

LDAP

Deb 1

shuhari@ldap: ~

```
GNU nano 3.2 /etc/hosts
127.0.0.1    localhost
127.0.1.1    ldap.shuharilabs.local    ldap
192.168.80.135 ldap.shuharilabs.local    ldap

# The following lines are desirable for IPv6 capable hosts
::1    localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

shuhari@ldap: ~

```
GNU nano 3.2 /etc/hostname
ldap
```

```
shuhari@ldap:~$ sudo ss -ant
State      Recv-Q    Send-Q    Local Address:Port    Peer Address:Port
LISTEN     0          128       0.0.0.0:22             0.0.0.0:*
ESTAB      0          0          192.168.80.135:22      192.168.80.1:54821
LISTEN     0          128       *:80                   *:80
LISTEN     0          128       [::]:22               [::]:22
shuhari@ldap:~$ sudo ss -anu
State      Recv-Q    Send-Q    Local Address:Port    Peer Address:Port
UNCONN     0          0          0.0.0.0:68             0.0.0.0:*
```

Check 389 LDAP PORT is working or not in above image ldap is not working

```
shuhari@ldap:~$ sudo hostname -d  
shuharilabs.local  
shuhari@ldap:~$ sudo hostname -s  
ldap  
shuhari@ldap:~$ sudo hostname -f  
ldap.shuharilabs.local
```

Sudo apt-get install slapd

Sudo apt-get update

Sudo slpocat

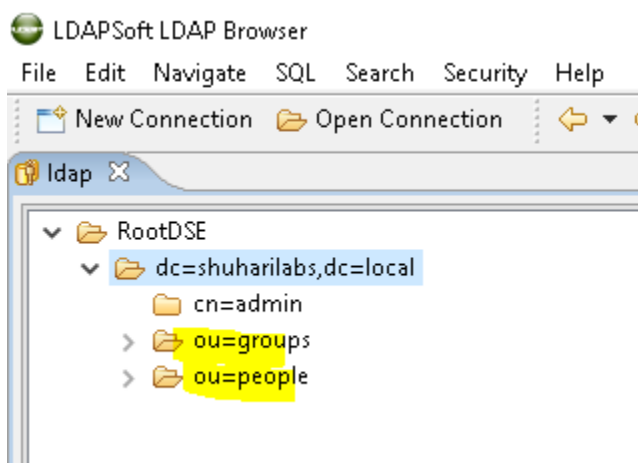
sudo apt-get install ldap-utils

sudo ldapsearch -x -LLL -b "dc = shuharilabs, dc = local"

sudo nano base.ldif

sudo ldapadd -x -D cn=admin,dc=shuharilabs,dc=local -W -f base.ldif

```
shuhari@ldap:~$ sudo cat base.ldif  
dn: ou=people,dc=shuharilabs,dc=local  
objectClass: organizationalUnit  
ou:people  
  
dn: ou=groups,dc=shuharilabs,dc=local  
objectClass: organizationalUnit  
ou:groups  
  
shuhari@ldap:~$ sudo ldapadd -x -D cn=admin,dc=shuharilabs,dc=local -W -f base.ldif
```



```
shuhari@ldap:~$ sudo ldapsearch -x -LLL -b "dc = shuharilabs, dc = local"
dn: dc=shuharilabs,dc=local
objectClass: top
objectClass: dcObject
objectClass: organization
o: shuharilabs.local
dc: shuharilabs

dn: cn=admin,dc=shuharilabs,dc=local
objectClass: simpleSecurityObject
objectClass: organizationalRole
cn: admin
description: LDAP administrator

dn: ou=people,dc=shuharilabs,dc=local
objectClass: organizationalUnit
ou: people

dn: ou=groups,dc=shuharilabs,dc=local
objectClass: organizationalUnit
ou: groups
```

Sudo slappasswd

Sudo nano user.ldif

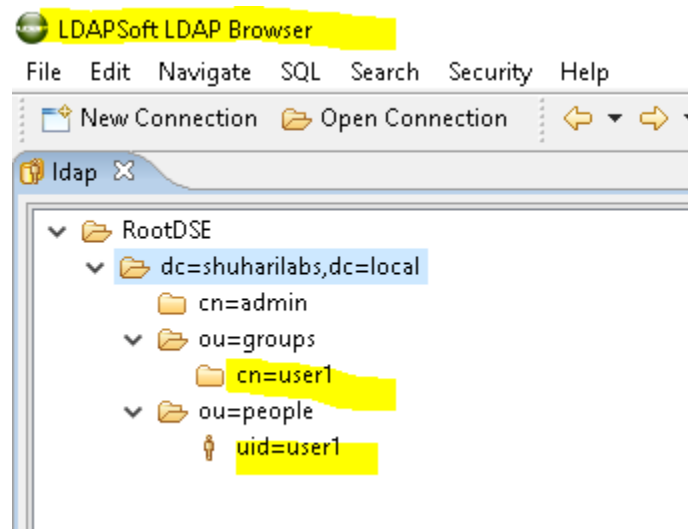
shuhari@ldap: ~

```
GNU nano 3.2 user.ldif

dn: uid=user1,ou=people,dc=shuharilabs,dc=local
objectClass: inetOrgPerson
objectClass: posixAccount
objectClass: shadowAccount
cn: user1
sn: user1
userPassword: {SSHA}XrzuRDNh24zzuRj68rJaFkUOXXL+/OwD
loginShell: /bin/bash
uidNumber: 2000
gidNumber: 2000
homeDirectory: /home/user1

dn: cn=user1,ou=groups,dc=shuharilabs,dc=local
objectClass: posixGroup
cn: user1
gidNumber: 2000
memberUid: user1
```

```
shuhari@ldap:~$ sudo ldapadd -x -D cn=admin,dc=shuharilabs,dc=local -W -f user.ldif
Enter LDAP Password:
adding new entry "uid=user1,ou=people,dc=shuharilabs,dc=local"
```



DEB 2 CLIENT SIDE

```
python@debian:~$ sudo apt-get update
[sudo] password for python:
Hit:1 http://192.168.1.251/sw/repo/deb10 buster InRelease
Reading package lists... Done
python@debian:~$ sudo apt-get install libnss-ldapd
Reading package lists... Done
Building dependency tree
Reading state information... Done
libnss-ldapd is already the newest version (0.9.10-2).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
python@debian:~$ sudo apt-get install libpam-ldapd
Reading package lists... Done
Building dependency tree
Reading state information... Done
libpam-ldapd is already the newest version (0.9.10-2).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
python@debian:~$
```

Mention deb1 ip here (ldap)

shuhari@debian: ~

Package configuration

Configuring nsldc

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:

ldap://192.168.80.135

<Ok> <Cancel>

shuhari@debian: ~

Package configuration

Configuring nsldc

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=shuharilabs,dc=local

<Ok> <Cancel>

```
shuhari@debian: ~  
Package configuration  
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  
[ ] protocols  
[ ] services  
[ ] rpc  
[ ] netgroup  
[ ] aliases  
  
<Ok>
```

Comment the certificate

```
shuhari@debian: ~  
GNU nano 3.2 /etc/nslcd.conf  
  
# The LDAP protocol version to use.  
#ldap_version 3  
  
# The DN to bind with for normal lookups.  
#binddn cn=anonymous,dc=example,dc=net  
#bindpw secret  
  
# The DN used for password modifications by root.  
#rootpwmoddn cn=admin,dc=example,dc=com  
  
# SSL options  
#ssl off  
#tls_reqcert never  
#tls_cacertfile /etc/ssl/certs/ca-certificates.crt  
  
# The search scope.  
#scope sub
```

Check both boxes

Package configuration

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
- ☒ [*] Create home directory on login

<Ok>

<Cancel>

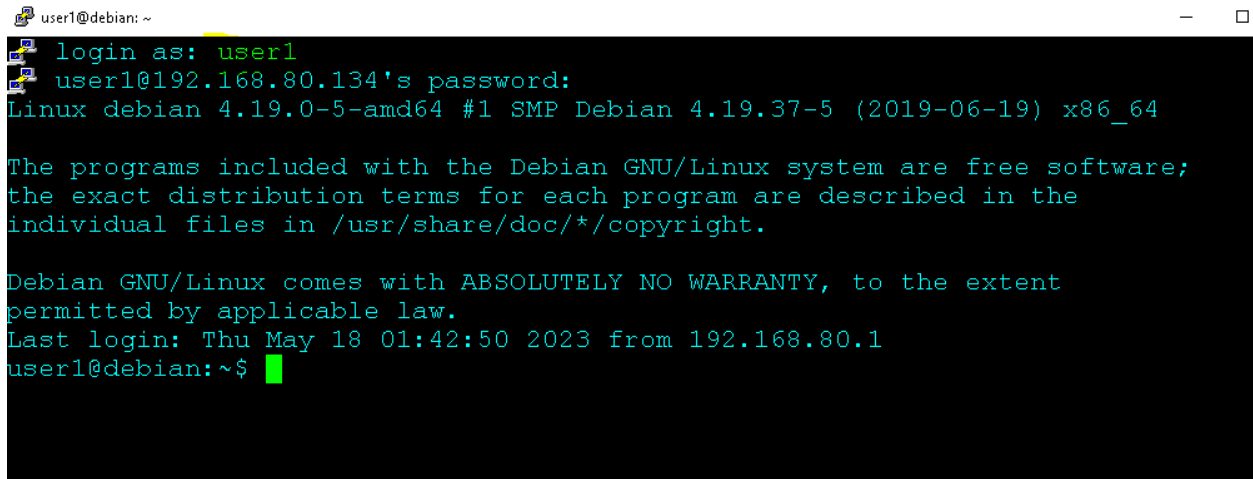
```
shuhari@debian:~$ sudo pam-auth-update
shuhari@debian:~$ sudo systemctl restart nslcd
shuhari@debian:~$ sudo systemctl status nslcd
● nslcd.service - LSB: LDAP connection daemon
   Loaded: loaded (/etc/init.d/nslcd; generated)
   Active: active (running) since Wed 2023-05-17 14:13:20 EDT; 9s ago
     Docs: man:systemd-sysv-generator(8)
  Process: 3781 ExecStart=/etc/init.d/nslcd start (code=exited, status=0/SUCCESS)
    Tasks: 6 (limit: 2352)
   Memory: 1.7M
    CGroup: /system.slice/nslcd.service
            └─3790 /usr/sbin/nslcd

May 17 14:13:20 debian systemd[1]: nslcd.service: Succeeded.
May 17 14:13:20 debian systemd[1]: Stopped LSB: LDAP connection daemon.
May 17 14:13:20 debian systemd[1]: Starting LSB: LDAP connection daemon...
May 17 14:13:20 debian nslcd[3790]: version 0.9.10 starting
May 17 14:13:20 debian nslcd[3790]: accepting connections
May 17 14:13:20 debian nslcd[3781]: Starting LDAP connection daemon: nslcd.
May 17 14:13:20 debian systemd[1]: Started LSB: LDAP connection daemon.
shuhari@debian:~$
```

```
shuhari@debian:~$ sudo getent passwd user1
user1:x:2000:2000:user1:/home/user1:/bin/bash
```

No w

Login through putty of client



```
user1@debian: ~  
login as: user1  
user1@192.168.80.134's password:  
Linux debian 4.19.0-5-amd64 #1 SMP Debian 4.19.37-5 (2019-06-19) x86_64  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
Last login: Thu May 18 01:42:50 2023 from 192.168.80.1  
user1@debian:~$
```