

Module:-COSA(Concept Of Operating System And Administration)

Date:- 31/10/2022

Assignment :- 05

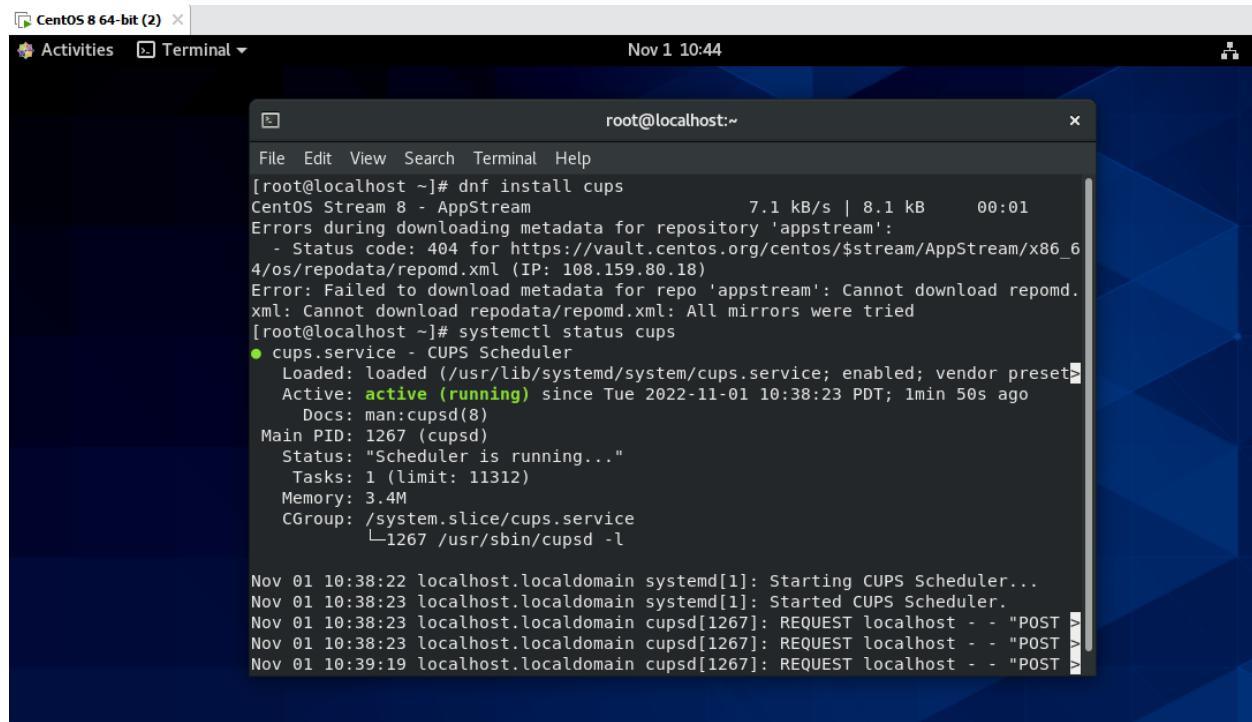
Name:- Prauthviraj Nikam

Configure CUP's

Step-1:- Install CUP's

CMD:-

```
dnf install cups  
systemctl status cups  
systemctl start cups  
systemctl enable cups
```



The screenshot shows a terminal window titled 'root@localhost:~' running on a CentOS 8 desktop environment. The terminal displays the following command-line session:

```
[root@localhost ~]# dnf install cups  
CentOS Stream 8 - AppStream 7.1 kB/s | 8.1 kB 00:01  
Errors during downloading metadata for repository 'appstream':  
- Status code: 404 for https://vault.centos.org/centos/$stream/AppStream/x86_6  
4/os/repo/repodata/repomd.xml (IP: 108.159.80.18)  
Error: Failed to download metadata for repo 'appstream': Cannot download repomd.  
xml: Cannot download repodata/repomd.xml: All mirrors were tried  
[root@localhost ~]# systemctl status cups  
● cups.service - CUPS Scheduler  
  Loaded: loaded (/usr/lib/systemd/system/cups.service; enabled; vendor preset: on)  
  Active: active (running) since Tue 2022-11-01 10:38:23 PDT; 1min 50s ago  
    Docs: man:cupsd(8)  
    Main PID: 1267 (cupsd)  
      Status: "Scheduler is running..."  
        Tasks: 1 (limit: 11312)  
       Memory: 3.4M  
         CGroup: /system.slice/cups.service  
             └─1267 /usr/sbin/cupsd -l  
  
Nov 01 10:38:22 localhost.localdomain systemd[1]: Starting CUPS Scheduler...  
Nov 01 10:38:23 localhost.localdomain systemd[1]: Started CUPS Scheduler.  
Nov 01 10:38:23 localhost.localdomain cupsd[1267]: REQUEST localhost - - "POST />  
Nov 01 10:38:23 localhost.localdomain cupsd[1267]: REQUEST localhost - - "POST />  
Nov 01 10:39:19 localhost.localdomain cupsd[1267]: REQUEST localhost - - "POST />
```

```
[root@localhost ~]# systemctl start cups  
[root@localhost ~]# systemctl enable cups  
[root@localhost ~]#
```

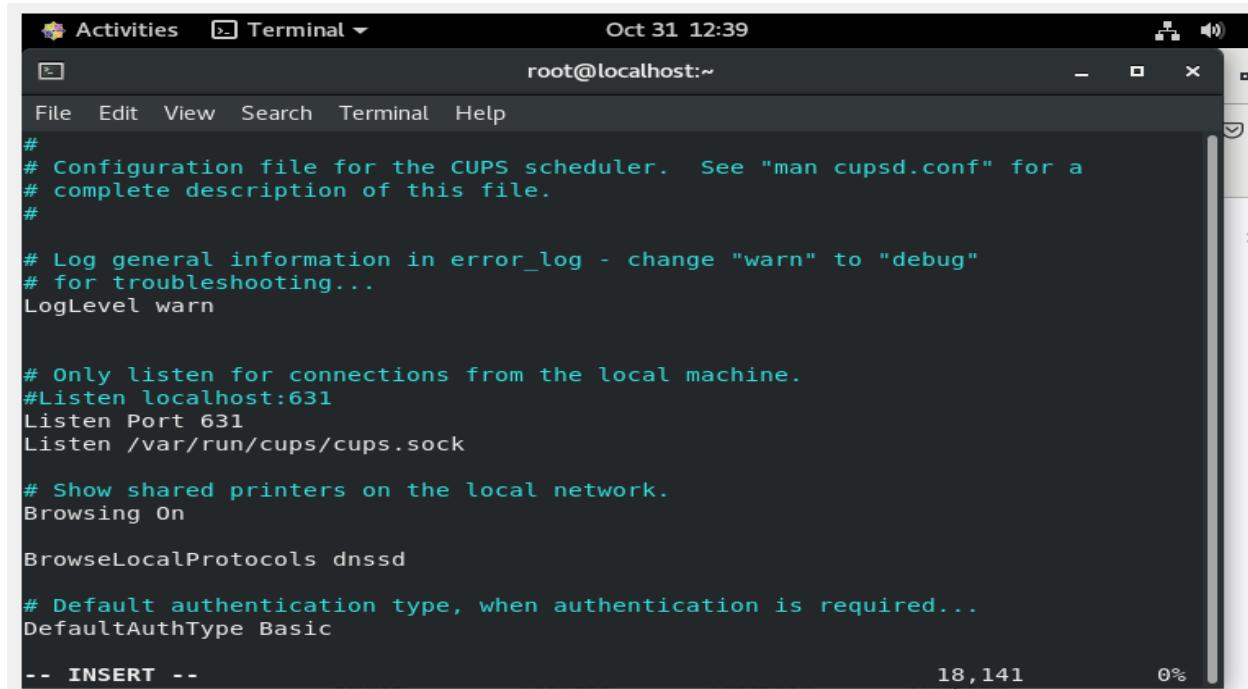
Step-2:- Configure cups

CMD:-

```
vim /etc/cups/cupsd.conf  
→ #Listen local host :631  
    Listen Port 631  
→ On Browsing
```

Browsing On

- Restrict Access to the server
ALLOW @LOCAL
- Restrict Access to the admin
ALLOW @LOCAL



A screenshot of a terminal window titled "Activities Terminal". The window shows the root shell at localhost (~). The terminal displays the contents of the /etc/cups/cupsd.conf file. The configuration includes sections for listening on localhost:631 and /var/run/cups/cups.sock, showing shared printers on the local network, and defining protocols (BrowseLocalProtocols dnssd). It also specifies a default authentication type (DefaultAuthType Basic) and an idle exit timeout (IdleExitTimeout 0). A section for restricting access to the server uses <Location> blocks to allow local access (ALLOW @LOCAL) and restrict access to the admin pages (Order allow,deny ALLOW @LOCAL). Another section restricts access to configuration files (<Location /admin/conf>) by requiring user authentication (AuthType Default, Require user @SYSTEM, Order allow,deny). The terminal status bar shows 18,141 characters and 0% battery.

```
# Configuration file for the CUPS scheduler. See "man cupsd.conf" for a
# complete description of this file.

#
# Log general information in error_log - change "warn" to "debug"
# for troubleshooting...
LogLevel warn

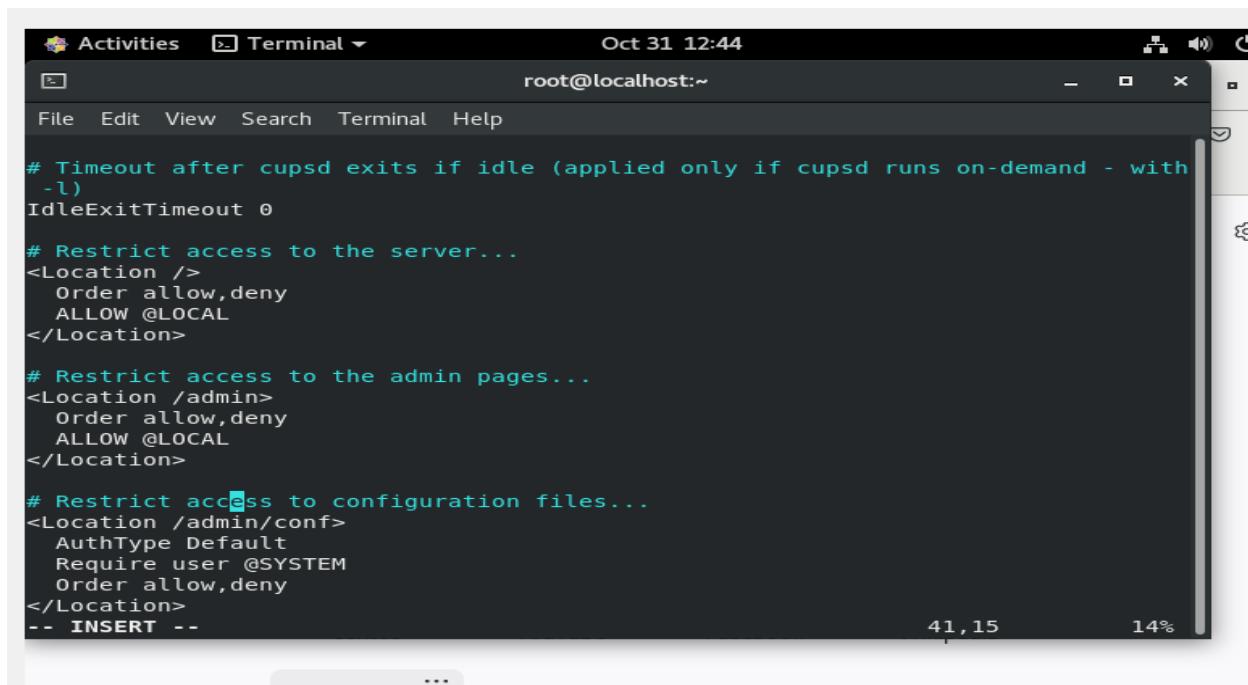
# Only listen for connections from the local machine.
#Listen localhost:631
Listen Port 631
Listen /var/run/cups/cups.sock

# Show shared printers on the local network.
Browsing On

BrowseLocalProtocols dnssd

# Default authentication type, when authentication is required...
DefaultAuthType Basic

-- INSERT --
```



A screenshot of a terminal window titled "Activities Terminal". The window shows the root shell at localhost (~). The terminal displays the contents of the /etc/cups/cupsd.conf file. The configuration includes sections for listening on localhost:631 and /var/run/cups/cups.sock, showing shared printers on the local network, and defining protocols (BrowseLocalProtocols dnssd). It also specifies a default authentication type (DefaultAuthType Basic) and an idle exit timeout (IdleExitTimeout 0). A section for restricting access to the server uses <Location> blocks to allow local access (ALLOW @LOCAL) and restrict access to the admin pages (Order allow,deny ALLOW @LOCAL). Another section restricts access to configuration files (<Location /admin/conf>) by requiring user authentication (AuthType Default, Require user @SYSTEM, Order allow,deny). The terminal status bar shows 41,15 characters and 14% battery.

```
# Timeout after cupsd exits if idle (applied only if cupsd runs on-demand - with
# -l)
IdleExitTimeout 0

# Restrict access to the server...
<Location />
  Order allow,deny
  ALLOW @LOCAL
</Location>

# Restrict access to the admin pages...
<Location /admin>
  Order allow,deny
  ALLOW @LOCAL
</Location>

# Restrict access to configuration files...
<Location /admin/conf>
  AuthType Default
  Require user @SYSTEM
  Order allow,deny
</Location>
```

Step-3:- After Configuration Restart the cups Service

```
Activities Terminal Oct 31 12:47
root@localhost:~ File Edit View Search Terminal Help
[root@localhost ~]# systemctl enable cups
[root@localhost ~]# vim /etc/cups/cupsd.conf

[1]+ Stopped vim /etc/cups/cupsd.conf
[root@localhost ~]# vim /etc/cups/cupsd.conf
[root@localhost ~]# systemctl restart cups
[root@localhost ~]# systemctl status cups
Unknown operation staus.
[root@localhost ~]# systemctl status cups
● cups.service - CUPS Scheduler
  Loaded: loaded (/usr/lib/systemd/system/cups.service; enabled; vendor preset>
  Active: active (running) since Mon 2022-10-31 12:46:51 IST; 26s ago
    Docs: man:cupsd(8)
 Main PID: 55223 (cupsd)
   Status: "Scheduler is running..."
     Tasks: 1 (limit: 12262)
    Memory: 3.5M
      CGroup: /system.slice/cups.service
              └─55223 /usr/sbin/cupsd -l

Oct 31 12:46:51 localhost.localdomain systemd[1]: Stopped CUPS Scheduler.
Oct 31 12:46:51 localhost.localdomain systemd[1]: Starting CUPS Scheduler...
Oct 31 12:46:51 localhost.localdomain systemd[1]: Started CUPS Scheduler.
lines 1-14/14 (END)
```

The screenshot shows the CUPS Administration interface running in a Firefox browser window. The title bar reads "Activities Firefox Nov 1 10:59". The main content area displays the "Administration" page of the CUPS web interface. The left sidebar has sections for "Printers", "Classes", and "Jobs", each with "Add [Item]" and "Manage [Item]" buttons. The right sidebar is titled "Server" and contains "Server Settings" with checkboxes for sharing printers, allowing internet printing, remote administration, Kerberos authentication, job cancellation, and debugging. A "Change Settings" button is at the bottom.

Administration

Printers

Add Printer Find New Printers Manage Printers

Server

Edit Configuration File

Server Settings:

Advanced ▶

Share printers connected to this system
 Allow printing from the Internet
 Allow remote administration
 Use Kerberos authentication (FAQ)
 Allow users to cancel any job (not just their own)
 Save debugging information for troubleshooting

Change Settings

Activities Firefox ▾ Nov 1 11:00

CUPS Add Printer - CUPS 2.2.6 × +

localhost:631/admin/ ... ☆

CUPS.org Home Administration Classes Help Jobs Printers

Add Printer

Add Printer

Local Printers: Serial Port #1

Discovered Network Printers:

Other Network Printers:

- Internet Printing Protocol (ipp)
- Internet Printing Protocol (http)
- Internet Printing Protocol (ipp)
- AppSocket/HP JetDirect
- LPD/LPR Host or Printer
- Internet Printing Protocol (https)
- Backend Error Handler
- Windows Printer via SAMBA