

RHSA 2 - LAB 1

1. Use systemctl to view the status of all the system services.

```
Salma >> systemctl list-units --type=service
```

UNIT	LOAD	ACTIVE	SUB	DESCRIPTION
accounts-daemon.service	loaded	active	running	Accounts Service
alsa-state.service	loaded	active	running	Manage Sound Card State (restore and store)
atd.service	loaded	active	running	Job spooling tools
auditd.service	loaded	active	running	Security Auditing Service
avahi-daemon.service	loaded	active	running	Avahi mDNS/DNS-SD Stack
bluetooth.service	loaded	active	running	Bluetooth service
chronyd.service	loaded	active	running	NTP client/server
colord.service	loaded	active	running	Manage, Install and Generate Color Profiles
crond.service	loaded	active	running	Command Scheduler
cups.service	loaded	active	running	CUPS Scheduler
dbus.service	loaded	active	running	D-Bus System Message Bus
dracut-shutdown.service	loaded	active	exited	Restore /run/initramfs on shutdown
firewalld.service	loaded	active	running	firewalld - dynamic firewall daemon
fwupd.service	loaded	active	running	Firmware update daemon
gdm.service	loaded	active	running	GNOME Display Manager
geoclue.service	loaded	active	running	Location Lookup Service
gssproxy.service	loaded	active	running	GSSAPI Proxy Daemon
httpd.service	loaded	failed	failed	The Apache HTTP Server
import-state.service	loaded	active	exited	Import network configuration from initramfs
irqbalance.service	loaded	active	running	irqbalance daemon
iscsi-shutdown.service	loaded	active	exited	Logout off all iSCSI sessions on shutdown
kmod-static-nodes.service	loaded	active	exited	Create list of required static device nodes for the current kernel
ksm.service	loaded	active	exited	Kernel Samepage Merging
kstuned.service	loaded	active	running	Kernel Samepage Merging (KSM) Tuning Daemon
libstoragemgmt.service	loaded	active	running	libstoragemgmt plug-in server daemon
lvm2-monitor.service	loaded	active	exited	Monitoring of LVM2 mirrors, snapshots etc. using dmeventd or progres
lvm2-pvscan@8:7.service	loaded	active	exited	LVM event activation on device 8:7
mcelog.service	loaded	active	running	Machine Check Exception Logging Daemon
ModemManager.service	loaded	active	running	Modem Manager
netcf-transaction.service	loaded	active	exited	Rollback uncommitted netcf network config change transactions
NetworkManager-wait-online.service	loaded	active	exited	Network Manager Wait Online
NetworkManager.service	loaded	active	running	Network Manager
nis-domainname.service	loaded	active	exited	Read and set NIS domainname from /etc/sysconfig/network
packagekit.service	loaded	active	running	PackageKit Daemon
plymouth-quit-wait.service	loaded	active	exited	Hold until boot process finishes up
plymouth-read-write.service	loaded	active	exited	Tell Plymouth To Write Out Runtime Data
plymouth-start.service	loaded	active	exited	Show Plymouth Boot Screen

2. Change the default run level back to multi-user.target and reboot.

```
Salma >> systemctl set-default multi-user.target
Removed /etc/systemd/system/default.target.
Created symlink /etc/systemd/system/default.target -> /usr/lib/systemd/system/multi-user.target.
Salma >>
```

3. Send mail to the root user.

4. Verify that you have received this mail.

```
Salma >> echo "hello" | mailx -s"hi" root
Salma >> su -
Password:
[root@localhost ~]# mailx
Heirloom Mail version 12.5 7/5/10. Type ? for help.
"/var/spool/mail/root": 3 messages 1 new 2 unread
 1 Salma Mabrouk Thu Dec 8 14:08 22/879
 2 Salma Mabrouk Thu Dec 8 14:11 23/880 "asd"
>N 3 Salma Mabrouk Sat Dec 24 00:20 22/873 "hi"
&
```

5. Use systemctl utility to stop postfix service.

```
Salma >> systemctl stop postfix
Salma >>
```

6.Send mail again to the root user.

7. Verify that you have received this mail.

```
root@localhost:~  
File Edit View Search Terminal Help  
Salma >> echo "hello root" | mailx root -s "hey root"  
Salma >> su -  
Password:  
[root@localhost ~]# mailx  
Heirloom Mail version 12.5 7/5/10. Type ? for help.  
"/var/spool/mail/root": 3 messages 2 unread  
> 1 Salma Mabrouk Thu Dec 8 14:08 22/879  
U 2 Salma Mabrouk Thu Dec 8 14:11 23/880 "asd"  
U 3 Salma Mabrouk Sat Dec 24 00:20 23/883 "hi"  
$
```

8.Use systemctl utility to start postfix service

```
smabrouk@localhost:~  
File Edit View Search Terminal Help  
Salma >> systemctl start postfix  
Salma >> |
```

9.Verify that you have received this mail.

```
root@localhost:~  
File Edit View Search Terminal Help  
Salma >> su -  
Password:  
[root@localhost ~]# mail  
Heirloom Mail version 12.5 7/5/10. Type ? for help.  
"/var/spool/mail/root": 3 messages  
> 1 Salma Mabrouk Thu Dec 8 14:08 22/879  
2 Salma Mabrouk Thu Dec 8 14:11 23/881 "asd"  
3 Salma Mabrouk Sat Dec 24 00:20 23/884 "hi"  
$
```

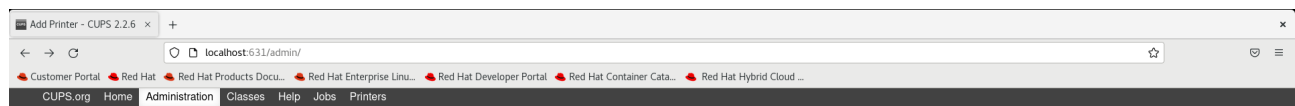
10.Edit in the GRUB2 configuration file and change the timeout variable equal 20 seconds.

```
smabrouk@localhost:~  
File Edit View Search Terminal Help  
GRUB_TIMEOUT=20  
GRUB_DISTRIBUTOR="$(sed 's, release .*$,g' /etc/system-release)"  
GRUB_DEFAULT=saved  
GRUB_DISABLE_SUBMENU=true  
GRUB_TERMINAL_OUTPUT="console"  
GRUB_CMDLINE_LINUX="resume=/dev/mapper/rhel-swap rd.lvm.lv=rhel/root rd.lvm.lv=rhel/swap rhgb quiet"  
GRUB_DISABLE_RECOVERY="true"  
GRUB_ENABLE_BLSCFG=true  
~  
~  
~
```

11.Edit in the GRUB2 configuration file and change your default operating system.

```
smabrouk@localhost:~  
File Edit View Search Terminal Help  
GRUB_TIMEOUT=20  
GRUB_DISTRIBUTOR="$(sed 's, release .*$,g' /etc/system-release)"  
GRUB_DEFAULT=saved  
GRUB_DISABLE_SUBMENU=true  
GRUB_TERMINAL_OUTPUT="console"  
GRUB_CMDLINE_LINUX="resume=/dev/mapper/rhel-swap rd.lvm.lv=rhel/root rd.lvm.lv=rhel/swap rhgb quiet"  
GRUB_DISABLE_RECOVERY="true"  
GRUB_ENABLE_BLSCFG=true  
GRUB_DEFAULT=0  
~  
~  
~
```

12. Install a new printer called "tty2" using the system-config-printer utility. Have the printer queue be "/dev/tty12" and specify a "Text Only Printer" for its model type.



Add Printer

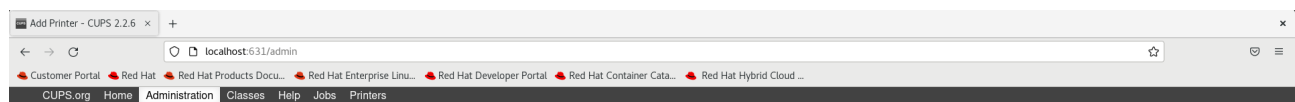
Add Printer

Local Printers:

Discovered Network Printers:

Other Network Printers:

- ☐ Backend Error Handler
- ☒ Internet Printing Protocol (http)
- ☐ Internet Printing Protocol (https)
- ☐ Internet Printing Protocol (ipp)
- ☐ Internet Printing Protocol (lpr)
- ☐ LPD/LPR Host or Printer
- ☐ AppSocket/HP JetDirect



Add Printer

Add Printer

Connection:

Examples:

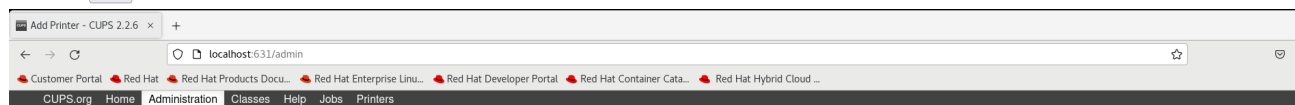
```
http://hostname:631/ipp/
http://hostname:631/ipp/port1

ipp://hostname/ipp/
ipp://hostname/ipp/port1

lpr://hostname/queue

socket://hostname
socket://hostname:9100
```

See ["Network Printers"](#) for the correct URI to use with your printer.



Add Printer

Add Printer

Name:

(May contain any printable characters except "*", "#", and space)

Description:

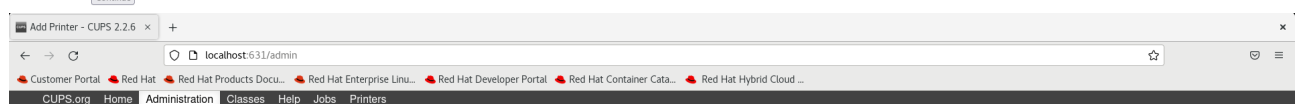
(Human-readable description such as "HP LaserJet with Duplexer")

Location:

(Human-readable location such as "Lab 1")

Connection:

Sharing: ☒ Share This Printer



Add Printer

Add Printer

Name: tty2

Description:

Location:

Connection: http://smabrouk:631/pp/

Sharing: Share This Printer

Make: Generic

Model:

- Generic PCL Color LF wide margin - CUPS+Gutenprint v5.2.14 Simplified (en)
- Generic PCL Color Tabl wide margin - CUPS+Gutenprint v5.2.14 (en)
- Generic PCL Color Tabl wide margin - CUPS+Gutenprint v5.2.14 Simplified (en)
- Generic PCL Color wide margin - CUPS+Gutenprint v5.2.14 (en)
- Generic PCL Color wide margin - CUPS+Gutenprint v5.2.14 Simplified (en)
- Generic PCL Laser Printer (en)
- Generic PDF Printer (en)
- Generic PostScript Printer (en)
- Generic Text Only Printer (en)**
- Generic UBRL generator, 1.0 (en)

Or Provide a PPD File: No file selected.

Set Printer Options - CUP: x

localhost:631/admin

Customer PortalRed HatRed Hat Products Docu...Red Hat Enterprise Linu...Red Hat Developer PortalRed Hat Container Cata...Red Hat Hybrid Cloud ...

CUPS.orgHomeAdministrationClassesHelpJobsPrinters

Set Printer Options

Set Default Options for tty2

[General](#)[Options Installed](#)[Banners](#)[Policies](#)

General

Media Size: A4

Long Line Handling: Word Wrap

Tab Stop Width: 8 Spaces

Paginate Output ('On' for sheets, 'Off' for roll): ☒ On ☐ Off

Left Margin: 5 Columns

Right Margin: 2 Columns

Top Margin: 2 Lines

Bottom Margin: 2 Lines

Set Default Options

Set Printer Options - CUP: x

localhost:631/admin

Customer PortalRed HatRed Hat Products Docu...Red Hat Enterprise Linu...Red Hat Developer PortalRed Hat Container Cata...Red Hat Hybrid Cloud ...

CUPS.orgHomeAdministrationClassesHelpJobsPrinters

Set Printer Options

Set Default Options for tty2

Printer [tty2](#) default options have been set successfully.

tty2 - CUPS 2.2.6 x

localhost:631/printers/tty2

Customer PortalRed HatRed Hat Products Docu...Red Hat Enterprise Linu...Red Hat Developer PortalRed Hat Container Cata...Red Hat Hybrid Cloud ...

CUPS.orgHomeAdministrationClassesHelpJobsPrinters

tty2

tty2 (Idle, Accepting Jobs, Not Shared)

MaintenanceAdministration

Description:

Location:

Driver: Generic Text-Only Printer (grayscale)

Connection: http://smabrouk.631/lpp/

Defaults: job-sheets=none, none media=iso_a4_210x297mm sides=one-sided

Jobs

Search in tty2:

Jobs listed in print order; held jobs appear first.

smabrouk@localhost:~

File Edit View Search Terminal Help

Salma >> lpc status

tty2:

printer is on device 'http' speed -1

queuing is enabled

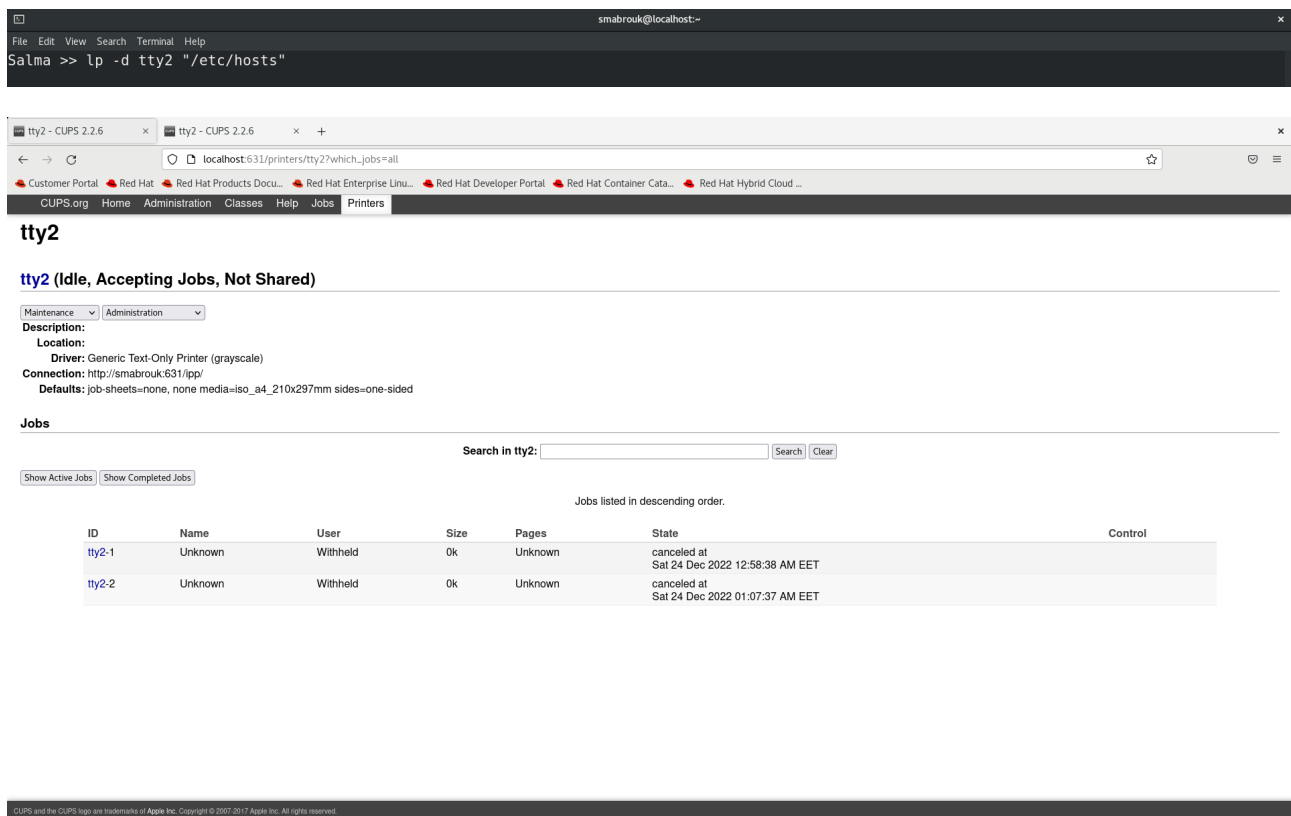
printing is enabled

no entries

daemon present

Salma >>

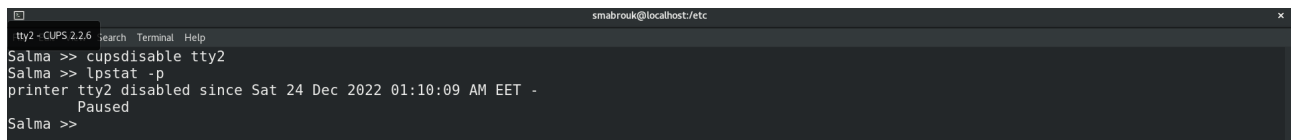
13. Print the file /etc/hosts to the printer and view the /dev/tty12 console to ensure that the print job went to the "printer".



The image shows two windows. The top window is a terminal with the command `lp -d tty2 "/etc/hosts"` entered. The bottom window is a web browser showing the CUPS printer status page for `tty2`. The page title is `tty2` and the subtitle is `tty2 (Idle, Accepting Jobs, Not Shared)`. The printer is located at `http://smabrouk:631/lp/`. The jobs section shows two jobs, `tty2-1` and `tty2-2`, both in a "canceled" state.

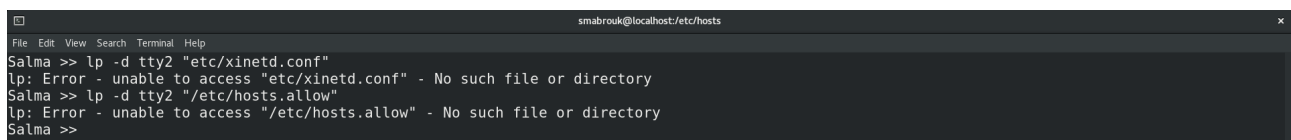
ID	Name	User	Size	Pages	State	Control
tty2-1	Unknown	Withheld	0k	Unknown	canceled at Sat 24 Dec 2022 12:58:38 AM EET	
tty2-2	Unknown	Withheld	0k	Unknown	canceled at Sat 24 Dec 2022 01:07:37 AM EET	

14. Prevent jobs from leaving the tty12 printer queue to the printer. Do not prevent users from sending jobs to the tty12 printer queue.



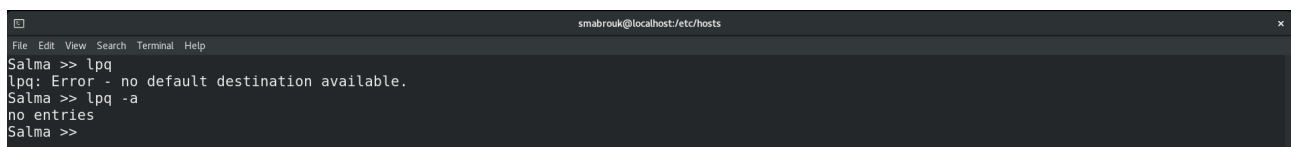
The image shows a terminal window with the command `cupsdisable tty2` entered. The output shows that the printer `tty2` has been disabled since Sat 24 Dec 2022 01:10:09 AM EET and is now in a "Paused" state.

15. Print three files (/etc/hosts, /etc/xinetd.conf, and /etc/hosts.allow) to the tty12 printer.



The image shows a terminal window with the command `lp -d tty2 "/etc/hosts"` entered. The output shows that the printer `tty2` is disabled and the command failed with the error "lp: Error - unable to access "/etc/hosts.allow" - No such file or directory".

16. View the print queue.



The image shows a terminal window with the command `lpq` entered. The output shows that there are no entries in the print queue.

17. Remove the second print job from the tty12 printer queue, and then allow the print jobs from the queue to be printed.

```
smabrouk@localhost:/etc/hosts
File Edit View Search Terminal Help
Salma >> lprm 2
lprm: Job #2 is already canceled - can't cancel.
Salma >> █
```

18. Prevent print jobs from going to the tty12 printer's print queue.

19. Verify this by trying to print the /etc/hosts file.

```
smabrouk@localhost:/etc/hosts
File Edit View Search Terminal Help
Salma >> cupsreject tty2
Salma >> lp -d tty2 "/etc/hosts"
lp: Destination "tty2" is not accepting jobs.
Salma >> █
```

20. Delete the tty12 printer with the lpadmin command.

```
smabrouk@localhost:/etc/hosts
File Edit View Search Terminal Help
Salma >> lpadmin -p tty2 -c class1
Salma >> lpadmin -p tty2 -r class1
Salma >> lpstat -c class1
lpstat: Invalid destination name in list "class1".
Salma >> █
```