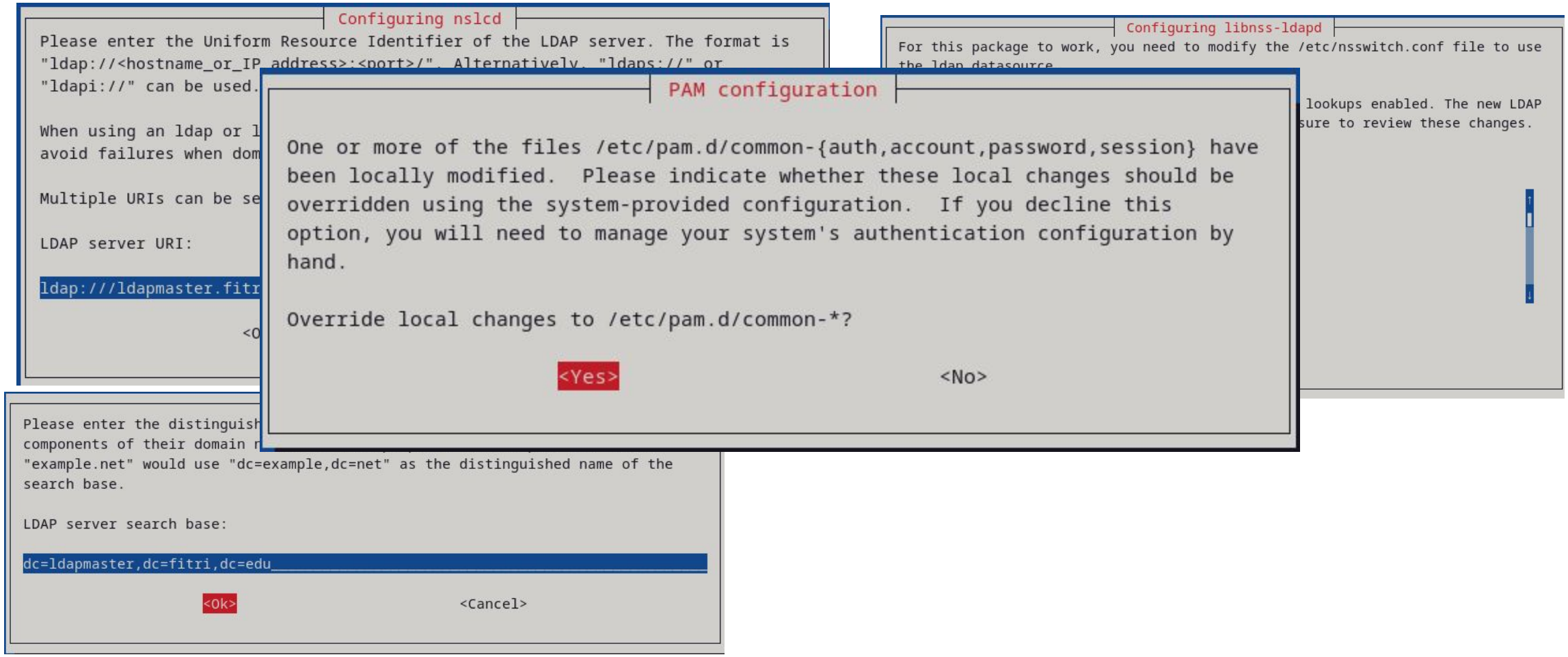


Instalasi ldap-client

- Buka PC baru / VM baru.

  PC baru atau VM baru ini akan kita jadikan ldap-client
- Install software berikut untuk ldap-client

  #apt install libnss-ldapd libpam-ldapd ldap-utils
- Setelah instalasi, anda akan diminta mengkonfigurasi libnss-ldap
- Ikuti langkah berikut


Configuring nslcd
Please enter the Uniform Resource Identifier of the LDAP server. The format is
"ldap://<hostname_or_IP address>:<port>/". Alternatively, "ldaps://" or
"ldapi://" can be used.
When using an ldap or l
avoid failures when dom
Multiple URIs can be se
LDAP server URI:
ldap:///ldapmaster.fitr
Configuring libnss-ldapd
For this package to work, you need to modify the /etc/nsswitch.conf file to use
lookups enabled. The new LDAP
sure to review these changes.
PAM configuration
One or more of the files /etc/pam.d/common-{auth,account,password,session} have been locally modified. Please indicate whether these local changes should be overridden using the system-provided configuration. If you decline this option, you will need to manage your system's authentication configuration by hand.
Override local changes to /etc/pam.d/common-*?
<Yes>
<No>
Please enter the distinguish
components of their domain
"example.net" would use "dc=example,dc=net" as the distinguished name of the search base.
LDAP server search base:
dc=ldapmaster,dc=fitri,dc=edu
<Ok>
<Cancel>

Konfigurasi libnss-ldap

Configuring libnss-ldap

Please enter the Uniform Resource Identifier of the LDAP server. The format is 'ldap://<hostname_or_IP>:<port>/'. Alternatively, 'ldaps://' or 'ldapi://' can be used. The port number is optional.

Using an IP address is recommended to avoid failures when domain name services are unavailable.

LDAP server URI:

1

ldap://192.168.220.128

<Ok>

Configuring libnss-ldap

Please choose the version of the LDAP protocol that should be used by ldapns. Using the highest available version number is recommended.

LDAP version to use:

3

3
2

<Ok>

Configuring libnss-ldap

Please enter the distinguished name of the LDAP search base. Many sites use the components of their domain names for this purpose. For example,

Configuring libnss-ldap

Please choose which account will be used for nss requests with root privileges.

Note: For this to work the account needs permission to access the attributes in the LDAP directory that are related to the users' shado entries as well as users' and groups' passwords.

unt for root:

4

dc=fitri,dc=edu

Configuring nslcd

Please enter the distinguished name of the LDAP search base. Many sites use the components of their domain names for this purpose. For example, the domain "example.net" would use "dc=example,dc=net" as search base.

LDAP server search base:

dc=ldapmaster,dc=fitri,dc=edu

<Ok>

Configuring nslcd

Please enter the distinguished name of the LDAP search base. Many sites use the components of their domain names for this purpose. For example, the domain "example.net" would use "dc=example,dc=net" as the distinguished name of the search base.

LDAP server search base:

dc=ldapmaster,dc=fitri,dc=edu

1

2

```
Configuring libnss-ldap

Please enter the password to use when libnss-ldap tries to login to the
LDAP directory using the LDAP account for root.

The password will be stored in a separate file /etc/libnss-ldap.secret
which will be made readable to root only.

Entering an empty password will re-use the old password.

LDAP root account password:

******

<Ok>
```

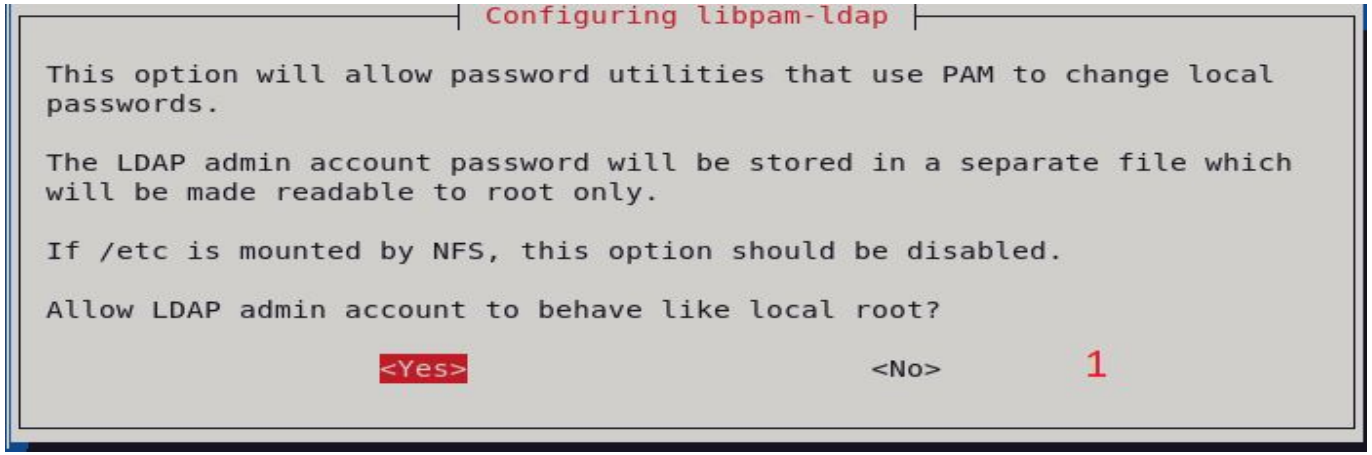
5

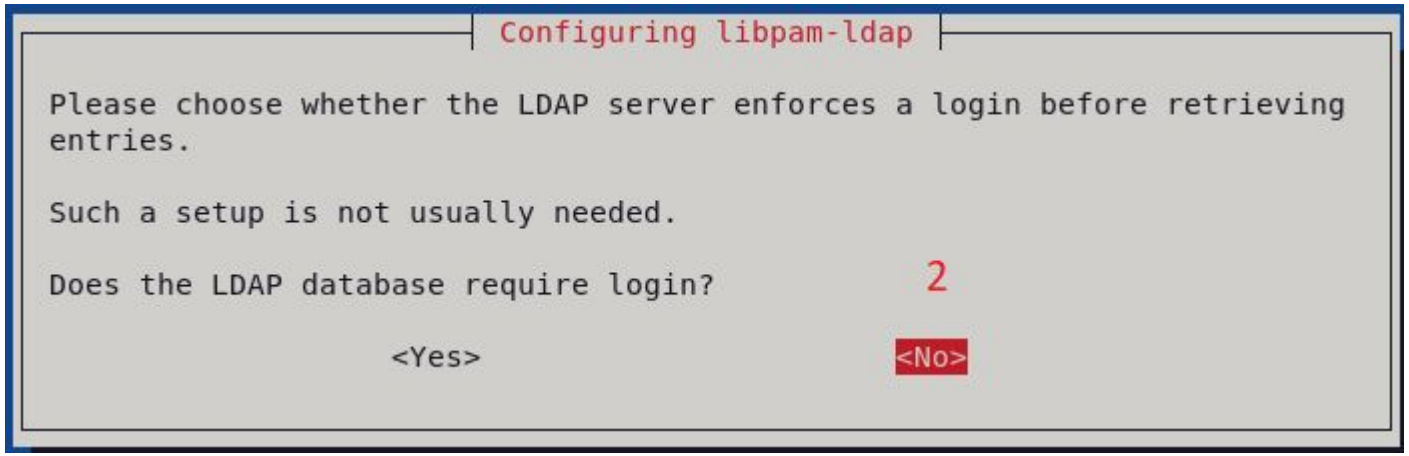
```
Configuring libnss-ldap

nsswitch.conf not managed automatically

For the libnss-ldap package to work, you need to modify your
/etc/nsswitch.conf to use the "ldap" datasource.  There is an example
file at /usr/share/doc/libnss-ldap/examples/nsswitch.ldap which can be
used as an example for your nsswitch setup, or it can be copied over
your current setup.

Also, before removing this package, it is wise to remove the "ldap"
entries from nsswitch.conf to keep basic services functioning.

<Ok>
```

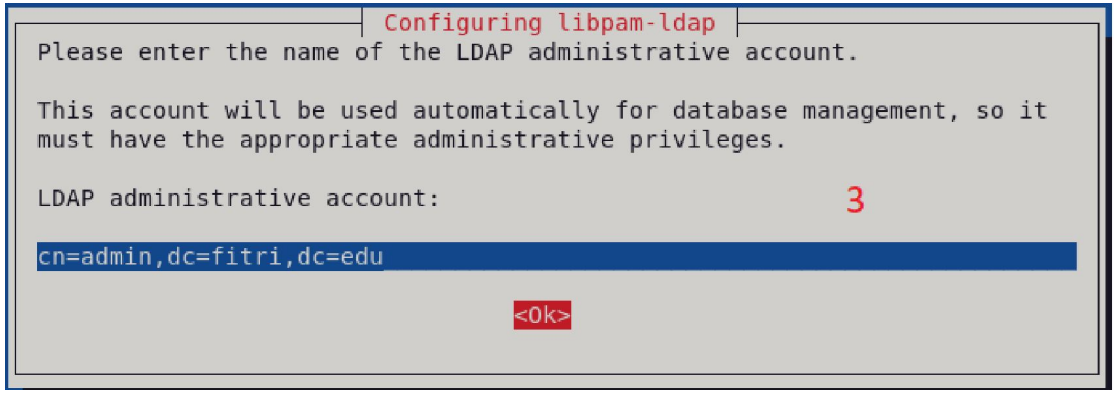
6

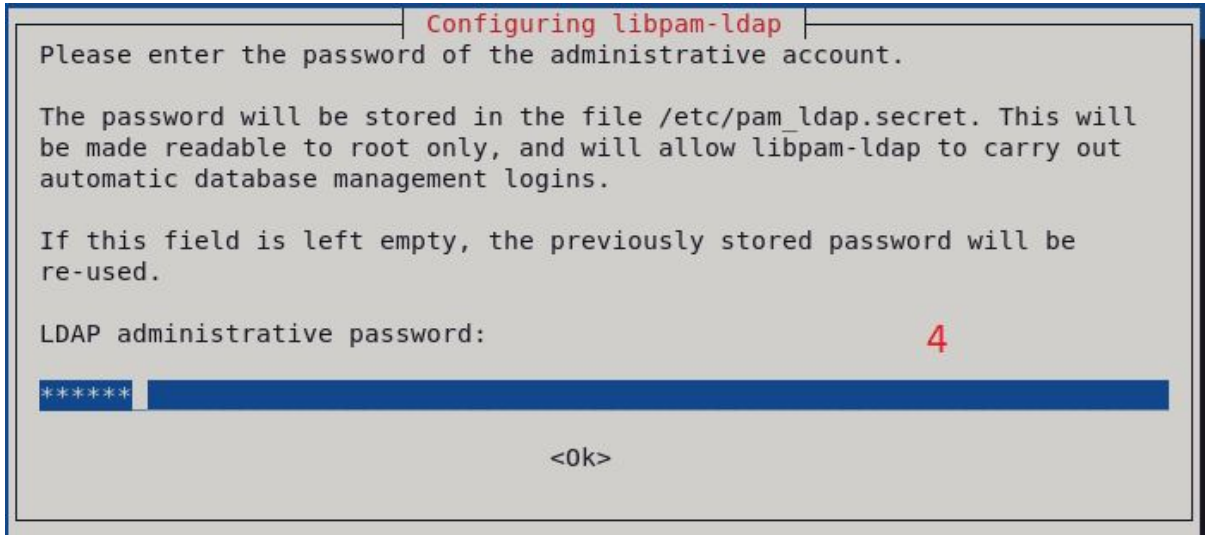
Konfigurasi libpam-ldap

- Sekarang lakukan konfigurasi libpam-ldap

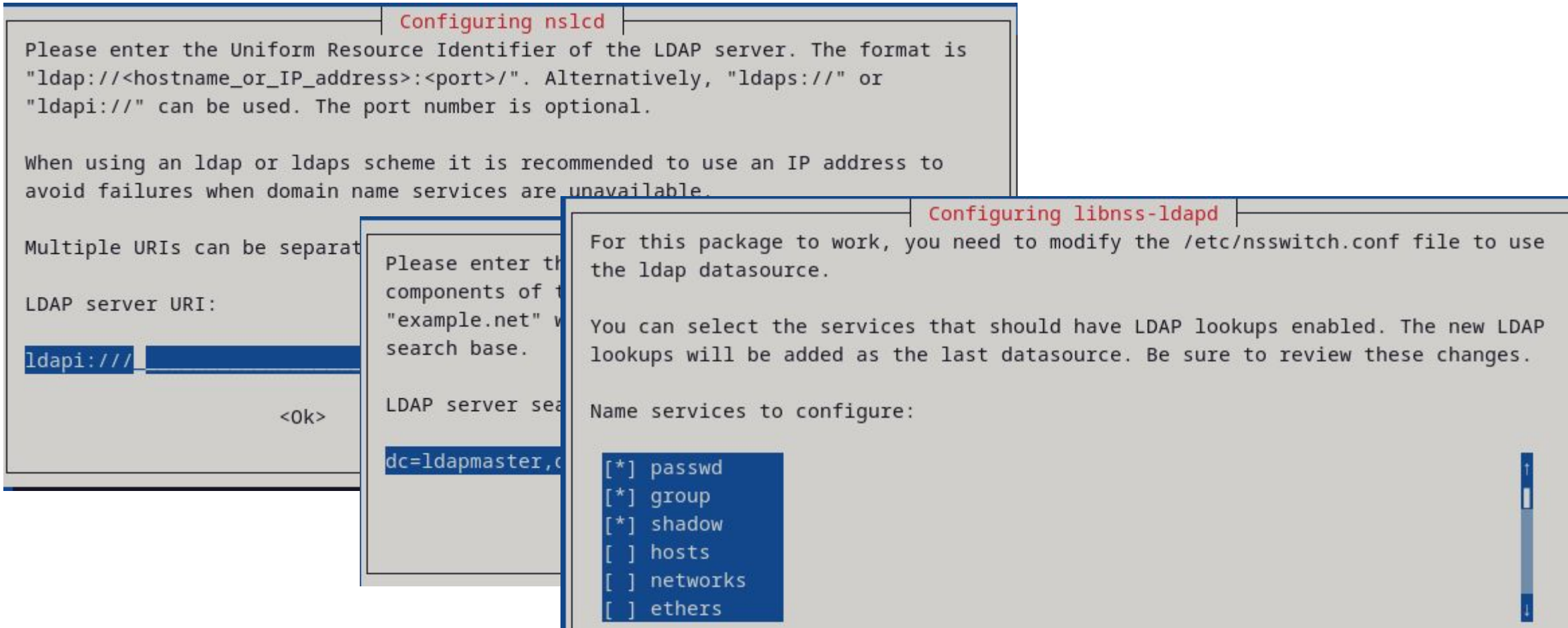





Configuring libpam-ldap
Please enter the name of the LDAP administrative account.
This account will be used automatically for database management, so it must have the appropriate administrative privileges.
LDAP administrative account:
3
cn=admin,dc=fitri,dc=edu
<Ok>

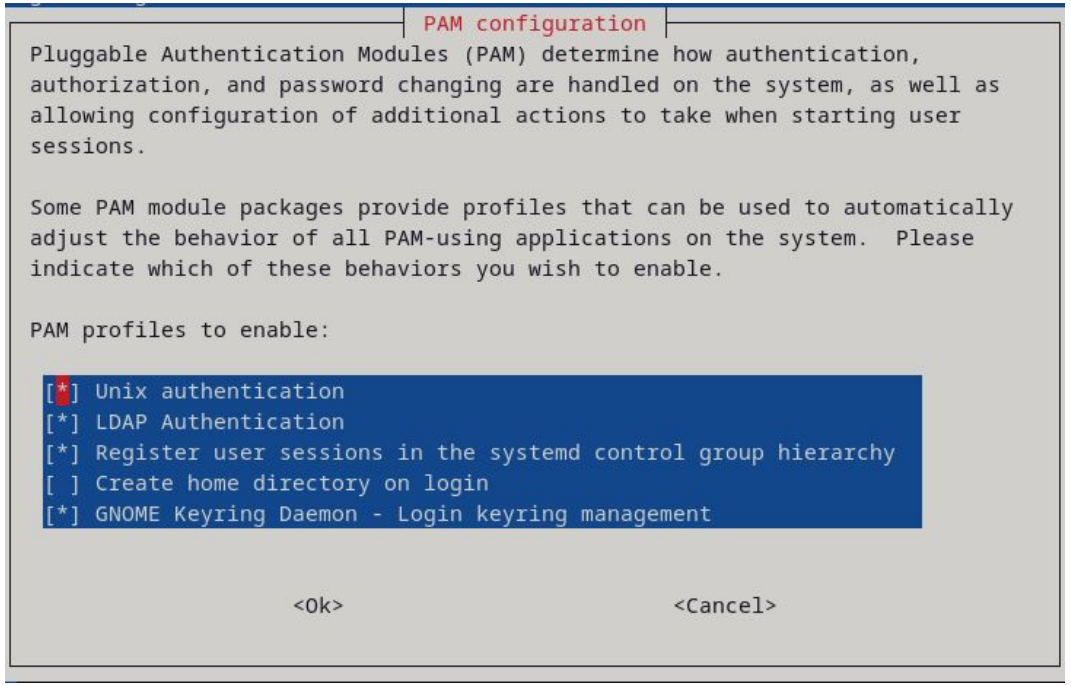

Configuring libpam-ldap
Please enter the password of the administrative account.
The password will be stored in the file /etc/pam_ldap.secret. This will be made readable to root only, and will allow libpam-ldap to carry out automatic database management logins.
If this field is left empty, the previously stored password will be re-used.
LDAP administrative password:
4
******
<Ok>

#apt install libpam-ldap



```
PAM configuration

Pluggable Authentication Modules (PAM) determine how authentication,
authorization, and password changing are handled on the system, as well as
allowing configuration of additional actions to take when starting user
sessions.

Some PAM module packages provide profiles that can be used to automatically
adjust the behavior of all PAM-using applications on the system.  Please
indicate which of these behaviors you wish to enable.

PAM profiles to enable:

[*] Unix authentication
[*] LDAP Authentication
[*] Register user sessions in the systemd control group hierarchy
[ ] Create home directory on login
[*] GNOME Keyring Daemon - Login keyring management

<Ok>                    <Cancel>
```

#pam-auth-update



Konfigurasi Name Service Switch (nsswitch)

- Nsswitch bertugas mengkoneksikan PC dengan berbagai konfigurasi database dan resolusi domain
- Nsswitch biasanya digunakan oleh file /etc/passwd, /etc/group, /etc/hosts, Domain Name System (DNS), Network Information Service (NIS, NIS+), dan LDAP.
- Sekarang, backup dulu nsswitch.conf

  #cp /etc/nsswitch.conf /etc/nsswitch.conf.orig
- Lakukan file konfigurasi nsswitch.conf

  #nano /etc/nsswitch.conf

  Hapus atau beri tanda # pada passwd, group dan shadow

  Masukkan

  passwd: compat ldap

  group: compat ldap

  shadow: compat ldap

```
  GNU nano 5.4                    /etc/nsswitch.conf *
# /etc/nsswitch.conf
#
# Example configuration of GNU Name Service Switch functionality.
# If you have the `glibc-doc-reference' and `info' packages installed
# `info libc "Name Service Switch"' for information about this file.

#passwd:         files systemd
passwd:         compat ldap
#group:          files systemd
group:          compat ldap
#shadow:         files
shadow:         compat ldap
gshadow:        files
#
hosts:          files mdns4_minimal [NOTFOUND=return] dns myhostname
networks:       files

protocols:      db files
services:       db files
ethers:         db files
```

Konfigurasi File common-password

- Sekarang, backup dulu common-password

  #cp /etc/pam.d/common-password /etc/pam.d/common-password.orig

  Lakukan konfigurasi pada file common-password. Anda dapat menggunakan nano

  #nano +26 /etc/pam.d/common-password

  nano akan bergerak ke baris 26
- Hapus use_authtok di baris 26,

```
password        [success=1 user_unknown=ignore default=die]     pam_ldap.so    use_authtok    try_first_pass
```

- Edit seperti baris dibawah :

```
password        [success=1 user_unknown=ignore default=die]     pam_ldap.so     try_first_pass
```

- Simpan dan exit

Konfigurasi File common-session

- Sekarang, backup dulu common-session

  #cp /etc/pam.d/common-session /etc/pam.d/common-session.orig
- Lakukan konfigurasi pada file common-password. Anda dapat menggunakan nano

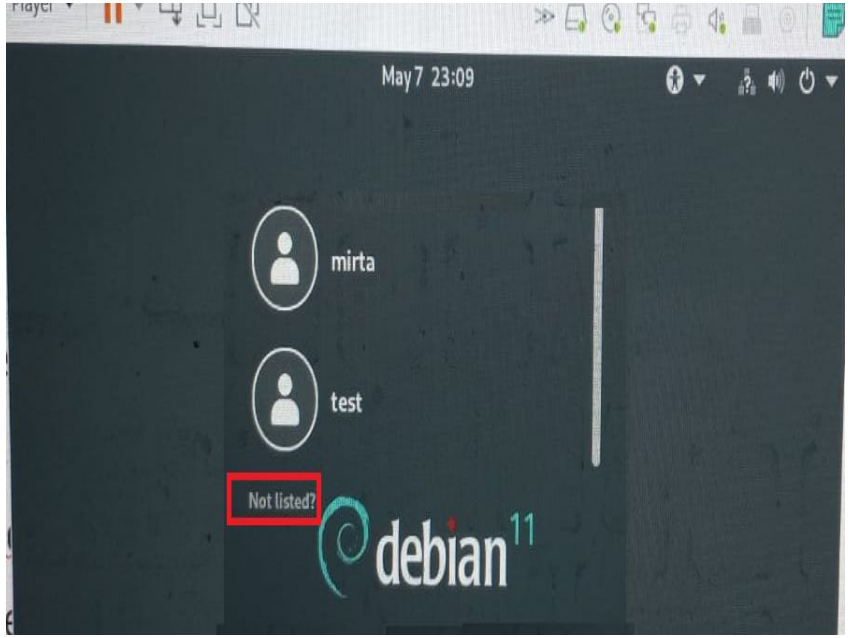
  #nano /etc/pam.d/ common-session
- Carilah baris terakhir sebelum #end of pam-auth-update config
- Tambahkan

```
session optional pam_mkhomedir.so skel=/etc/skel umask=077
# end of pam-auth-update config
```

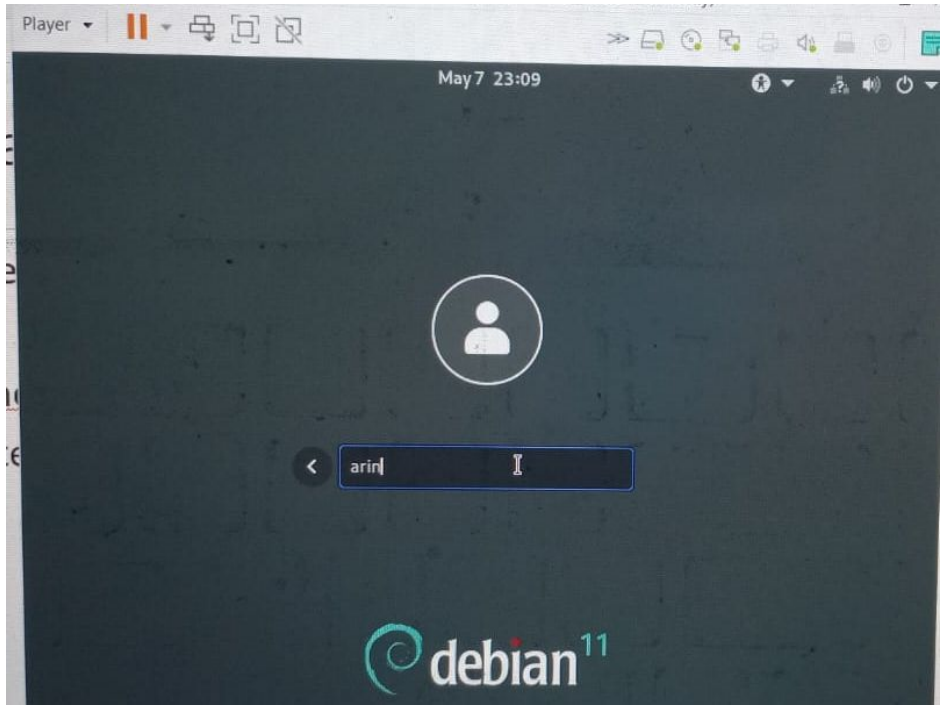
- Simpan dan exit

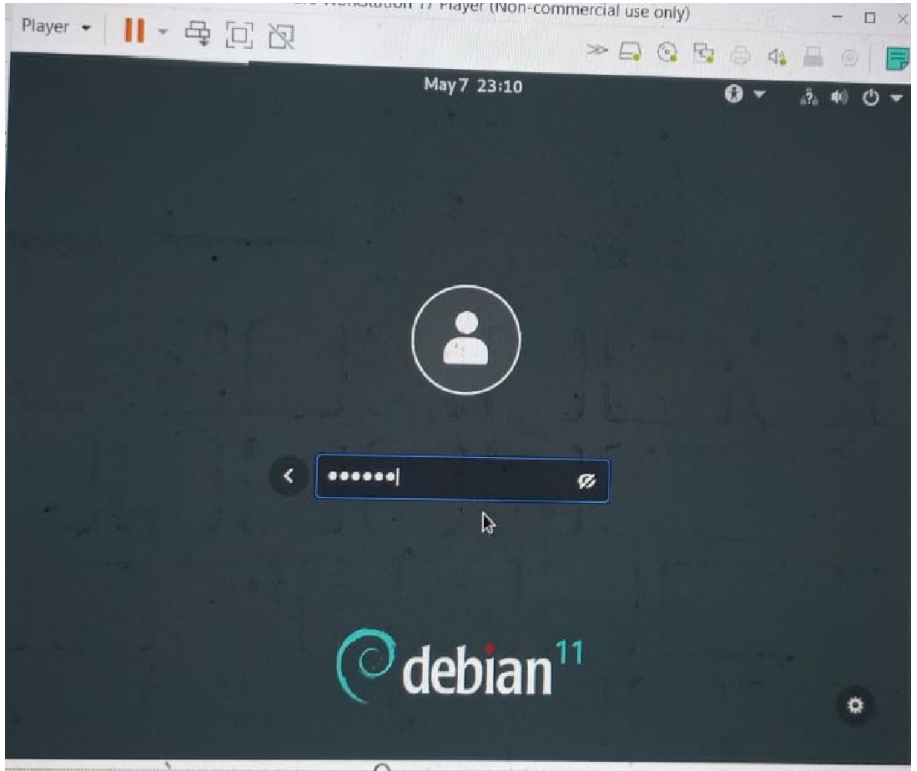
- Sekarang reboot PC-ldap client anda

  #reboot
- Ketika muncul ke screen awal Debian, klik Not listed ?



- Masukkan salah satu user
- Disini dimasukkan arin
- Masukkan password untuk arin

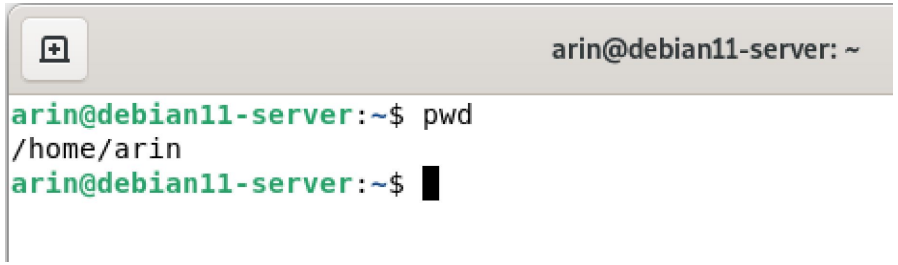




- Ketika berhasil login, maka LDAP client akan membuat directory /home/arin di server
- Buka terminal. Ternyata anda sudah diarahkan ke home directory arin

Ketikkan :

$pwd



Maka akan nampak, anda berada di /home/arin yang berada di server

- Sekarang, ketikkan id dan whoami. Perhatikan hasilnya :

```
arin@debian11-server: ~
arin@debian11-server:~$ id
uid=10002(arin) gid=10002(administrasi) groups=10002(administrasi)
arin@debian11-server:~$ whoami
arin
```

- Coba login sebagai root, install finger

$su – root

#apt install finger

```
arin@debian11-server:~$ su - root
Password:
root@debian11-server:~# apt install finger
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

- Sekarang balik lagi sebagai arin

#su – arin

$finger arin

```
root@debian11-server:~# su - arin
arin@debian11-server:~$ finger arin
Login: arin                             Name: Arin Himura
Directory: /home/arin                   Shell: /bin/bash
On since Sun May  7 23:34 (WIB) on tty3 from tty3
   1 hour 42 minutes idle
No mail.
No Plan.
arin@debian11-server:~$
```

- Anda dapat melihat baik perintah id, whoami dan finger memberikan informasi yang sama seperti waktu kita membuat user arin di LDAP server.
- Ini berarti LDAP client mengambil informasi di LDAP server tentang user arin
- Berpindahlah dari user arin ke user siska

$su – siska

- DAP client akan membuat directory /home/siska di server
- Lakukan beberapa perintah berikut pada user-user lainnya

$pwd

$id

$whoami

$finger

Pustaka

- https://www.linuxbabe.com/debian/set-up-openldap-server-debian
- https://www.howtoforge.com/how-to-install-openldap-server-on-debian-12/
- https://computingforgeeks.com/how-to-configure-ubuntu-as-ldap-client/

https://www.flofaber.com/log/debian-ldap-auth

https://ubuntu.com/server/docs/how-to-set-up-sssd-with-ldap

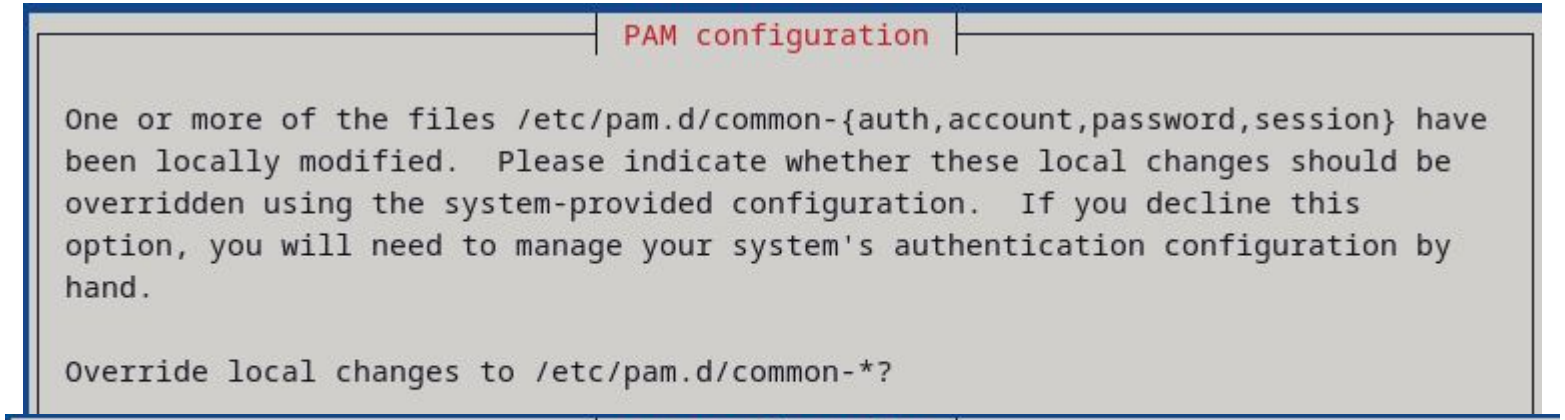
```
Configuring nslcd

Please enter the Uniform Resource Identifier of the LDAP server. The format is
"ldap://<hostname_or_IP_address>:<port>/". Alternatively, "ldaps://" or
"ldapi://" can be used. The port number is optional.

When using an ldap or ldaps scheme it is recommended to use an IP address to
avoid failures when domain name services are unavailable.

Multiple URIs can be separated by spaces.

LDAP server URI:

ldapi:///ldapmaster.fitri.edu

<Ok>                    <Cancel>
```

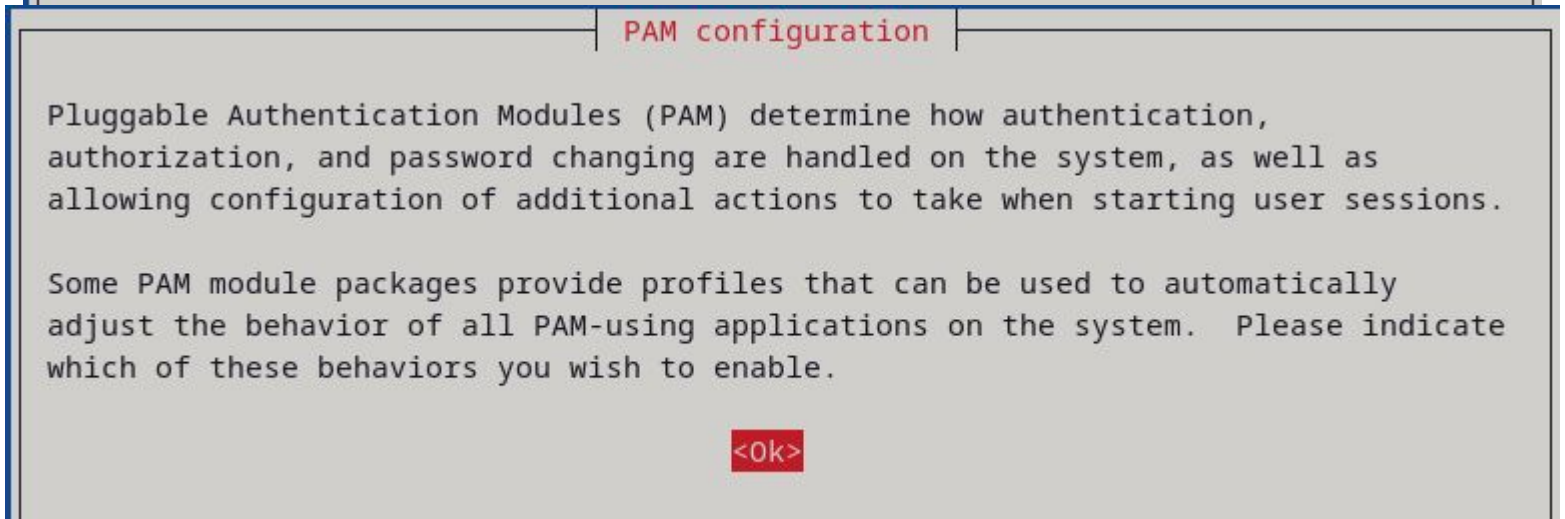
```
Configuring libnss-ldapd

For this package to work, you need to modify the /etc/nsswitch.conf file to use
the ldap datasource.

You can select the services that should have LDAP lookups enabled. The new LDAP
lookups will be added as the last datasource. Be sure to review these changes.

Name services to configure:

[*] passwd
[*] group
[*] shadow
[ ] hosts
[ ] networks
[ ] ethers
```

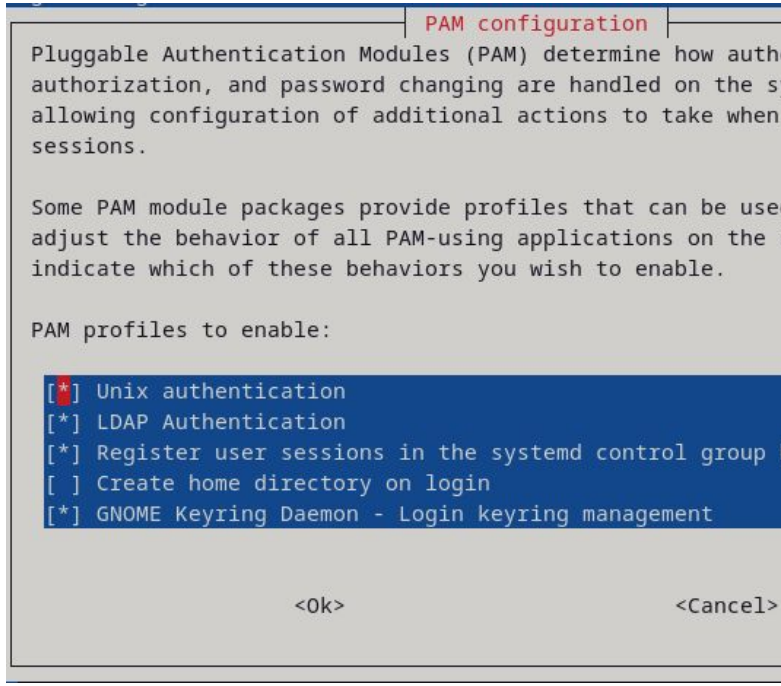
```
Configuring nslcd

Please enter the distinguished name of the LDAP search base. Many sites use the
components of their domain names for this purpose. For example, the domain
"example.net" would use "dc=example,dc=net" as the distinguished name of the
search base.

LDAP server search base:

dc=ldapmaster,dc=fitri,dc=edu

<Ok>                    <Cancel>
```

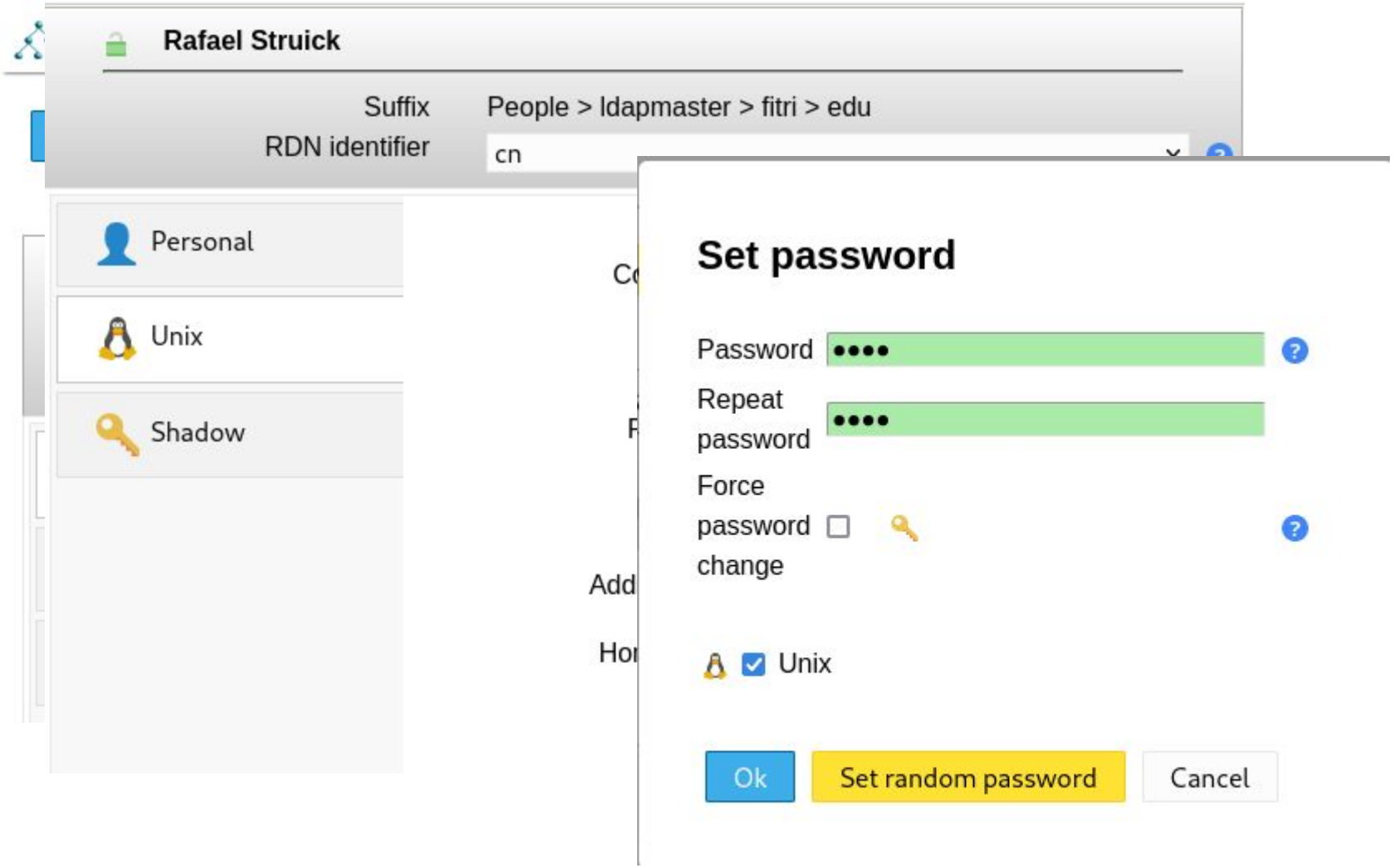
```
Adding system user `nslcd' (UID 115) ...
Adding new group `nslcd' (GID 122) ...
Adding new user `nslcd' (UID 115) with group `nslcd' .
Not creating home directory `/run/nslcd'.
Setting up libpam-ldapd:amd64 (0.9.12-4) ...
Setting up nslcd-utils (0.9.12-4) ...
Setting up libnss-ldapd:amd64 (0.9.12-4) ...
/etc/nsswitch.conf: enable LDAP lookups for group
/etc/nsswitch.conf: enable LDAP lookups for passwd
/etc/nsswitch.conf: enable LDAP lookups for shadow
Processing triggers for man-db (2.11.2-2) ...
Processing triggers for libc-bin (2.36-9+deb12u7) ...
root@debian12:~#
```

#pam-auth-update








Rafael Struick
Suffix
People > ldapmaster > fitri > edu
RDN identifier
cn
Personal
Unix
Shadow
Set password
Password
Repeat password
Force password change
Unix
Ok
Set random password
Cancel

Configuring nslcd

Please enter the Uniform Resource Identifier of the LDAP server. The format is "ldap://<hostname_or_IP_address>:<port>/". Alternatively, "ldaps://" or "ldapi://" can be used. The port number is optional.

When using an ldap or ldaps scheme it is recommended to use an IP address to avoid failures when domain name services are unavailable.

Multiple URIs can be separated by spaces.

LDAP server URI:

ldapi://192.168.220.132

<Ok> <Cancel>

Configuring nslcd

Please choose what type of authentication the LDAP database should require (if any):

* none: no authentication;
* simple: simple bind DN and password authentication;
* SASL: any Simple Authentication and Security Layer mechanism.

Configuring nslcd

Please enter the name of the account that will be used to log in to the LDA database. This value should be specified as a DN (distinguished name).

LDAP database user:

user.ldif

Configuring nslcd

Please enter the distinguished name of the LDAP search b components of their domain names for this purpose. For e "example.net" would use "dc=example,dc=net" as the disti search base.

LDAP server search base:

dc=ldapmaster,dc=fitri,dc=edu

<Ok> <Cancel>

Configuring nslcd

Please enter the password that will be used to log in to the

LDAP user password:

******

Configuring nslcd

Please choose whether the connection to the LDAP server should use Star encrypt the connection.

Use StartTLS?

<Yes> <No>