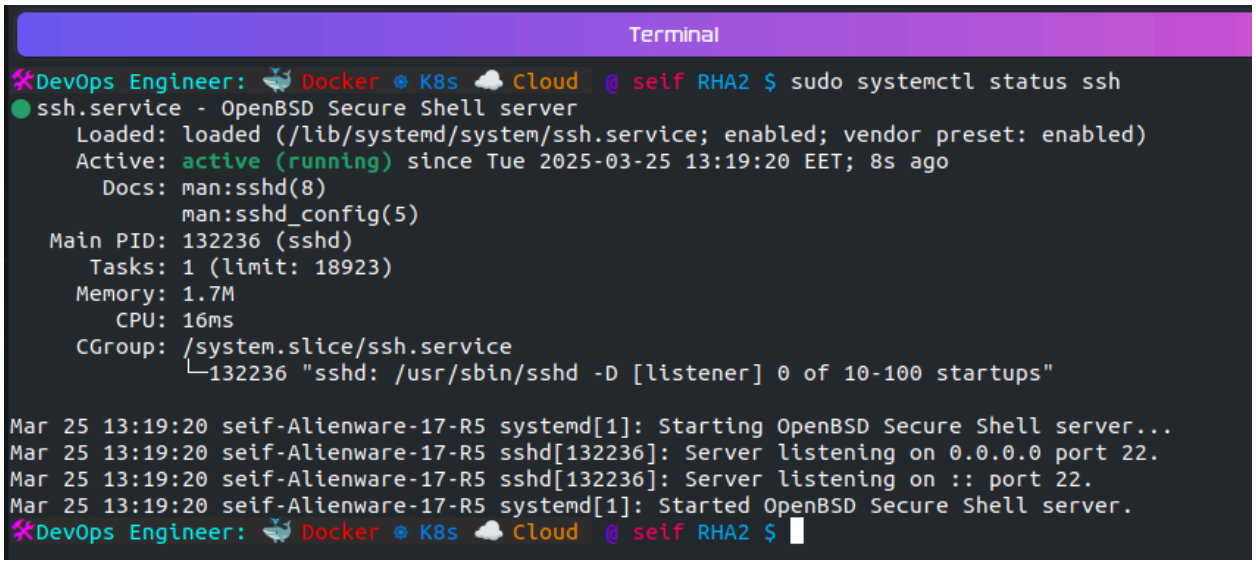
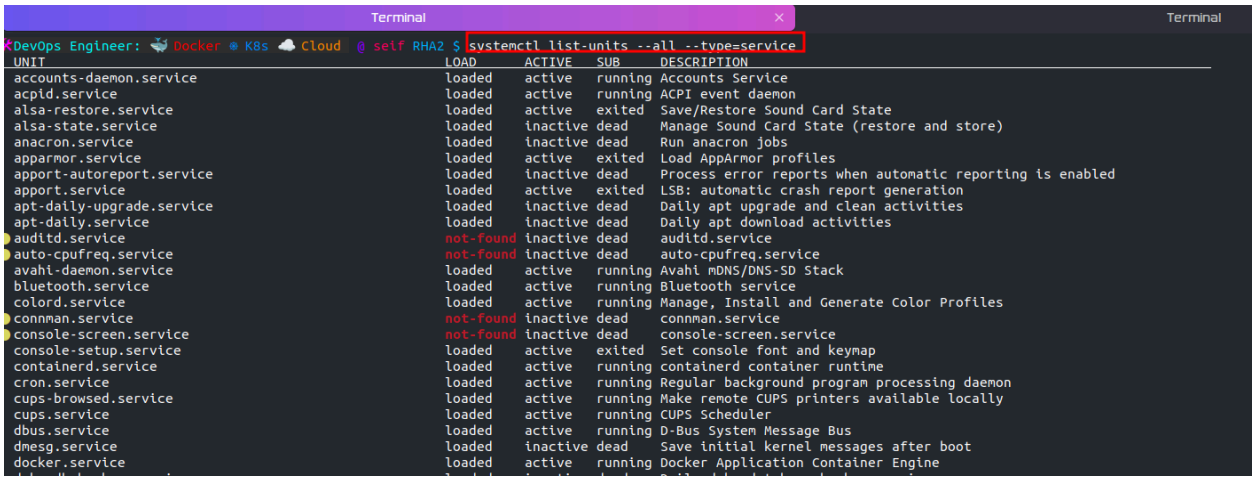
Seif Hendawy
RHCSA II Day 1

Q1. use systemctl to View the status of sshd services



Q2. use systemctl to view the status of all the system services



Q3.

a- Send mail to the root user and Verify that you have received this mail

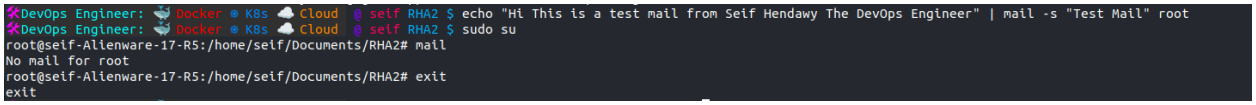
```
DevOps Engineer: Docker K8s Cloud @ seif RHA2 $ echo "Hi I am Seif Hendawy DevOps Engineer" | mail -s "RHCSA2 Lab 1" root
DevOps Engineer: Docker K8s Cloud @ seif RHA2 $ sudo su
root@seif-Alienware-17-R5:/home/seif/Documents/RHA2# mail
"/var/mail/root": 5 messages 5 new
>N   1 Seif Hendawy       Tue Feb 25 20:25  17/481   EMAIL
 N   2 Seif Hendawy       Tue Feb 25 20:33  17/481   EMAIL
 N   3 Seif Hendawy       Tue Feb 25 20:42  17/481   EMAIL
 N   4 seif@seif-Alienwar Thu Feb 27 08:46  15/617   *** SECURITY information for seif-Alienware-17-R5 ***
 N   5 Seif Hendawy       Tue Mar 25 13:26  14/494   RHCSA2 Lab 1
? _
```

```
Return-Path: <seif@seif-Alienware-17-R5>
X-Original-To: root
Delivered-To: root@seif-Alienware-17-R5
Received: by seif-Alienware-17-R5 (Postfix, from userid 1000)
        id EDB4F18BB7E; Tue, 25 Mar 2025 13:26:24 +0200 (EET)
Subject: RHCSA2 Lab 1
To: root@seif-Alienware-17-R5
User-Agent: mail (GNU Mailutils 3.14)
Date: Tue, 25 Mar 2025 13:26:24 +0200
Message-Id: <20250325112624.EDB4F18BB7E@seif-Alienware-17-R5>
From: Seif Hendawy <seif@seif-Alienware-17-R5>

Hi I am Seif Hendawy DevOps Engineer
```

b- Use systemctl utility to stop postfix/sendmail service

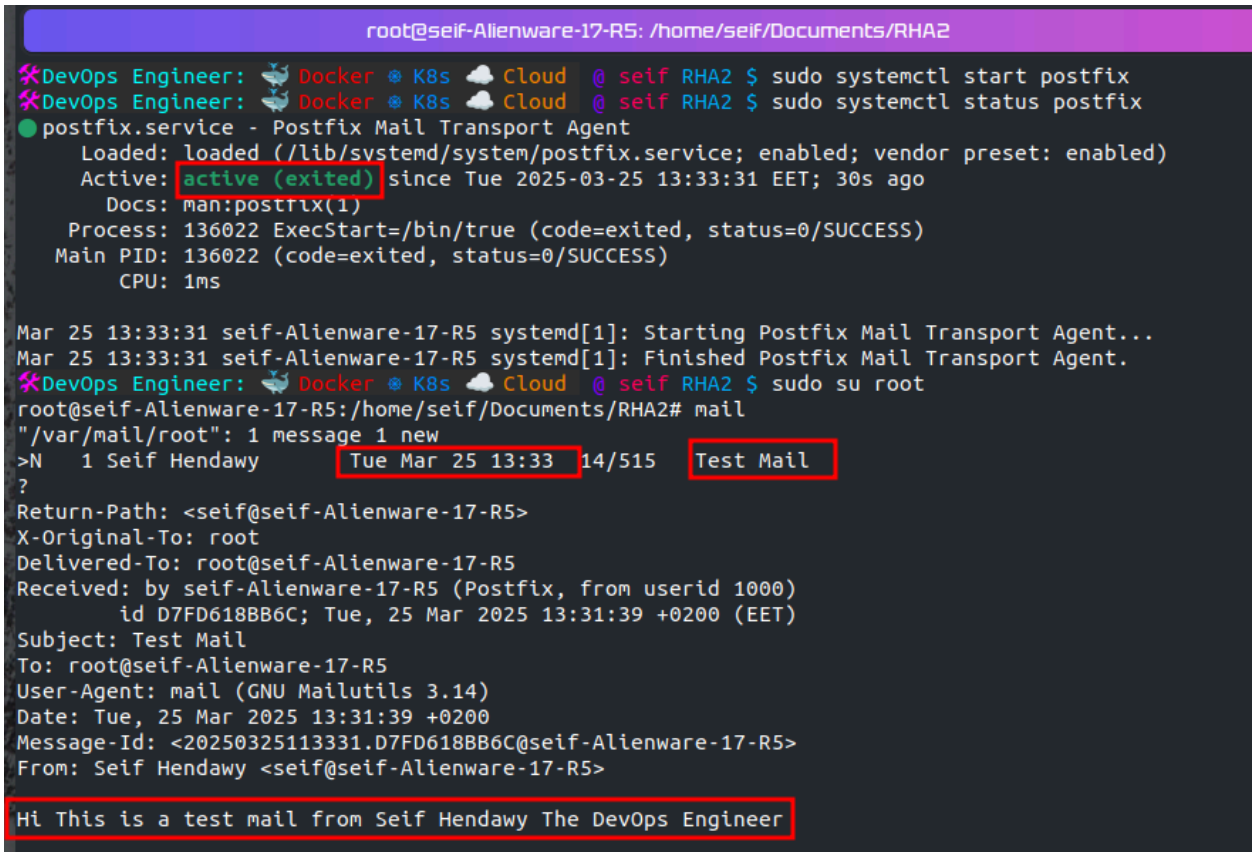
```
Terminal
DevOps Engineer: Docker K8s Cloud @ seif RHA2 $ sudo systemctl stop postfix
[sudo] password for seif:
DevOps Engineer: Docker K8s Cloud @ seif RHA2 $ sudo systemctl status postfix
○ postfix.service - Postfix Mail Transport Agent
     Loaded: loaded (/lib/systemd/system/postfix.service; enabled; vendor preset: enabled)
     Active: inactive (dead) since Tue 2025-03-25 13:30:21 EET; 4s ago
       Docs: man:postfix(1)
   Main PID: 3105 (code=exited, status=0/SUCCESS)
        CPU: 931us

Mar 25 09:22:25 seif-Alienware-17-R5 systemd[1]: Starting Postfix Mail Transport Agent...
Mar 25 09:22:25 seif-Alienware-17-R5 systemd[1]: Finished Postfix Mail Transport Agent.
Mar 25 13:30:21 seif-Alienware-17-R5 systemd[1]: postfix.service: Deactivated successfully.
Mar 25 13:30:21 seif-Alienware-17-R5 systemd[1]: Stopped Postfix Mail Transport Agent.
DevOps Engineer: Docker K8s Cloud @ seif RHA2 $
```

c- Send mail again to the root user and Verify that you have received this mail



d- Use systemctl utility to start postfix/sendmail service

e- Verify that you have received this mail



Q4. switch to the multi-user target manually without rebooting

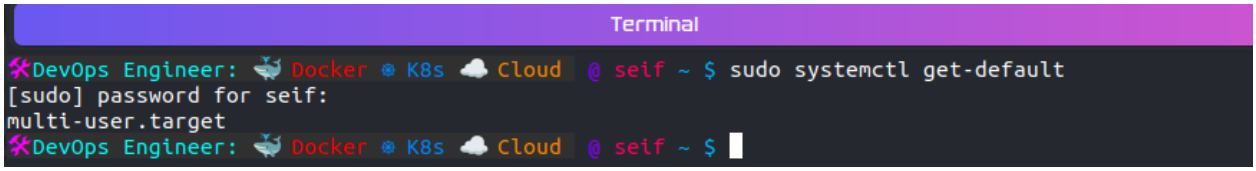
sudo systemctl isolate multi-user.target

the system logged off and went into tty mode

Then I ran this command to get back to the GUI mode

sudo systemctl isolate graphical.target

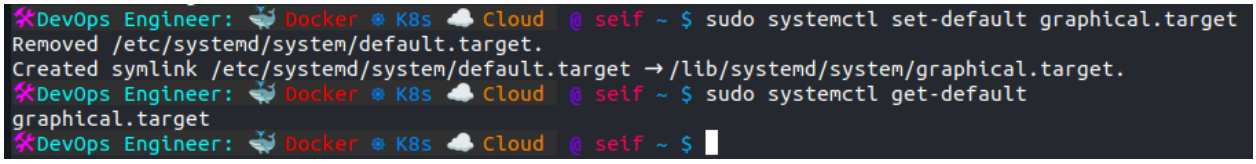
Q5. display default target



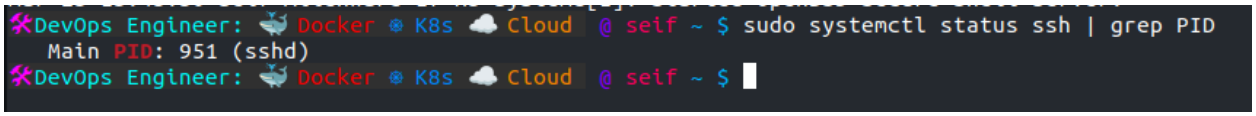
Q6. change the default target back to multi-user.target and reboot

I already changed it in the tty mode

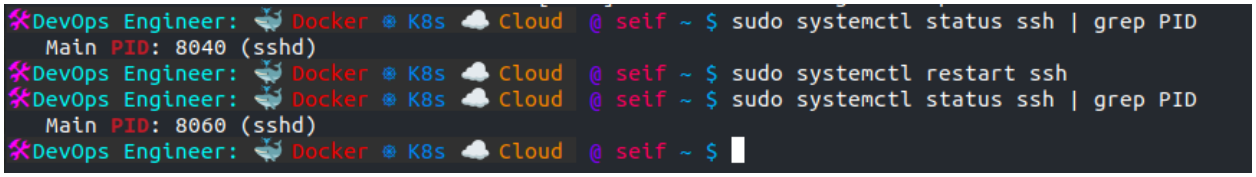
Q7. set the default systemd target back to graphical.target



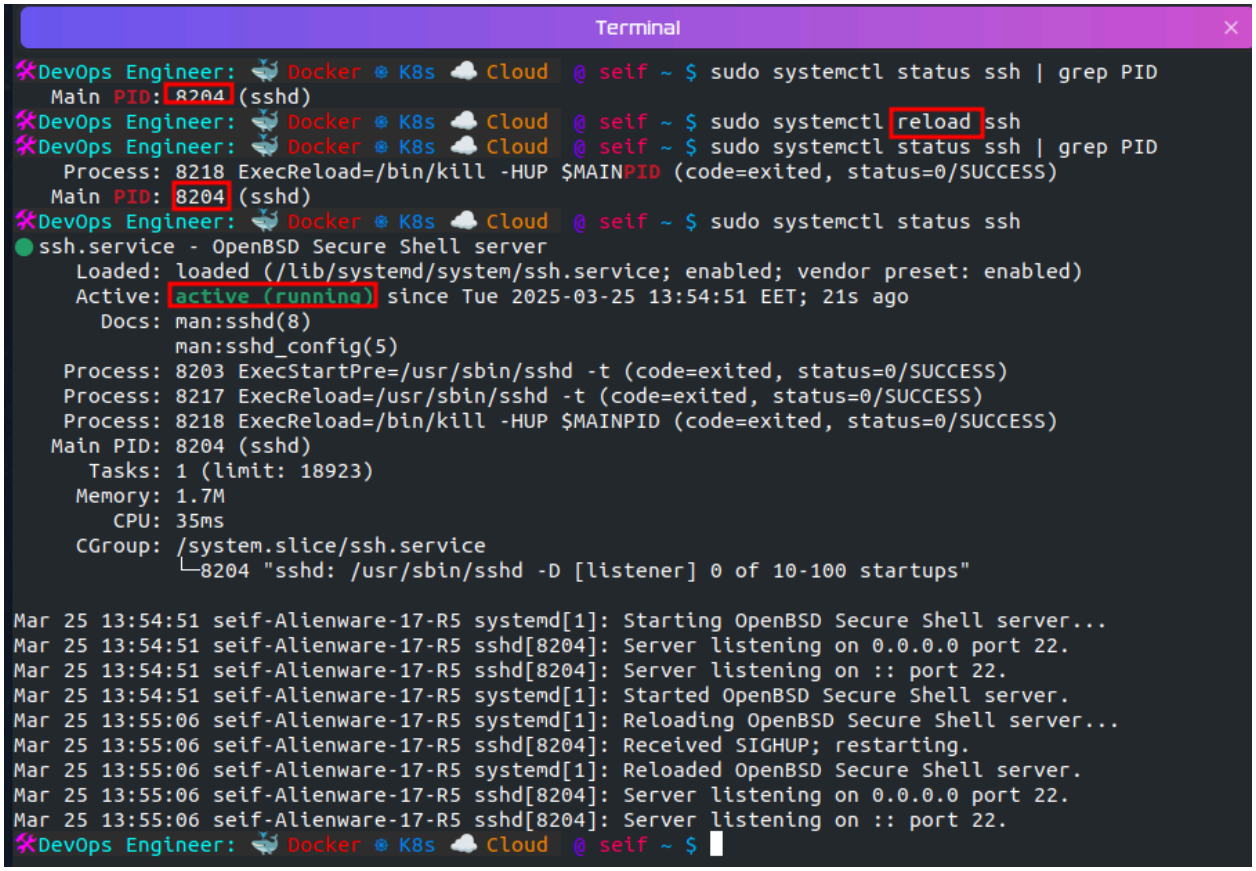
Q8.Display the status of sshd service, note the PID of the daemon.



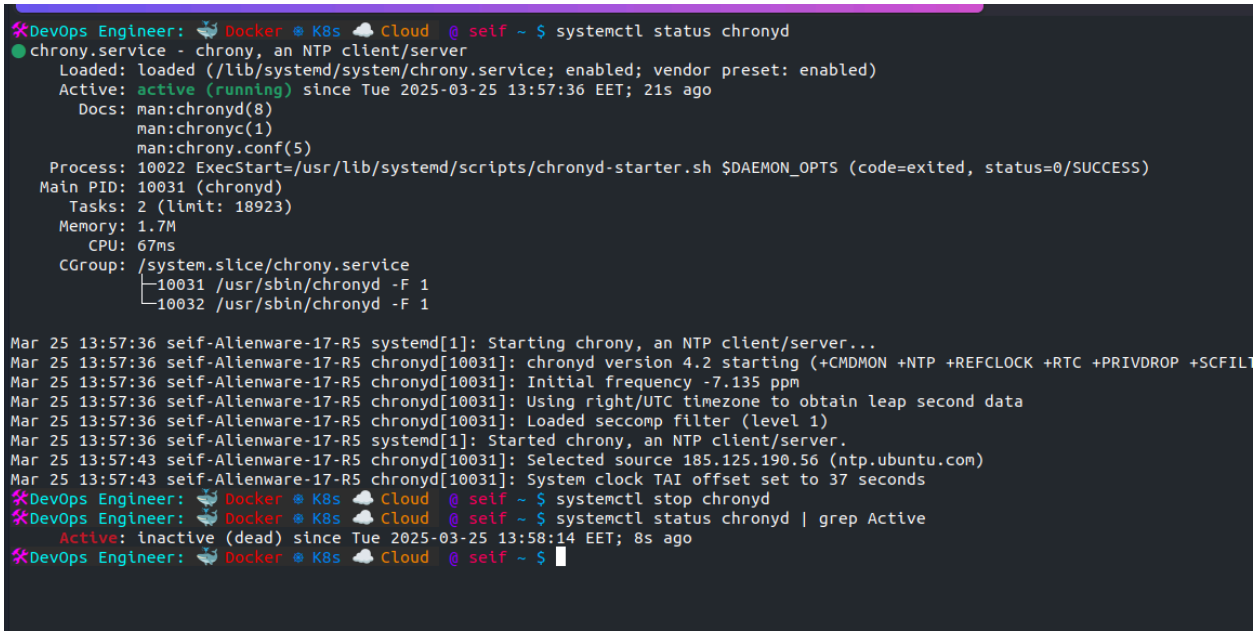
Q9. Restart the sshd service and view the status, The PID of the daemon has changed



Q10. Reload the sshd service and view the status, The PID of the daemon has not changed and connection has not be interrupted



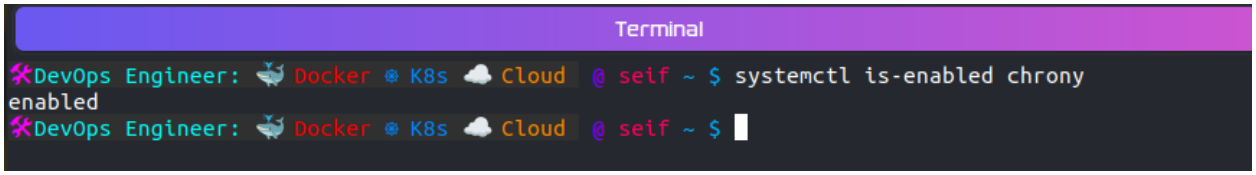
Q11. Verify that the chronyd service is running

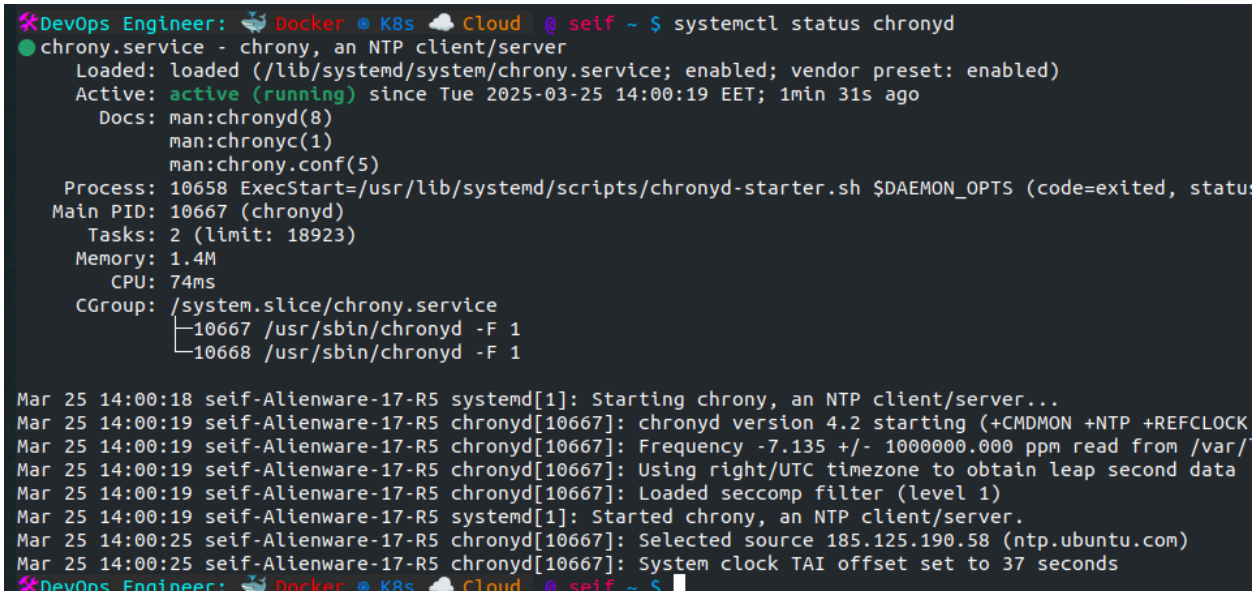


Q12.

a- Determine if the chronyd service is enabled to start at the system boot

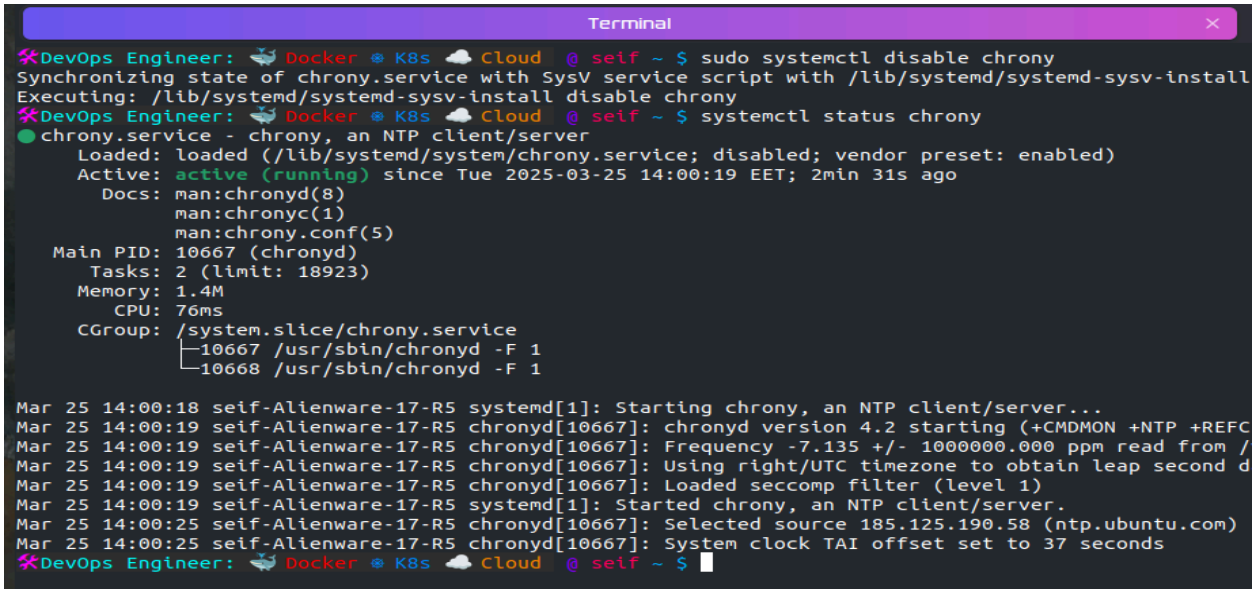
b- Reboot the system, then view the status of the chronyd service





Q13.

a- Disable the chronyd service so that it doesn't start at system boot, then view the status of the service



b- Reboot the system, then view the status of the chronyd service

```
DevOps Engineer:  Docker  K8s  Cloud  @ seif ~ $ systemctl status chrony
chrony.service - chrony, an NTP client/server
     Loaded: loaded (/lib/systemd/system/chrony.service; disabled; vendor preset: enabled)
     Active: inactive (dead)
       Docs: man:chronyd(8)
             man:chronyc(1)
             man:chrony.conf(5)
DevOps Engineer:  Docker  K8s  Cloud  @ seif ~ $
```

Q14. disblay all Static Sevices

```
Terminal
DevOps Engineer:  Docker  K8s  Cloud  @ seif ~ $ sudo systemctl list-unit-files --type=service --state=static
[sudo] password for seif:
UNIT FILE                              STATE  VENDOR PRESET
alsa-restore.service                   static -
alsa-state.service                     static -
apport-autoreport.service              static -
apport-forward@.service                static -
apt-daily-upgrade.service              static -
apt-daily.service                      static -
apt-news.service                       static -
bolt.service                           static -
brltty-udev.service                    static -
chrony-dnssrv@.service                 static -
colord.service                         static -
configure-printer@.service             static -
container-getty@.service               static -
dbus.service                           static -
dpkg-db-backup.service                 static -
e2scrub@.service                       static -
e2scrub_all.service                    static -
e2scrub_fail@.service                  static -
emergency.service                      static -
esm-cache.service                      static -
fprintd.service                        static -
friendly-recovery.service              static -
fstrim.service                         static -
fwupd-offline-update.service           static -
fwupd-refresh.service                  static -
```

Q15. What difference Between enable,disable,static,mask Service

enable Automatic Start with booting

disable Automatic Start with booting

static services cannot be enabled manually because they are meant to be triggered by another service or dependency

mask Prevents a service from being started manually or automatically

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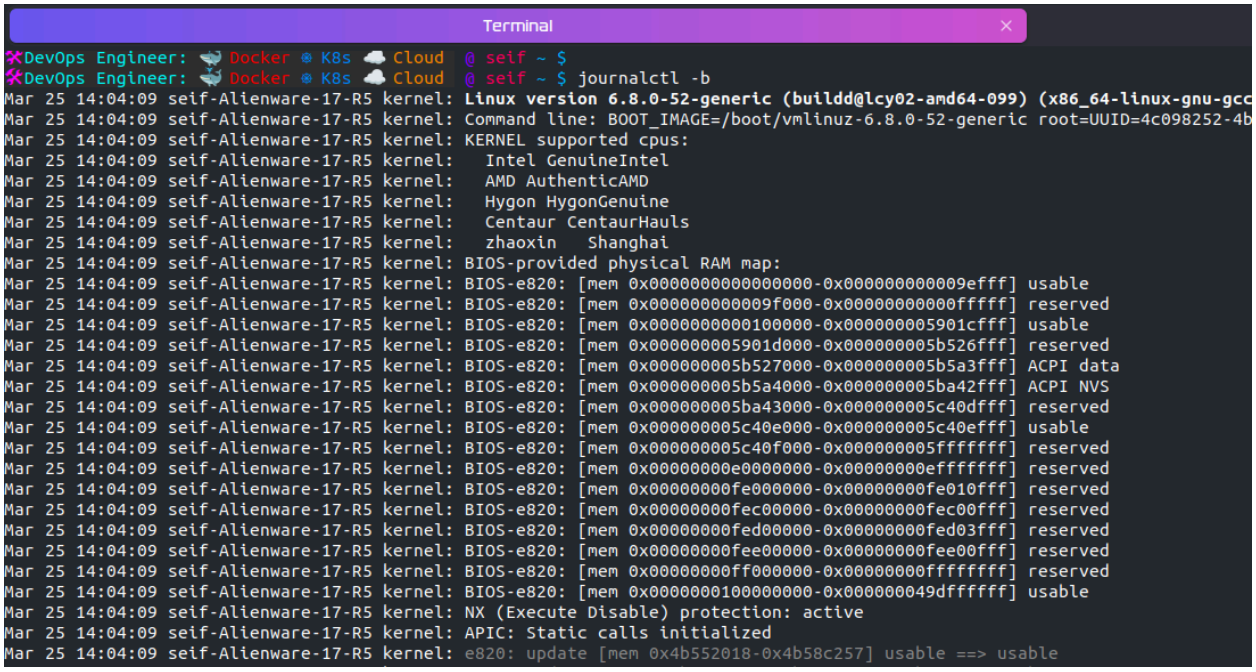
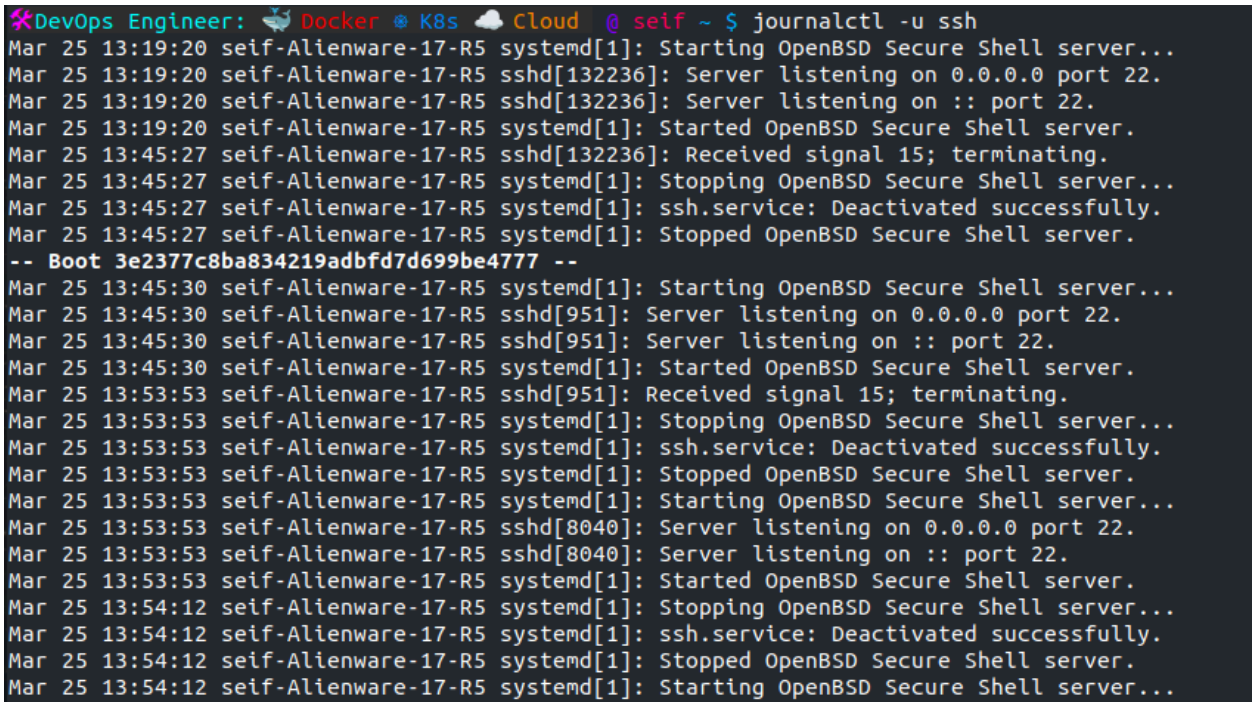
Q16. Display all logs from the current boot



Q17. View logs for the sshd service



Q18. Follow (live-tail) new log entries

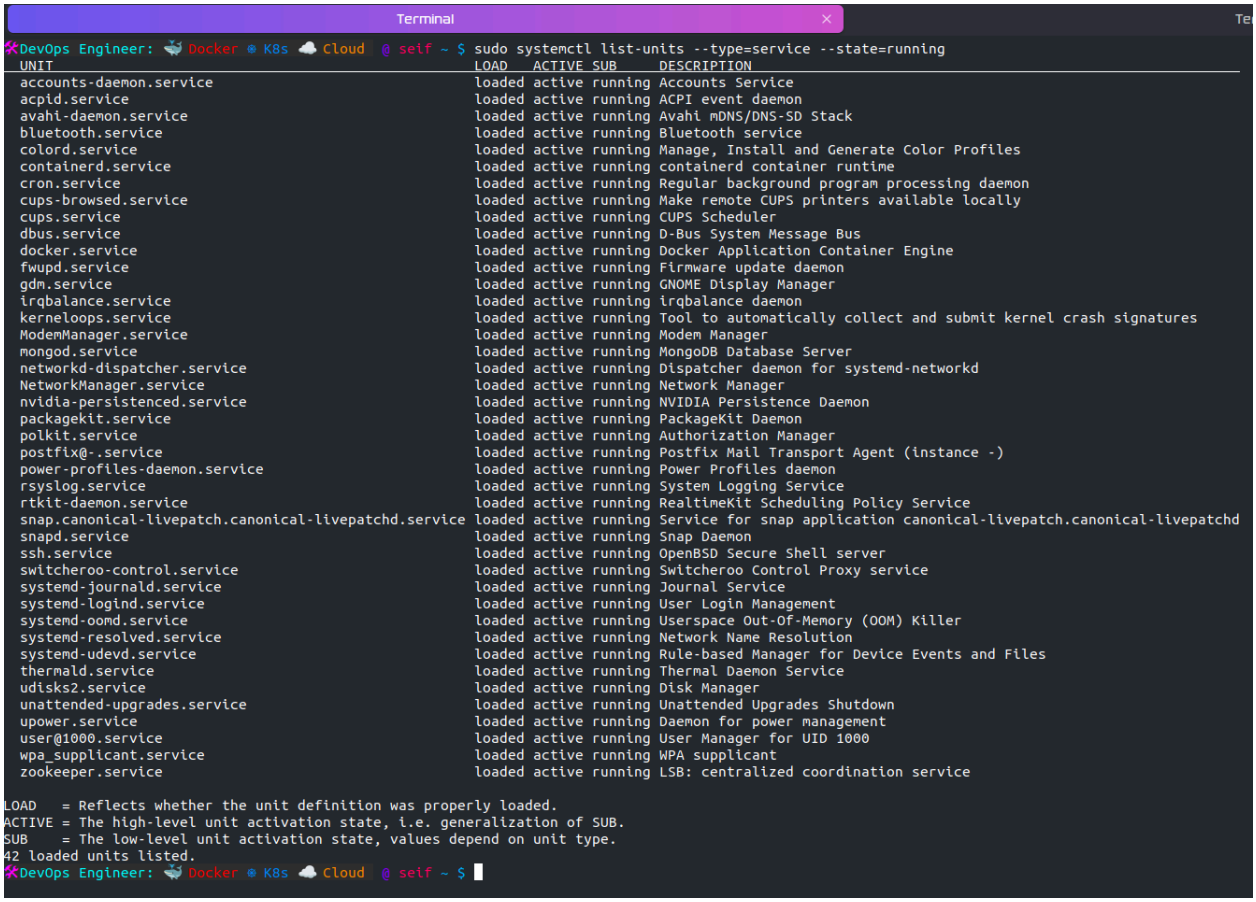
```
DevOps Engineer: Docker K8s Cloud @ self ~ $ journalctl -f
Mar 25 14:14:49 self-Alienware-17-R5 dbus-daemon[3231]: [session uid=1000 pid=3231] Activating via systemd: service name='org.freedesktop.Tr
ed by ':1.88' (uid=1000 pid=4062 comm="/usr/libexec/tracker-miner-fs-3 " label="unconfined")
Mar 25 14:14:49 self-Alienware-17-R5 systemd[3191]: Starting Tracker metadata extractor...
Mar 25 14:14:49 self-Alienware-17-R5 dbus-daemon[3231]: [session uid=1000 pid=3231] Successfully activated service 'org.freedesktop.Tracker3
Mar 25 14:14:49 self-Alienware-17-R5 systemd[3191]: Started Tracker metadata extractor.
Mar 25 14:14:49 self-Alienware-17-R5 org.flameshot.Flameshot.desktop[5988]: flameshot: info: Capture saved to clipboard.
Mar 25 14:14:51 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:14:51] trace refresh poll failed, retrying: Error getting authorizati
ending.
Mar 25 14:14:56 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:14:56] trace refresh poll failed, retrying: Error getting authorizati
ending.
Mar 25 14:15:01 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:01] trace refresh poll failed, retrying: Error getting authorizati
ending.
Mar 25 14:15:07 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:07] trace refresh poll failed, retrying: Error getting authorizati
ending.
Mar 25 14:15:12 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:12] trace refresh poll failed, retrying: Error getting authorizati
ending.

Mar 25 14:15:17 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:17] trace refresh poll failed, retrying: Error getting authorizati
ending.
Mar 25 14:15:19 self-Alienware-17-R5 dbus-daemon[3231]: [session uid=1000 pid=3231] Activating via systemd: service name='org.freedesktop.Tr
ed by ':1.88' (uid=1000 pid=4062 comm="/usr/libexec/tracker-miner-fs-3 " label="unconfined")
Mar 25 14:15:19 self-Alienware-17-R5 systemd[3191]: Starting Tracker metadata extractor...
Mar 25 14:15:19 self-Alienware-17-R5 dbus-daemon[3231]: [session uid=1000 pid=3231] Successfully activated service 'org.freedesktop.Tracker3
Mar 25 14:15:19 self-Alienware-17-R5 systemd[3191]: Started Tracker metadata extractor.
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]: ERROR: 2025-03-25 14:15:21,809: download_one_from() 'Could not download wallpape
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]: Traceback (most recent call last):
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]:   File "/usr/lib/python3/dist-packages/variety/VarietyWindow.py", line 1164, in
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]:     file = downloader.download_one()
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]:   File "/usr/lib/python3/dist-packages/variety/plugins/downloaders/DefaultDownlo
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]:     items = self.fill_queue()
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]:   File "/usr/lib/python3/dist-packages/variety/FlickrDownloader.py", line 163, i
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]:     raise Exception("Flickr returned error message: " + resp["message"])
Mar 25 14:15:21 self-Alienware-17-R5 variety.desktop[3782]: Exception: Flickr returned error message: Invalid API Key (Key has expired)
Mar 25 14:15:22 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:22] trace refresh poll failed, retrying: Error getting authorizati
ending.
Mar 25 14:15:24 self-Alienware-17-R5 variety.desktop[3782]: ERROR: 2025-03-25 14:15:24,097: download_one_from() 'Could not download wallpape
Mar 25 14:15:24 self-Alienware-17-R5 variety.desktop[3782]: Traceback (most recent call last):
Mar 25 14:15:24 self-Alienware-17-R5 variety.desktop[3782]:   File "/usr/lib/python3/dist-packages/variety/VarietyWindow.py", line 1164, in
Mar 25 14:15:24 self-Alienware-17-R5 variety.desktop[3782]:     file = downloader.download_one()
```

```
Mar 25 14:15:36 self-Alienware-17-R5 org.flameshot.Flameshot.desktop[5988]: flameshot: info: Capture saved to clipboard.
Mar 25 14:15:38 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:38] trace refresh poll failed, retrying: Error getting authorization: authorization_pending The authorization request is sti
ending.
Mar 25 14:15:43 self-Alienware-17-R5 code-tunnel[3198]: [2025-03-25 14:15:43] trace refresh poll failed, retrying: Error getting authorization: authorization_pending The authorization request is sti
ending.
^C^C
DevOps Engineer: Docker K8s Cloud @ self ~ $
```

Q19. Show logs from the last 30 minutes

```
Terminal                                                                    Terminal
DevOps Engineer: Docker K8s Cloud @ self ~ $ journalctl --since "30"
Failed to parse timestamp: 30
DevOps Engineer: Docker K8s Cloud @ self ~ $ journalctl --since "30 minutes"
Failed to parse timestamp: 30 minutes
DevOps Engineer: Docker K8s Cloud @ self ~ $ journalctl --since "30 minutes ago"
Mar 25 13:47:28 self-Alienware-17-R5 code-tunnel[2836]: [2025-03-25 13:47:28] trace refresh poll failed, retrying: Error getting authorization: authorization_pending The authorization request is still
Mar 25 13:47:34 self-Alienware-17-R5 code-tunnel[2836]: [2025-03-25 13:47:34] trace refresh poll failed, retrying: Error getting authorization: authorization_pending The authorization request is still
Mar 25 13:47:39 self-Alienware-17-R5 code-tunnel[2836]: [2025-03-25 13:47:39] trace refresh poll failed, retrying: Error getting authorization: authorization_pending The authorization request is still
Mar 25 13:47:43 self-Alienware-17-R5 sudo[3026]:     self : TTY=tty1 ; PWD=/home/self ; USER=root ; COMMAND=/usr/bin/systemctl isolate graphical.target
Mar 25 13:47:43 self-Alienware-17-R5 sudo[3026]: pam_unix(sudo:session): session opened for user root(uid=0) by self(uid=1000)
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Started Dispatch Password Requests to Console Directory Watch.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Condition check resulted in Timer to automatically fetch and run repair assertions being skipped.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Stopped target Bluetooth Support.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Condition check resulted in First Boot Complete being skipped.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Reached target User and Group Name Lookups.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Stopped target Sound Card.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Condition check resulted in Unix socket for apport crash forwarding being skipped.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: systemd-rfkill.socket: Deactivated successfully.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Closed Load/Save RF Kill Switch Status /dev/rfkill Watch.
Mar 25 13:47:43 self-Alienware-17-R5 systemd[1]: Starting Accounts Service...
```

Q20. List all running services


Terminal
DevOps Engineer: Docker K8s Cloud @ seif ~ $ sudo systemctl list-units --type=service --state=running
UNIT LOAD ACTIVE SUB DESCRIPTION
accounts-daemon.service loaded active running Accounts Service
acpid.service loaded active running ACPI event daemon
avahi-daemon.service loaded active running Avahi mDNS/DNS-SD Stack
bluetooth.service loaded active running Bluetooth service
colord.service loaded active running Manage, Install and Generate Color Profiles
containerd.service loaded active running containerd container runtime
cron.service loaded active running Regular background program processing daemon
cups-browsed.service loaded active running Make remote CUPS printers available locally
cups.service loaded active running CUPS Scheduler
dbus.service loaded active running D-Bus System Message Bus
docker.service loaded active running Docker Application Container Engine
fwupd.service loaded active running Firmware update daemon
gdm.service loaded active running GNOME Display Manager
irqbalance.service loaded active running irqbalance daemon
kerneloops.service loaded active running Tool to automatically collect and submit kernel crash signatures
ModemManager.service loaded active running Modem Manager
mongod.service loaded active running MongoDB Database Server
networkd-dispatcher.service loaded active running Dispatcher daemon for systemd-networkd
NetworkManager.service loaded active running Network Manager
nvidia-persistenced.service loaded active running NVIDIA Persistence Daemon
packagekit.service loaded active running PackageKit Daemon
polkit.service loaded active running Authorization Manager
postfix@-.service loaded active running Postfix Mail Transport Agent (instance -)
power-profiles-daemon.service loaded active running Power Profiles daemon
rsyslog.service loaded active running System Logging Service
rtkit-daemon.service loaded active running RealtimeKit Scheduling Policy Service
snap.canonical-livepatch.canonical-livepatchd.service loaded active running Service for snap application canonical-livepatch.canonical-livepatchd
snapd.service loaded active running Snap Daemon
ssh.service loaded active running OpenBSD Secure Shell server
switcheroo-control.service loaded active running Switcheroo Control Proxy service
systemd-journald.service loaded active running Journal Service
systemd-logind.service loaded active running User Login Management
systemd-oomd.service loaded active running Userspace Out-Of-Memory (OOM) Killer
systemd-resolved.service loaded active running Network Name Resolution
systemd-udevd.service loaded active running Rule-based Manager for Device Events and Files
thermald.service loaded active running Thermal Daemon Service
udisks2.service loaded active running Disk Manager
unattended-upgrades.service loaded active running Unattended Upgrades Shutdown
upower.service loaded active running Daemon for power management
user@1000.service loaded active running User Manager for UID 1000
wpa_supplicant.service loaded active running WPA supplicant
zookeeper.service loaded active running LSB: centralized coordination service
LOAD = Reflects whether the unit definition was properly loaded.
ACTIVE = The high-level unit activation state, i.e. generalization of SUB.
SUB = The low-level unit activation state, values depend on unit type.
42 loaded units listed.
DevOps Engineer: Docker K8s Cloud @ seif ~ $

Q21. Create Customer Service