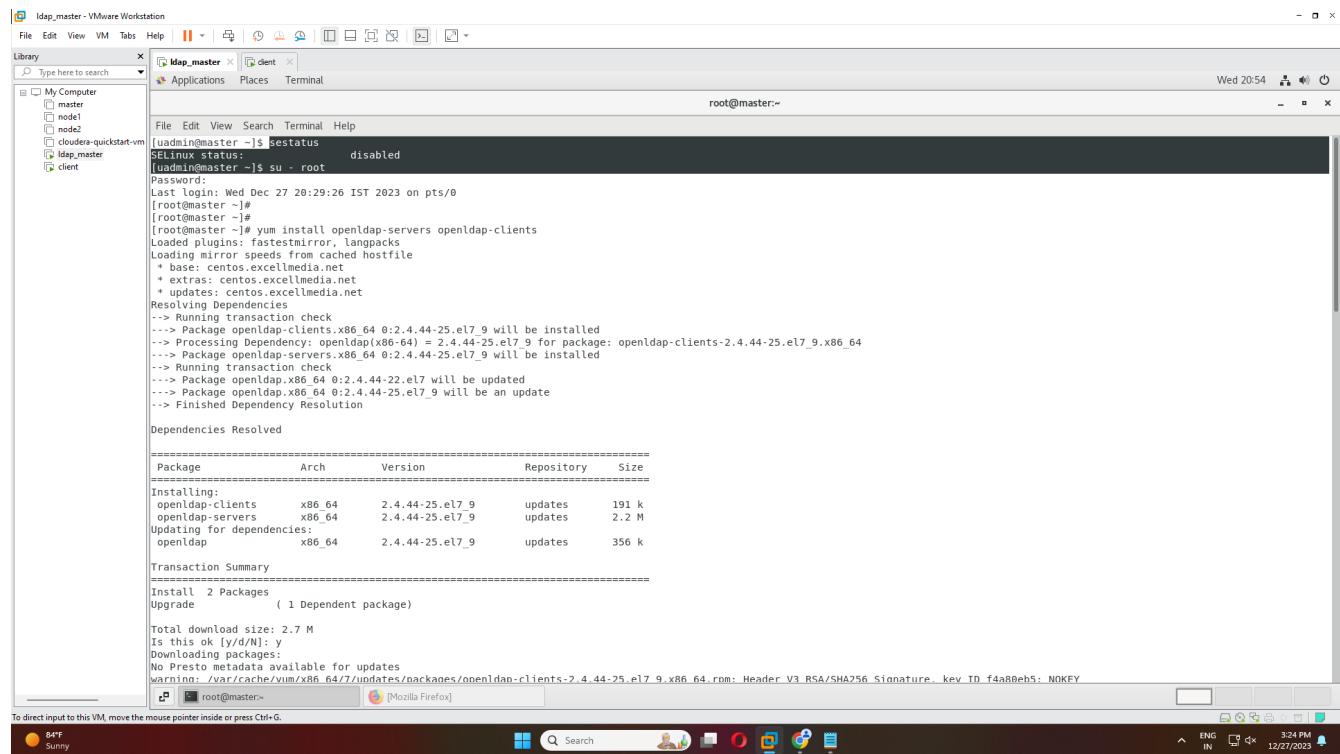


LDAP

First CentOs 7.9 install in VM
firewalld and SeLinux disabled(`vi /etc/selinux/config`) and restart,
`vi /etc/hosts` entry ip and host name,
clone client
both masre and client ping

sestatus (to check selunx disable or not)



```
[root@master ~]$ sestatus
SELinux status:                 disabled
[root@master ~]$ su - root
Password:
Last login: Wed Dec 27 20:29:26 IST 2023 on pts/0
[root@master ~]#
[root@master ~]# yum install openldap-servers openldap-clients
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
 * base: centos.excellimmedia.net
 * extras: centos.excellimmedia.net
 * updates: centos.excellimmedia.net
Resolving Dependencies
--> Running transaction check
--> Package openldap-clients.x86_64 0:2.4.44-25.el7_9 will be installed
--> Processing Dependency: openldap(x86-64) = 2.4.44-25.el7_9 for package: openldap-clients-2.4.44-25.el7_9.x86_64
--> Package openldap-servers.x86_64 0:2.4.44-25.el7_9 will be installed
--> Running transaction check
--> Package openldap.x86_64 0:2.4.44-22.el7 will be updated
--> Package openldap.x86_64 0:2.4.44-25.el7_9 will be an update
--> Finished Dependency Resolution
Dependencies Resolved
=====
Package           Arch      Version       Repository   Size
=====
Installing:
openldap-clients x86_64   2.4.44-25.el7_9   updates      191 k
openldap-servers x86_64   2.4.44-25.el7_9   updates      2.2 M
Updating for dependencies:
openldap          x86_64   2.4.44-25.el7_9   updates      356 k
Transaction Summary
=====
Install  2 Packages
Upgrade   ( 1 Dependent package)

Total download size: 2.7 M
Is this ok [y/d/N]: y
Downloading packages:
No Presto metadata available for updates
warning: /var/cache/yum/x86_64/7/updates/packages/openldap-clients-2.4.44-25.el7_9.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eh5: NOKEY
[root@master ~]
```

yum install openldap-servers openldap-clients

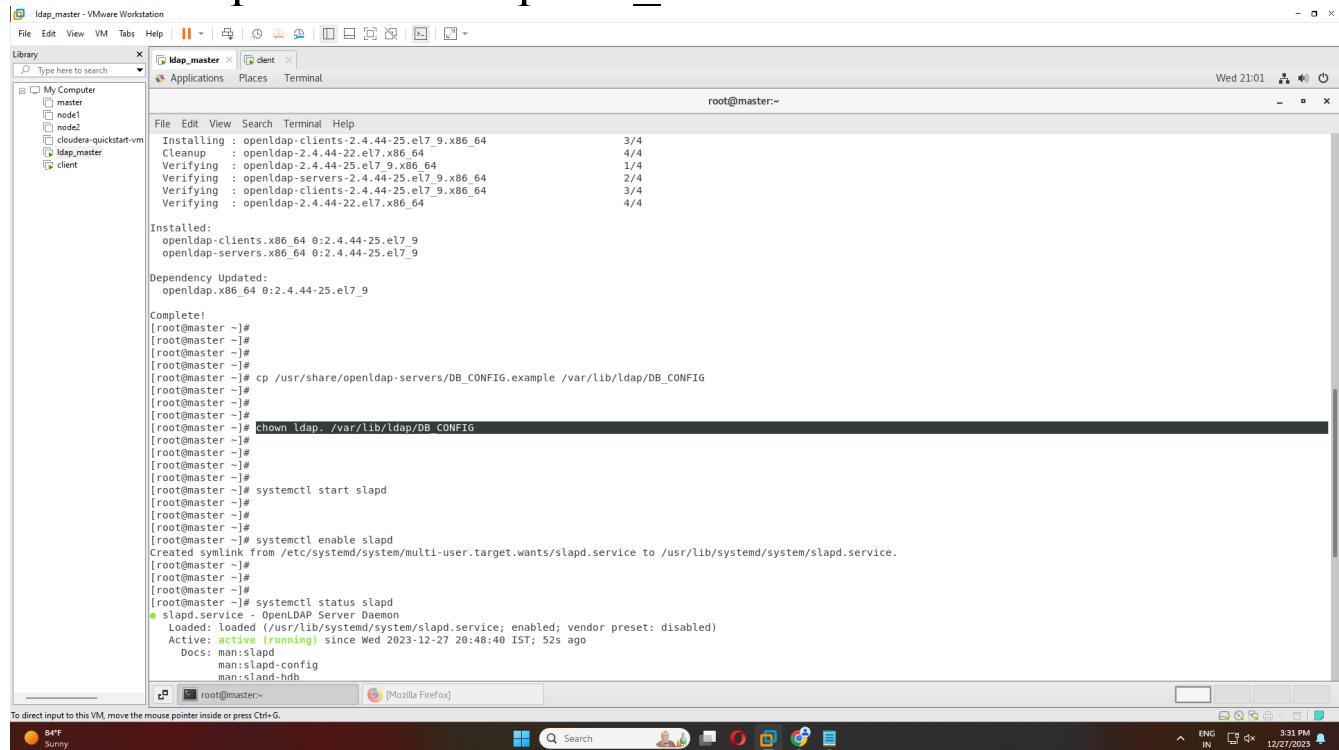
```
[root@master ~]# yum install openldap-servers openldap-clients
[...]
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
 * base: centos.excelmedia.net
 * extras: centos.excelmedia.net
 * updates: centos.excelmedia.net
Resolving Dependencies
--> Running transaction check
--> Package openldap-clients.x86_64 0:2.4.44-25.el7_9 will be installed
--> Processing Dependency: openldap(x86-64) = 2.4.44-25.el7_9 for package: openldap-clients-2.4.44-25.el7_9.x86_64
--> Package openldap-servers.x86_64 0:2.4.44-25.el7_9 will be installed
--> Running transaction check
--> Package openldap.x86_64 0:2.4.44-22.el7 will be updated
--> Package openldap.x86_64 0:2.4.44-25.el7_9 will be an update
--> Finished Dependency Resolution
Dependencies Resolved
=====
Package           Arch      Version       Repository  Size
=====
Installing:
openldap-clients x86_64   2.4.44-25.el7_9   updates     191 k
openldap-servers x86_64   2.4.44-25.el7_9   updates     2.2 M
Updating for dependencies:
openldap          x86_64   2.4.44-25.el7_9   updates     356 k
Transaction Summary
=====
Install  2 Packages
Upgrade  ( 1 Dependent package)

Total download size: 2.7 M
Is this ok [y/N]: y
Downloading packages:
No Presto metadata available for updates
warning: /var/cache/yum/x86_64/7/updates/packages/openldap-clients-2.4.44-25.el7_9.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eh5: NOKEY
[...]
```

cp /usr/share/openldap-servers/DB_CONFIG.example
/var/lib/ldap/DB_CONFIG

```
[root@master ~]# cp /usr/share/openldap-servers/DB_CONFIG.example /var/lib/ldap/DB_CONFIG
[...]
Complete!
[root@master ~]# chown ldap: /var/lib/ldap/DB_CONFIG
[...]
[root@master ~]# systemctl start slapd
[...]
[root@master ~]# systemctl enable slapd
Created symlink from /etc/systemd/system/multi-user.target.wants/slapd.service to /usr/lib/systemd/system/slapd.service.
[...]
[root@master ~]# systemctl status slapd
● slapd.service - OpenLDAP Server Daemon
  Loaded: loaded (/usr/lib/systemd/system/slapd.service; enabled; vendor preset: disabled)
  Active: active (running) since Wed 2023-12-27 20:48:40 IST; 52s ago
    Docs: man:slapd(8)
          man:slapd-config(8)
          man:slapd-hdb(8)
          man:slapd-mdb(8)
          file:///usr/share/doc/openldap-servers/online.html
[...]
```

chown ldap. /var/lib/ldap/DB_CONFIG



```
File Edit View Terminal Help
root@master:~#
Install : openldap-clients-2.4.44-25.el7.x86_64 3/4
Cleanup : openldap-2.4.44-22.el7.x86_64 4/4
Verifying : openldap-2.4.44-25.el7.x86_64 1/4
Verifying : openldap-servers-2.4.44-25.el7.x86_64 2/4
Verifying : openldap-clients-2.4.44-25.el7.x86_64 3/4
Verifying : openldap-2.4.44-22.el7.x86_64 4/4

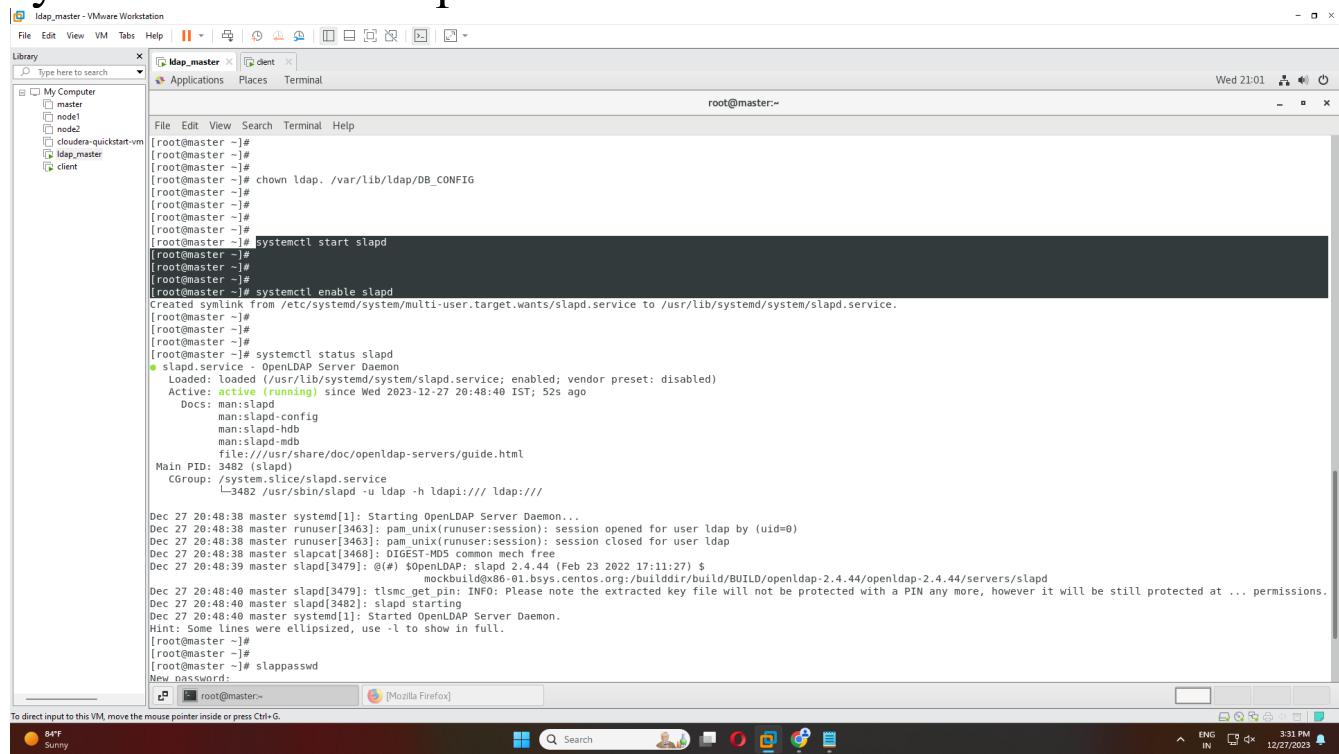
Installed:
openldap-clients.x86_64 0:2.4.44-25.el7_9
openldap-servers.x86_64 0:2.4.44-25.el7_9

Dependency Updated:
openldap.x86_64 0:2.4.44-25.el7_9

Completed!
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# cp /usr/share/openldap-servers/DB_CONFIG.example /var/lib/ldap/DB_CONFIG
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# chown ldap. /var/lib/ldap/DB_CONFIG
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# systemctl start slapd
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# systemctl enable slapd
Created symlink from /etc/systemd/system/multi-user.target.wants/slapd.service to /usr/lib/systemd/system/slapd.service.
[root@master ~]#
[root@master ~]#
[root@master ~]# systemctl status slapd
● slapd.service - OpenLDAP Server Daemon
   Loaded: loaded (/usr/lib/systemd/system/slapd.service; enabled; vendor preset: disabled)
     Active: active (running) since Wed 2023-12-27 20:48:40 IST; 52s ago
       Docs: man:slapd(8)
              man:slapd-config(8)
              man:slapd-hdb(8)
              man:slapd-mdb(8)
              file:///usr/share/doc/openldap-servers/guide.html
 Main PID: 3482 (slapd)
    CGroup: /system.slice/slapd.service
           └─3482 /usr/sbin/slapd -u ldap -l ldap://:389

Dec 27 20:48:38 master systemd[1]: Starting OpenLDAP Server Daemon...
Dec 27 20:48:38 master slapd[3483]: pam_unix(slurp:session): session opened for user ldap by (uid=0)
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session closed for user ldap
Dec 27 20:48:38 master slapcat[3469]: DIGEST-MD5 compression mech
Dec 27 20:48:39 master slapd[3479]: (@#) $OpenLDAP: slapd 2.4.44 (Feb 23 2022 17:11:27) $
Dec 27 20:48:40 master slapd[3479]: tismc_getpin: INFO: Please note the extracted key file will not be protected with a PIN any more, however it will be still protected at ... permissions.
Dec 27 20:48:40 master slapd[3482]: slapd starting
Dec 27 20:48:40 master systemd[1]: Started OpenLDAP Server Daemon.
Hint: Some lines were ellipsized, use -l to show in full.
[root@master ~]#
[root@master ~]#
[root@master ~]# slappasswd
New password:
```

systemctl start slapd systemctl enable slapd



```
File Edit View Terminal Help
root@master:~#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# chown ldap. /var/lib/ldap/DB_CONFIG
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# systemctl start slapd
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# systemctl enable slapd
Created symlink from /etc/systemd/system/multi-user.target.wants/slapd.service to /usr/lib/systemd/system/slapd.service.
[root@master ~]#
[root@master ~]#
[root@master ~]# systemctl status slapd
● slapd.service - OpenLDAP Server Daemon
   Loaded: loaded (/usr/lib/systemd/system/slapd.service; enabled; vendor preset: disabled)
     Active: active (running) since Wed 2023-12-27 20:48:40 IST; 52s ago
       Docs: man:slapd(8)
              man:slapd-config(8)
              man:slapd-hdb(8)
              man:slapd-mdb(8)
              file:///usr/share/doc/openldap-servers/guide.html
 Main PID: 3482 (slapd)
    CGroup: /system.slice/slapd.service
           └─3482 /usr/sbin/slapd -u ldap -l ldap://:389

Dec 27 20:48:38 master systemd[1]: Starting OpenLDAP Server Daemon...
Dec 27 20:48:38 master slapd[3483]: pam_unix(slurp:session): session opened for user ldap by (uid=0)
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session closed for user ldap
Dec 27 20:48:38 master slapcat[3469]: DIGEST-MD5 compression mech
Dec 27 20:48:39 master slapd[3479]: (@#) $OpenLDAP: slapd 2.4.44 (Feb 23 2022 17:11:27) $
Dec 27 20:48:40 master slapd[3479]: tismc_getpin: INFO: Please note the extracted key file will not be protected with a PIN any more, however it will be still protected at ... permissions.
Dec 27 20:48:40 master slapd[3482]: slapd starting
Dec 27 20:48:40 master systemd[1]: Started OpenLDAP Server Daemon.
Hint: Some lines were ellipsized, use -l to show in full.
[root@master ~]#
[root@master ~]#
[root@master ~]# slappasswd
New password:
```

```
systemctl status slapd
```

File Edit View VM Tabs Help Applications Places Terminal root@master:~

```
[root@master ~]# [root@master ~]# systemctl enable slapd
Created symlink from /etc/systemd/system/multi-user.target.wants/slapd.service to /usr/lib/systemd/system/slapd.service.
[root@master ~]# [root@master ~]# [root@master ~]#
[root@master ~]# systemctl status slapd
● slapd.service - OpenLDAP Server Daemon
   Loaded: loaded (/usr/lib/systemd/system/slapd.service; enabled; vendor preset: disabled)
     Active: active (running) since Wed 2023-12-27 20:40:40 IST; 52s ago
       Docs: man:slapd(8)
             man:slapd-config(8)
             man:slapd-hdb(8)
             man:slapd-mdb(8)
             file:///usr/share/doc/openldap-servers/guide.html
      Main PID: 3482 (slapd)
        CGroup: /system.slice/slapd.service
               ↳ 3482 /usr/sbin/slapd -u ldap -h ldapi:// ldapi://

Dec 27 20:48:38 master systemd[1]: Starting OpenLDAP Server Daemon...
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session opened for user ldap by (uid=0)
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session closed for user ldap
Dec 27 20:48:38 master slapcat[3468]: DIGEST-MD5 common mech free
Dec 27 20:48:39 master slapd[3479]: (@@) $OPENLDAP: slapd 2.4.46 (Feb 23 2022 17:11:27) $ mockbuild@x86-01.bsys.centos.org:/builddir/build/BUILD/openldap-2.4.44/openldap-2.4.44/servers/slapd
Dec 27 20:48:40 master slapd[3479]: tlsmc_get_pin: INFO: Please note the extracted key file will not be protected with a PIN any more, however it will be still protected at ... permissions.
Dec 27 20:48:40 master slapd[3482]: slapd starting
Dec 27 20:48:40 master systemd[1]: Started OpenLDAP Server Daemon.
Hint: Some lines were ellipsized, use -l to show in full.
[root@master ~]# [root@master ~]# [root@master ~]# slappasswd
New password:
Re-enter new password:
($SHA)twB0/+81ld6puASB5tYpGhgdbAyJH
[root@master ~]# [root@master ~]# [root@master ~]# vi chrootpw.ldif
[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]#
```

slappasswd

ldap_master - VMware Workstation

File Edit View VM Tabs Help

Library x Type here to search

Applications Places Terminal

root@master:~

```
man:slapd-config
man:slapd-hdb
man:slapd-lmdb
file:///usr/share/doc/openldap-servers/guide.html
Main PID: 3482 (slapd)
CGroup: /system.slice/slapd.service
└─3482 /usr/sbin/slapd -u ldap -h ldapi:// ldapi:// ldap://

Dec 27 20:48:38 master systemd[1]: Starting OpenLDAP Server Daemon...
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session opened for user ldap by (uid=0)
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session closed for user ldap
Dec 27 20:48:38 master slapcat[3468]: DIGEST-MD5 common mech free
Dec 27 20:48:39 master slapd[3479]: @(#) $OpenLDAP: slapd 2.4.46 (Feb 23 2022 17:11:27) $
[root@master ~]# ./mkcertificatetest
[root@master ~]# ./mkcertificatetest
Dec 27 20:48:40 master slapd[3479]: tlmc_get_pin(): INFO: Please note the extracted key file will not be protected with a PIN any more, however it will be still protected at ... permissions.
Dec 27 20:48:40 master slapd[3479]: slapd starting
Dec 27 20:48:40 master systemd[1]: Started OpenLDAP Server Daemon.
Hint: Some lines were ellipsized, use -l to show in full.
[root@master ~]#
[root@master ~]#
[root@master ~]# slappasswd
New password:
Re-enter new password:
{SSHAT1WB0+/+3141ddpuASB5tYpGhgdbAyJH
[root@master ~]#
[root@master ~]#
[root@master ~]# vi chrootpw.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f chrootpw.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+idNumber=0,ou=peercred,cn=external,cn=auth
SASL SSF: 0
[root@master ~]# vi chrootpw.ldif
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f chrootpw.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+idNumber=0,ou=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "o1cDatabase={0}config,cn=config"
[root@master ~]#
```

root@master:~

[Mozilla Firefox]

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

vi chrootpw.ldif

Idap_master - VMware Workstation

File Edit View VM Tabs Help || Library Applications Places Terminal

root@master:~#

```
man|slapd-config
man|slapd-hdb
man|slapd-mdb
file:///usr/share/doc/openldap-servers/guide.html
Main PID: 3482 (slapd)
CGROUP: /system.slice/slapd.service
└─3482 /usr/sbin/slapd -u ldap -h ldapi:// ldapi:// ldap://

Dec 27 20:48:38 master systemd[1]: Starting OpenLDAP Server Daemon...
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session opened for user ldap by (uid=0)
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session closed for user ldap
Dec 27 20:48:38 master slapcat[3468]: DIGEST-MD5 common password from file
Dec 27 20:48:39 master slapd[3479]: (#@) $openLDAP$: slapd 2.4.44 (Feb 23 2022 17:11:27) $
                                         mockbuild@x86-01.bsys.centos.org:builddir/build/BUILD/openldap-2.4.44/openldap-2.4.44/servers/slapd
Dec 27 20:48:40 master slapd[3479]: tlsmc_get_pin: INFO: Please note the extracted key file will not be protected with a PIN any more, however it will be still protected at ... permissions.
Dec 27 20:48:40 master slapd[3482]: slapd starting
Dec 27 20:48:40 master systemd[1]: Started OpenLDAP Server Daemon.
Hint: Some lines were ellipsized, use -l to show in full.
[root@master ~]#
[root@master ~]#
[root@master ~]# slappasswd
New password:
Re-enter new password:
(SSH1)twB0/+8141dd6puASB5tpGhgbyAyJH
[root@master ~]#
[root@master ~]#
[root@master ~]# vi chrootpw.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:// -f chrootpw.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+idNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
[root@master ~]# vi chrootpw.ldif
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:// -f chrootpw.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+idNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "olcDatabase={0}config,cn=config"
[root@master ~]#
```

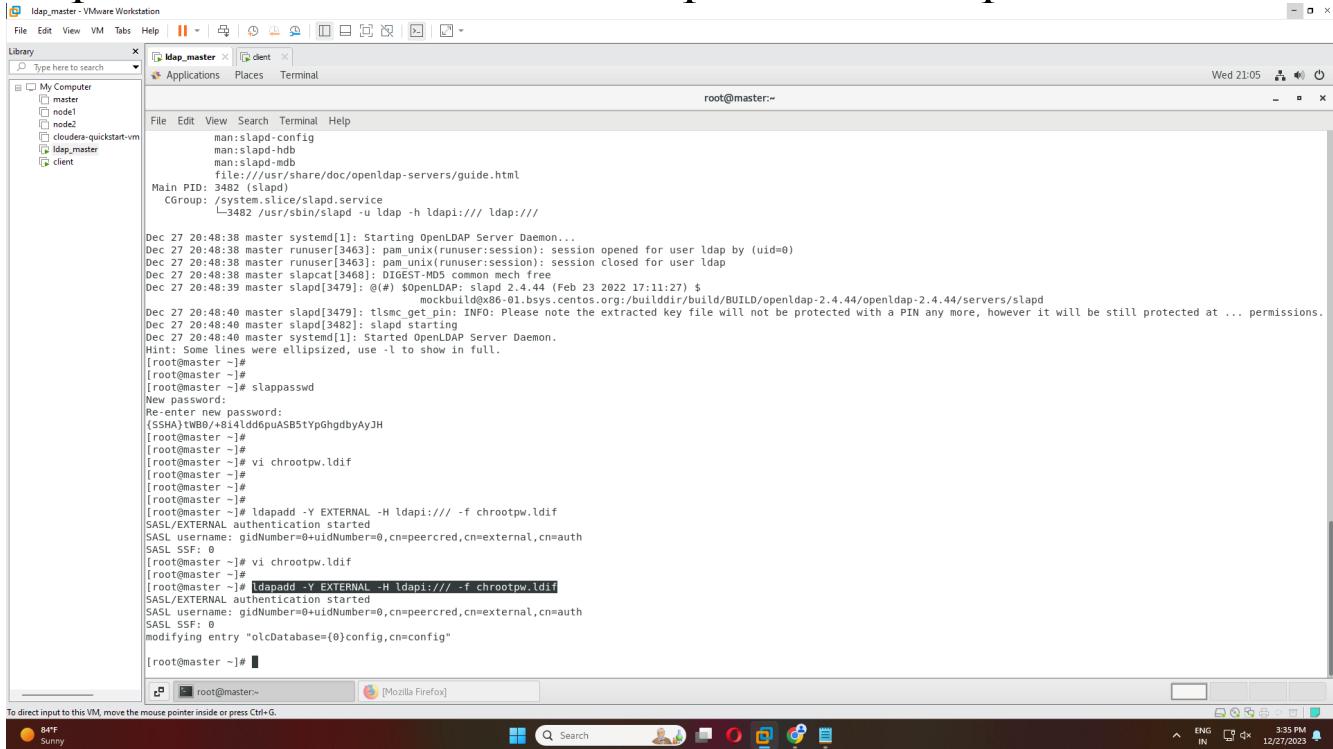
root@master:~# [Mozilla Firefox]

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

```
dn: olcDatabase={0}config,cn=config
changetype: modify
add: olcRootPW
olcRootPW:
{SSHA}tWB0/+8i4lld6puASB5tYpGhgdbAyJH
```

```
File Edit View VM Tabs Help || Type here to search Library Map_master client Applications Places Terminal root@master:~ dn: olcDatabase={0}config,cn=config changetype: modify add: olcRootPW olcRootPW: {SSHA}tWB0/+814l0d6puASB5tYpGhgdbAyJH "chrootpw.ldif" 4L 120C
```

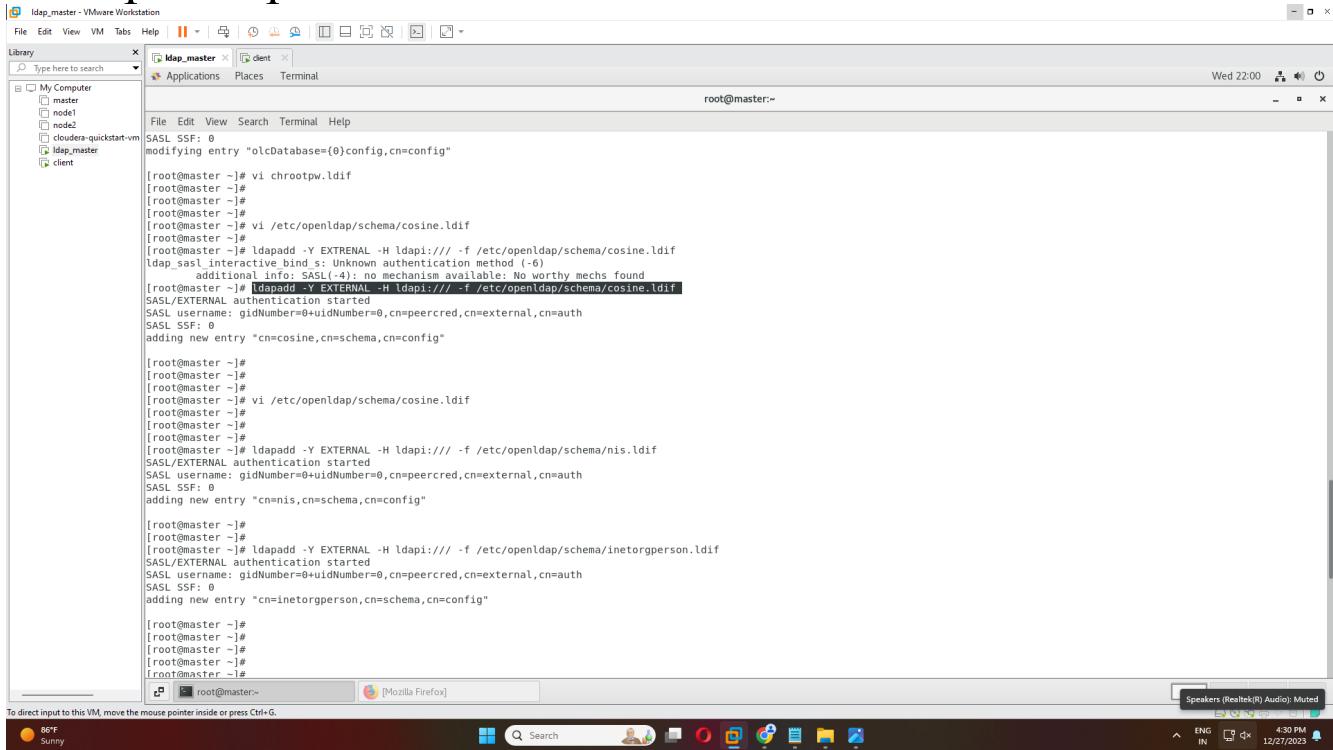
ldapadd -Y EXTERNAL -H ldapi:/// -f chrootpw.ldif



```
File Edit View Terminal Help
man:slapd-config
man:slapd-hdb
man:slapd-mdb
file:///usr/share/doc/openldap-servers/guide.html
Main PID: 3482 (slapd)
Cgroup: /system.slice/slapd.service
└─3482 /usr/sbin/slapd -u ldap -h ldapi:/// ldap:///

Dec 27 20:48:38 master systemd[1]: Starting OpenLDAP Server Daemon...
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session opened for user ldap by (uid=0)
Dec 27 20:48:38 master runuser[3463]: pam_unix(runuser:session): session closed for user ldap
Dec 27 20:48:38 master slapcat[3468]: DIGEST-MD5 common mech free
Dec 27 20:48:39 master slapd[3479]: @(#) $OpenLDAP: slapd 2.4.44 (Feb 23 2022 17:11:27) $
Dec 27 20:48:40 master slapd[3479]: tismc get pin: INFO Please note the extracted key file will not be protected with a PIN any more, however it will be still protected at ... permissions.
Dec 27 20:48:40 master slapd[3482]: slapd starting
Dec 27 20:48:40 master systemd[1]: Started OpenLDAP Server Daemon.
Hint: Some lines were ellipsized, use -l to show in full.
[root@master ~]#
[root@master ~]#
[root@master ~]# slappasswd
New password:
Re-enter new password:
(SSHA)tWB0/+814lddpupASB5tYpGhgbyAyJH
[root@master ~]#
[root@master ~]#
[root@master ~]# vi chrootpw.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f chrootpw.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL cred: 0
SASL SSF: 0
[root@master ~]# vi chrootpw.ldif
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f chrootpw.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL cred: 0
modifying entry "olcDatabase={0}config,cn=config"
[root@master ~]#
```

ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/cosine.ldif



```
File Edit View Terminal Help
SASL SSF: 0
modifying entry "olcDatabase={0}config,cn=config"
[root@master ~]# vi chrootpw.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]# vi /etc/openldap/schema/cosine.ldif
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/cosine.ldif
ldap_sasl_interactive_bind_s: Unknown authentication method (-6)
additional info: SASL(-4): no mechanism available: No worthy mechs found
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/cosine.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL cred: 0
adding new entry "cn=cosine,cn=schema,cn=config"
[root@master ~]#
[root@master ~]#
[root@master ~]# vi /etc/openldap/schema/cosine.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/cosine.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL cred: 0
adding new entry "cn=cosine,cn=schema,cn=config"
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/inetorgperson.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL cred: 0
adding new entry "cn=inetorgperson,cn=schema,cn=config"
[root@master ~]#
[root@master ~]#
[root@master ~]#
```

ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/nis.ldif

```
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/cosine.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
adding new entry "cn=cosine,cn=schema,cn=config"

[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/nis.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
adding new entry "cn=nis,cn=schema,cn=config"

[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/inetorgperson.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
adding new entry "cn=inetorgperson,cn=schema,cn=config"

[root@master ~]# vi chdomain.ldif
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f chdomain.ldif
SASL/EXTERNAL authentication started
```

ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/inetorgperson.ldif

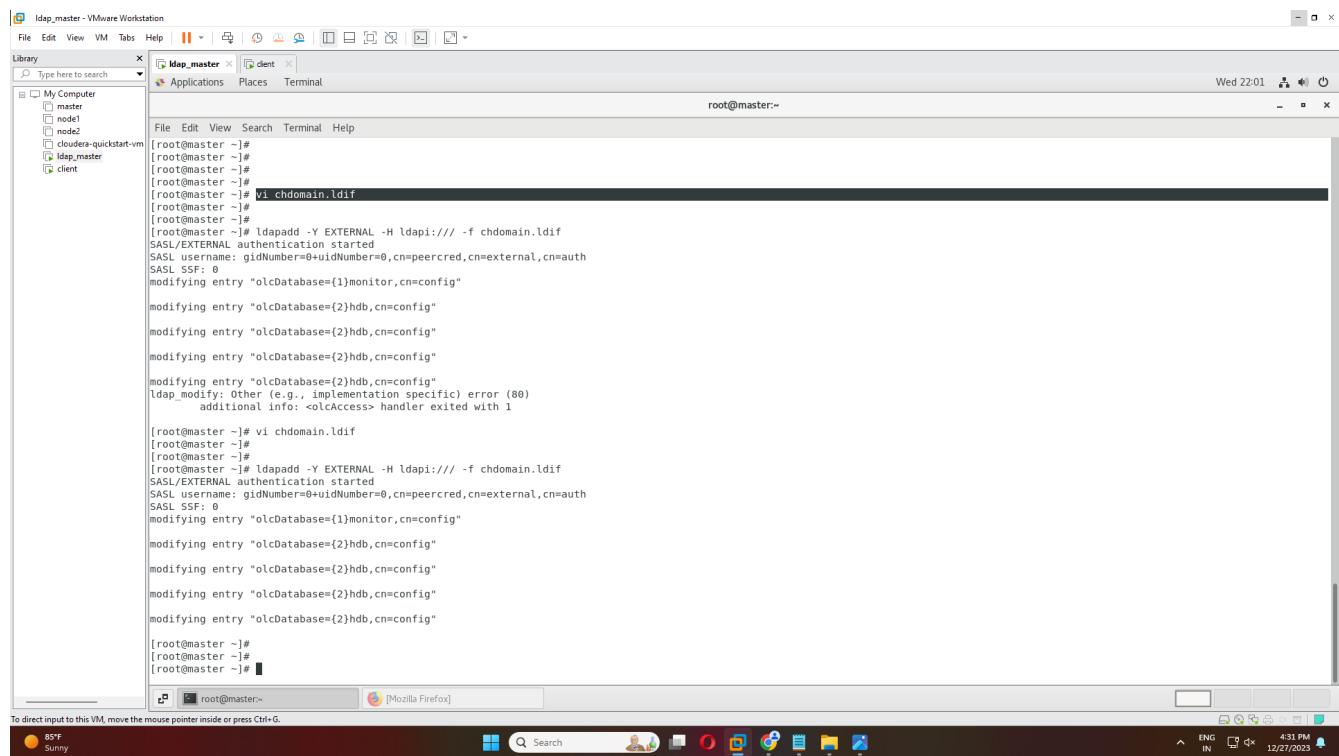
```
[root@master ~]# vi /etc/openldap/schema/cosine.ldif
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/nis.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
adding new entry "cn=nis,cn=schema,cn=config"

[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/openldap/schema/inetorgperson.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
adding new entry "cn=inetorgperson,cn=schema,cn=config"

[root@master ~]# vi chdomain.ldif
[root@master ~]# ldapadd -Y EXTERNAL -H ldapi:/// -f chdomain.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "olcDatabase=(1)monitor,cn=config"
modifying entry "olcDatabase=(2)hdb,cn=config"
modifying entry "olcDatabase=(2)hdb,cn=config"
modifying entry "olcDatabase=(2)hdb,cn=config"
modifying entry "olcDatabase=(2)hdb,cn=config"
ldap_modify: Other (e.g., implementation specific) error (80)
additional info: <olcAccess> handler exited with 1

[root@master ~]# vi chdomain.ldif
```

vi chdomain.ldif



```
[root@master ~]# vi chdomain.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# vi chdomain.ldif
[root@master ~]# ldapadd -Y EXTERNAL -H ldap:// -f chdomain.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "olcDatabase={1}monitor,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
ldap_modify: Other (e.g., implementation specific) error (80)
        additional info: <olcAccess> handler exited with 1
[root@master ~]# vi chdomain.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -Y EXTERNAL -H ldap:// -f chdomain.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "olcDatabase={1}monitor,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
modifying entry "olcDatabase={2}hdb,cn=config"
[root@master ~]#
[root@master ~]#
[root@master ~]#
```

dn: olcDatabase={1}monitor,cn=config
changetype: modify
replace: olcAccess
olcAccess: {0}to * by
dn.base="gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth"
read by dn.base="cn=Manager,dc=cdac,dc=in" read by *
none

dn: olcDatabase={2}hdb,cn=config
changetype: modify
replace: olcSuffix
olcSuffix: dc=cdac,dc=in

dn: olcDatabase={2}hdb,cn=config
changetype: modify
replace: olcRootDN
olcRootDN: cn=Manager,dc=cdac,dc=in

dn: olcDatabase={2}hdb,cn=config
changetype: modify
replace: olcRootPW
olcRootPW:
{SSHA}tWB0/+8i4lhd6puASB5tYpGhgdbAyJH

dn: olcDatabase={2}hdb,cn=config
changetype: modify
add: olcAccess
olcAccess: {0}to attrs=userPassword,shadowLastChange by
dn="cn=Manager,dc=cdac,dc=in" write by anonymous auth
by self write by * none
olcAccess: {1}to dn.base="" by * read
olcAccess: {2}to * by dn="cn=Manager,dc=cdac,dc=in" write
by * read

```
ldapadd -Y EXTERNAL -H ldapi:/// -f chdomain.ldif
```

ldap_master - VMware Workstation

File Edit View VM Tabs Help || Applications Places Terminal

root@master:~# vi chdomain.ldif

[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# ldapadd -Y EXTERNAL -H ldap:// -f chdomain.ldif

SASL/EXTERNAL authentication started

SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth

SASL SSF: 0

modifying entry "olcDatabase={1}monitor,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

ldap_modify: Other (e.g., implementation specific) error (80)

additional info: <olcAccess> handler exited with 1

[root@master ~]# vi chdomain.ldif

[root@master ~]# [root@master ~]# [root@master ~]# ldapadd -Y EXTERNAL -H ldap:// -f chdomain.ldif

SASL/EXTERNAL authentication started

SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth

SASL SSF: 0

modifying entry "olcDatabase={1}monitor,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

modifying entry "olcDatabase={2}hdb,cn=config"

[root@master ~]# [root@master ~]# [root@master ~]# vi chdomain.ldif

[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]#

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

85° Sunny ENG IN 4:32 PM 12/27/2023

vi basedomain.ldif

The screenshot shows a terminal window titled "ldap_master" running on a Linux system. The terminal displays the process of creating a new LDAP base domain named "basedomain". The steps include modifying existing configuration entries, creating a new LDIF file ("basedomain.ldif"), and then adding the contents of this file to the LDAP database using "ldapadd". The terminal session is as follows:

```
modifying entry "olcDatabase=(2)hdb,cn=config"
modifying entry "olcDatabase=(2)hdb,cn=config"
modifying entry "olcDatabase=(2)hdb,cn=config"

[root@master ~]# [root@master ~]# vi chdomain.ldif
[root@master ~]# [root@master ~]# [root@master ~]#
[root@master ~]# [root@master ~]# [root@master ~]# vi basedomain.ldif
[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f basedomain.ldif
basedomain.ldif: No such file or directory
[root@master ~]# vi basedomain.ldif
[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# vi basedomain.ldif
[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f basedomain.ldif
Enter LDAP Password:
adding new entry "cn=Manager,dc=cdac,dc=in"
ldap_add: No such object (32)

[root@master ~]# vi basedomain.ldif
[root@master ~]# [root@master ~]# [root@master ~]# [root@master ~]# ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f basedomain.ldif
Enter LDAP Password:
adding new entry "dc=cdac,dc=in"
adding new entry "cn=Manager,dc=cdac,dc=in"
adding new entry "ou=People,dc=cdac,dc=in"
adding new entry "ou=Group,dc=cdac,dc=in"

[root@master ~]#
```

dn: dc=cdac,dc=in
objectClass: top
objectClass: dcObject
objectclass: organization
o: cdac in
dc: cdac

dn: cn=Manager,dc=cdac,dc=in
objectClass: organizationalRole
cn: Manager
description: Directory Manager

dn: ou=People,dc=cdac,dc=in
objectClass: organizationalUnit
ou: People

dn: ou=Group,dc=cdac,dc=in
objectClass: organizationalUnit
ou: Group

```
ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f  
basedomain.ldif
```

vi ldapuser.ldif

```
ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f ldapuser.ldif
```

ldap_master - VMware Workstation

File Edit View VM Help | [client] | Applications Places Terminal

Library Type here to search

My Computer master node1 node2 cloudera-quickstart-vn ldap_master client

root@master:~# ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f basedomain.ldif
Enter LDAP Password:
adding new entry "cn=Manager,dc=cdac,dc=in"
ldap_add: No such object (32)

[root@master ~]# vi basedomain.ldif
[root@master ~]#
[root@master ~]#
[root@master ~]# ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f basedomain.ldif
Enter LDAP Password:
adding new entry "dc=cdac,dc=in"
adding new entry "cn=Manager,dc=cdac,dc=in"
adding new entry "ou=People,dc=cdac,dc=in"
adding new entry "ou=Group,dc=cdac,dc=in"
adding new entry "ou=Cent,dc=cdac,dc=in"
adding new entry "uid=cent,ou=People,dc=cdac,dc=in"
adding new entry "cn=cent,ou=Group,dc=cdac,dc=in"

[root@master ~]#

83°F Mostly sunny

root@master:~# [Mozilla Firefox]

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

dn: uid=cent,ou=People,dc=cdac,dc=in
objectClass: inetOrgPerson
objectClass: posixAccount
objectClass: shadowAccount
cn: Cent
sn: Linux
userPassword:
{SSHA}tWB0/+8i4l^dd6puASB5tYpGhgdbAyJH
LoginShell: /bin/bash
uidNumber: 1000
gidNumber: 1000
homeDirectory: /home/cent

dn: cn=cent,ou=Group,dc=cdac,dc=in
objectClass: posixGroup
cn: Cent
gidNumber: 1000

~

ldap_master - VMware Workstation

File Edit View VM Tabs Help

Library Type here to search

Applications Places Terminal

root@master:~

```
File Edit View Search Terminal Help
dn: uid=cent,ou=People,dc=cdac,dc=in
objectClass: inetOrgPerson
objectClass: posixAccount
objectClass: shadowAccount
cn: Cent
sn: Linux
userPassword: {SSHA}tWB0/+B14ldd6puASB5tYpGhgdbAyJH
LoginShell: /bin/bash
uidNumber: 1000
gidNumber: 1000
homeDirectory: /home/cent

dn: cn=cent,ou=Group,dc=cdac,dc=in
objectClass: posixGroup
cn: Cent
gidNumber: 1000

```
ldapuser.ldif 16L, 354C
```

root@master:> [Mozilla Firefox]

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

83°F Mostly sunny ENG IN 5:48 PM 12/27/2023

if previous user exit then user delete  
exit to user

**userdel uadmin**

```
ldapdelete -x -W -D 'cn=Manager,dc=cdac,dc=in'
"uid=cent,ou=people,dc=cdac,dc=in"
(for delet)
```

```
ldapadd -x -D cn=Manager,dc=cdac,dc=in -W -f ldapuser.ldif
(again add)
```

in Client

systemctl status firewalld.service

systemctl stop firewalld.service

vi /etc/selinux/config

yum install openldap-clients nss-pam-ldapd

authconfig --enableldap --enableldapauth  
--ldapserver=192.168.147.153 --ldapbasedn="dc=cdac,dc=in"  
--enablemkhomedir –update

systemctl status ns lcd

systemctl start ns lcd

systemctl status ns lcd

su – cent

ldapdelete -x -W -D 'cn=Manager,dc=cdac,dc=in'  
"uid=cent,ou=people,dc=cdac,dc=in"

exit

```
authconfig --enableldap --enableldapauth
--ldapserver=192.168.147.153 --ldapbasedn="dc=cdac,dc=in"
--enablemkhomedir --update
```

su – cent

client - VMware Workstation

File Edit View VM Jobs Help Applications Places Terminal

Type here to search

Library

My Computer

- master
- node1
- node2
- cloudera-quickstart-vm
- ldap\_master
- client

cent@master:~

```
rtkit:x:172:172:RealtimeKit:/proc:/sbin/nologin
pulse:x:171:171:PulseAudio System Daemon:/var/run/pulse:/sbin/nologin
radvd:x:75:75:radvd user:/sbin/nologin
chrony:x:992:987:/var/lib/chrony:/sbin/nologin
unbound:x:991:986:Unbound DNS resolver:/etc/unbound:/sbin/nologin
qemu:x:107:107:qemu user:/sbin/nologin
tss:x:59:59:Account used by the trousers package to sandbox the tcsd daemon:/dev/null:/sbin/nologin
sssd:x:990:984:User for sssd:/sbin/nologin
usbmuxd:x:13:11:USBmuxd User:/sbin/nologin
geoclue:x:90:903:User for geoclue:/var/lib/geoclue:/sbin/nologin
ntp:x:38:38:/etc/ntp/sbin/nologin
gdm:x:42:42:/var/lib/gdm:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
nfsnobody:x:65534:65534:Anonymous NFS User:/var/lib/nfs:/sbin/nologin
gnome-initial-setup:x:988:982:/run/gnome-initial-setup:/sbin/nologin
sshd:x:74:74:Privileged separated SSH:/var/empty:sshd:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
postfix:x:89:89:/var/spool/postfix:/sbin/nologin
tcpdump:x:72:72::/sbin/nologin
nsidc:x:38:38:NetQoS Daemon:/sbin/nologin
nsidc:x:65:35:LDAP Client User:/sbin/nologin
[root@master ~]#
[root@master ~]# authconfig --enableldap --enableldapauth --ldapserver=192.168.147.153 --ldapbasedn="dc=cdac,dc=in" --enablemkhomedir --update
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# su - cent
/usr/bin/id: cannot find name for user ID 1000
/usr/bin/id: cannot find name for user ID 1000
[I have no name@master ~]$
[I have no name@master ~]$
[I have no name@master ~]$ exit
logout
[root@master ~]#
[root@master ~]#
[root@master ~]# su - cent
Last login: Wed Dec 27 23:52:29 IST 2023 on pts/0
[cent@master ~]$
[cent@master ~]$
[cent@master ~]$
[cent@master ~]$
[cent@master ~]$
[cent@master ~]#
```

cent@master:~

Show hidden icons

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

70°F Partly cloudy

Search

9:00 PM 12/27/2023