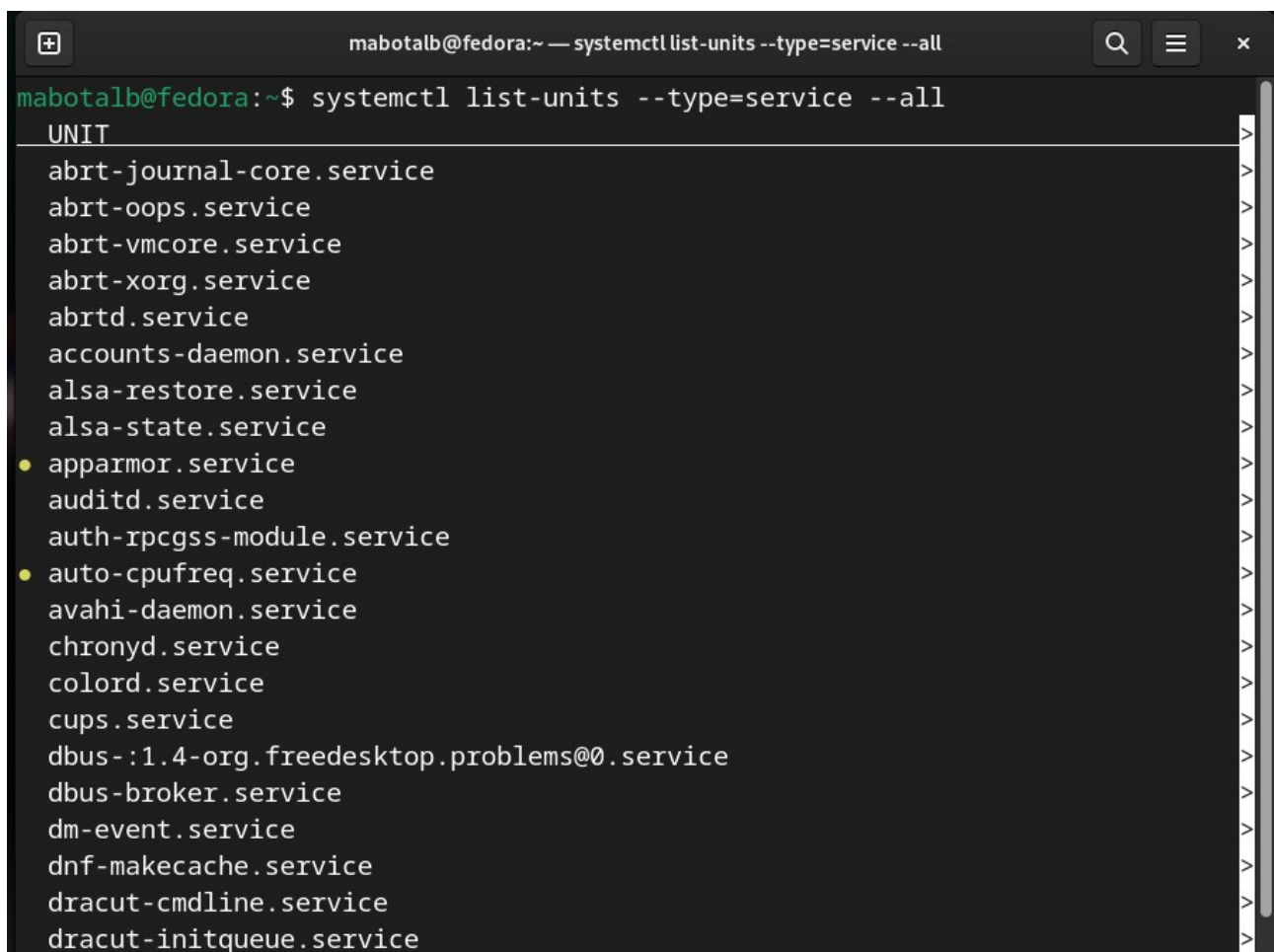# Advanced Admin 1 – Lab 1

Mohamed Abd Elaziz Abotalb

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

=> systemctl list-units --type=service --all

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

=> systemctl set-default multi-user.target
=> sudo reboot

```
mabotalb@fedora:~$ systemctl get-default
graphical.target
mabotalb@fedora:~$ systemctl set-default multi-user.target
Removed "/etc/systemd/system/default.target".
Created symlink /etc/systemd/system/default.target → /usr/lib/systemd/system/mul
ti-user.target.
mabotalb@fedora:~$ sudo reboot
```

```
Fedora Linux 39 (Workstation Edition)
Kernel 6.5.6-300.fc39.x86_64 on an x86_64 (tty1)

fedora login: mabotalb
Password:
Last login: Thu Jan 25 21:28:03 on tty2
[mabotalb@fedora ~]$ _
```
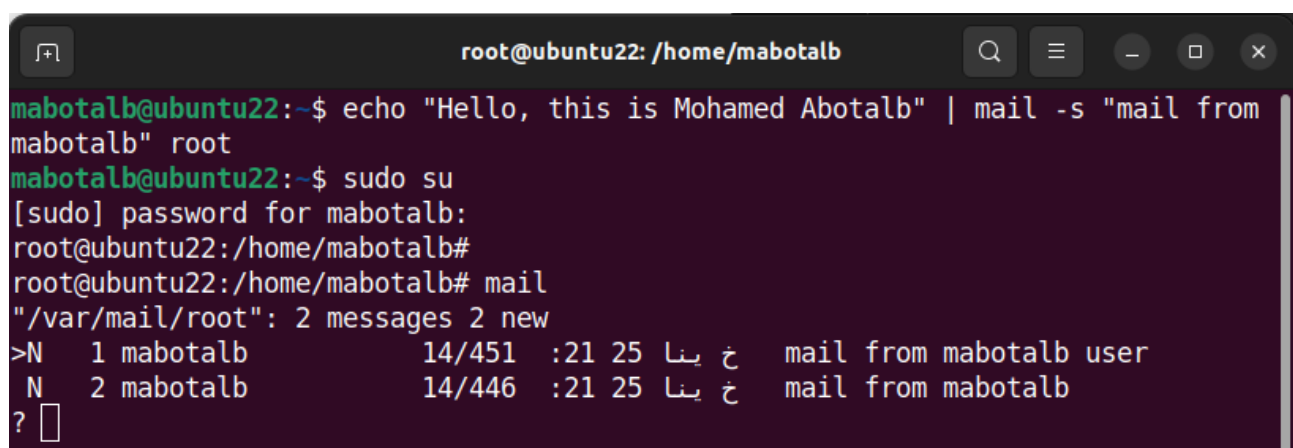
3. Send mail to the root user.

=> echo "Hello, This is Mohamed Abotalb" | mail -s "mabotalb user mail" root

4. Verify that you have received this mail.

=> sudo su
=> mail

5. Use systemctl utility to stop postfix service

=> sudo systemctl stop postfix

6. Send mail again to the root user.

=> echo "Hello, Postfix is Disabled" | mail -s "Postfix is Disabled" root

7. Verify that you have received this mail.

=> mail wasn't sent

8. Use systemctl utility to start postfix service

=> sudo systemctl start postfix

9. Verify that you have received this mail.

```
root@ubuntu22: /home/mabotalb
mabotalb@ubuntu22:~$ sudo su
root@ubuntu22:/home/mabotalb# mail
"/var/mail/root": 3 messages 3 new
>N   1 mabotalb          16/504  :21 25 خ ينا    mail from mabotalb user
 N   2 mabotalb          15/455  :21 25 خ ينا    mail from mabotalb
 N   3 mabotalb          14/451  :22 25 خ ينا    Postfix is Disabled
2 □
```

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

```
mabotalb@fedora:~
mabotalb@fedora:~$ sudo gedit /etc/default/grub

(gedit:3098): Gtk-WARNING **: 22:32:50.249: Calling org.freedesktop.portal.Inhib
it.Inhibit failed: GDBus.Error:org.freedesktop.DBus.Error.UnknownMethod: No such
 interface "org.freedesktop.portal.Inhibit" on object at path /org/freedesktop/p
ortal/desktop
mabotalb@fedora:~$ cat /etc/default/grub
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="rhgb quiet"
GRUB_DISABLE_RECOVERY="true"
GRUB_ENABLE_BLSCFG=true
mabotalb@fedora:~$
```

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

```
mabotalb@fedora:~$ sudo gedit /etc/default/grub

(gedit:3138): Gtk-WARNING **: 22:35:56.300: Calling org.freedesktop.portal.Inhib
it.Inhibit failed: GDBus.Error:org.freedesktop.DBus.Error.UnknownMethod: No such
 interface "org.freedesktop.portal.Inhibit" on object at path /org/freedesktop/p
ortal/desktop
mabotalb@fedora:~$ cat /etc/default/grub
GRUB_TIMEOUT=20
GRUB_DISTRIBUTOR="$(sed 's, release .*$,,g' /etc/system-release)"
GRUB_DEFAULT="fedora"
GRUB_DISABLE_SUBMENU=true
GRUB_TERMINAL_OUTPUT="console"
GRUB_CMDLINE_LINUX="rhgb quiet"
GRUB_DISABLE_RECOVERY="true"
GRUB_ENABLE_BLSCFG=true
mabotalb@fedora:~$
```

12. You want to know some information about the status of the system every ten minutes today between the hours of 8:00 AM and 5:00 PM. to help investigate some performance issues you have been having. You suspect it might be memory related and want to keep an eye on those resources.

```
mabotalb@ubuntu22:~$ crontab -e
crontab: installing new crontab
mabotalb@ubuntu22:~$ crontab -l
# m h  dom mon dow   command
*/10 8-17 * * * systemctl status >> /home/mabotalb/system_status
mabotalb@ubuntu22:~$
```

13. Use mail as the root user to check for e-mail from the cron jobs you have scheduled.

```
                         mabotalb@ubuntu22: ~
mabotalb@ubuntu22:~$ crontab -e
crontab: installing new crontab
mabotalb@ubuntu22:~$ crontab -l
# m h  dom mon dow   command
*/10 8-17 * * * systemctl status >> /home/mabotalb/system_status
* * * * * mail -s "System Status" root
mabotalb@ubuntu22:~$
```

```
                    root@ubuntu22: /home/mabotalb
mabotalb@ubuntu22:~$ sudo su
[sudo] password for mabotalb:
root@ubuntu22:/home/mabotalb# mail
"/var/mail/root": 4 messages 4 new
>N   1 mabotalb          16/504  خ يناي 25 21:   mail from mabotalb user
 N   2 mabotalb          15/455  خ يناي 25 21:   mail from mabotalb
 N   3 mabotalb          14/451  خ يناي 25 22:   Postfix is Disabled
 N   4 mabotalb          13/410  خ يناي 25 23:   System Status
?
```

14. How could you send the output from these cron jobs to another e-mail address (the manager user)?

```
                      mabotalb@ubuntu22: /home/ahmed
mabotalb@ubuntu22:/home/ahmed$ crontab -e
crontab: installing new crontab
mabotalb@ubuntu22:/home/ahmed$ crontab -l
# m h  dom mon dow   command
*/10 8-17 * * * systemctl status >> /home/mabotalb/system_status
* * * * * mail -s "System Status" root
* * * * * echo "Message to manager Ahmed from mabotalb" | mail -s "Jobs Scheduled" ahmed

mabotalb@ubuntu22:/home/ahmed$
```

15. Use mail as the manager user to check for e-mail from the cron jobs you have scheduled.

```
mabotalb@ubuntu22:~$ su ahmed
Password:
ahmed@ubuntu22:/home/mabotalb$ cd ~
ahmed@ubuntu22:~$ mail
"/var/mail/ahmed": 1 message 1 new
>N   1 mabotalb           14/453   :23 25 ينا خ    Jobs Scheduled
?
```