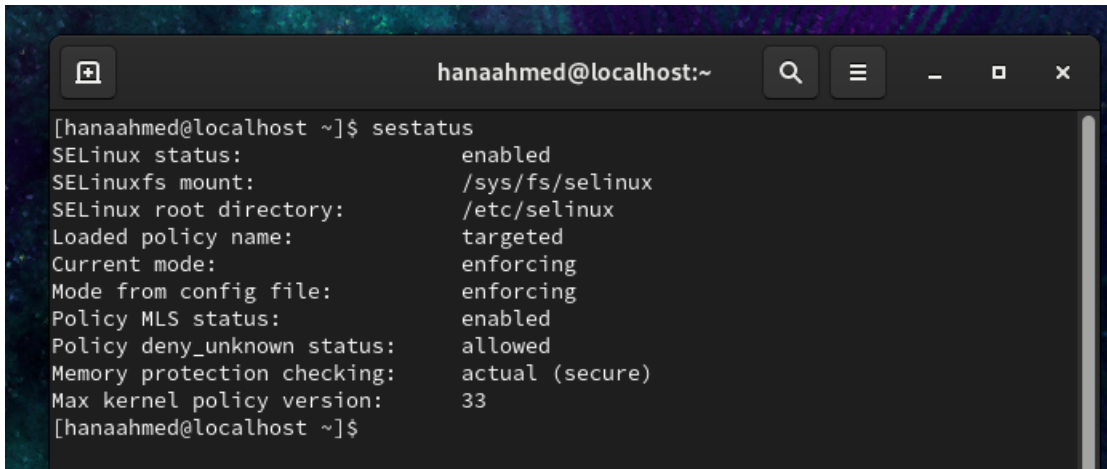1. What command would you use to check the current status of SELinux?

```
[hanaahmed@localhost ~]$ sestatus
SELinux status:                 enabled
SELinuxfs mount:                /sys/fs/selinux
SELinux root directory:         /etc/selinux
Loaded policy name:             targeted
Current mode:                   enforcing
Mode from config file:          enforcing
Policy MLS status:              enabled
Policy deny_unknown status:     allowed
Memory protection checking:     actual (secure)
Max kernel policy version:      33
[hanaahmed@localhost ~]$
```
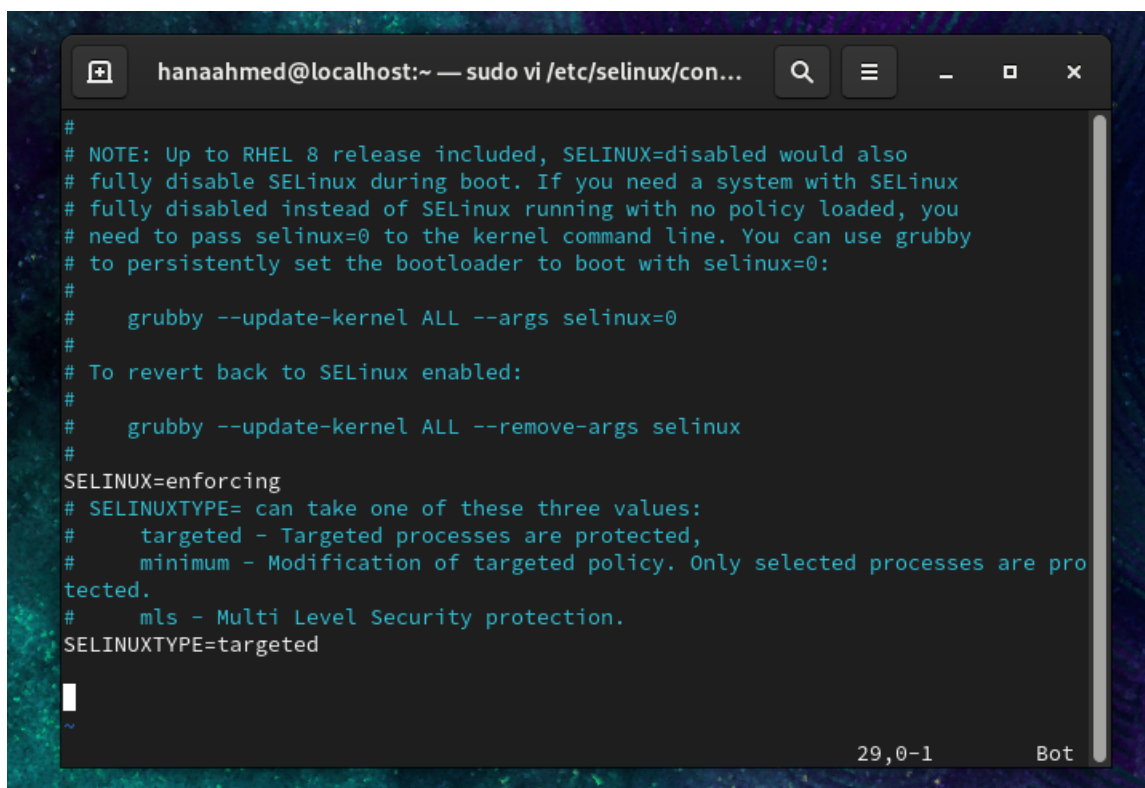
2. How can you view the SELinux mode (enforcing, permissive, or disabled)?

```
[hanaahmed@localhost ~]$ getenforce
Enforcing
```

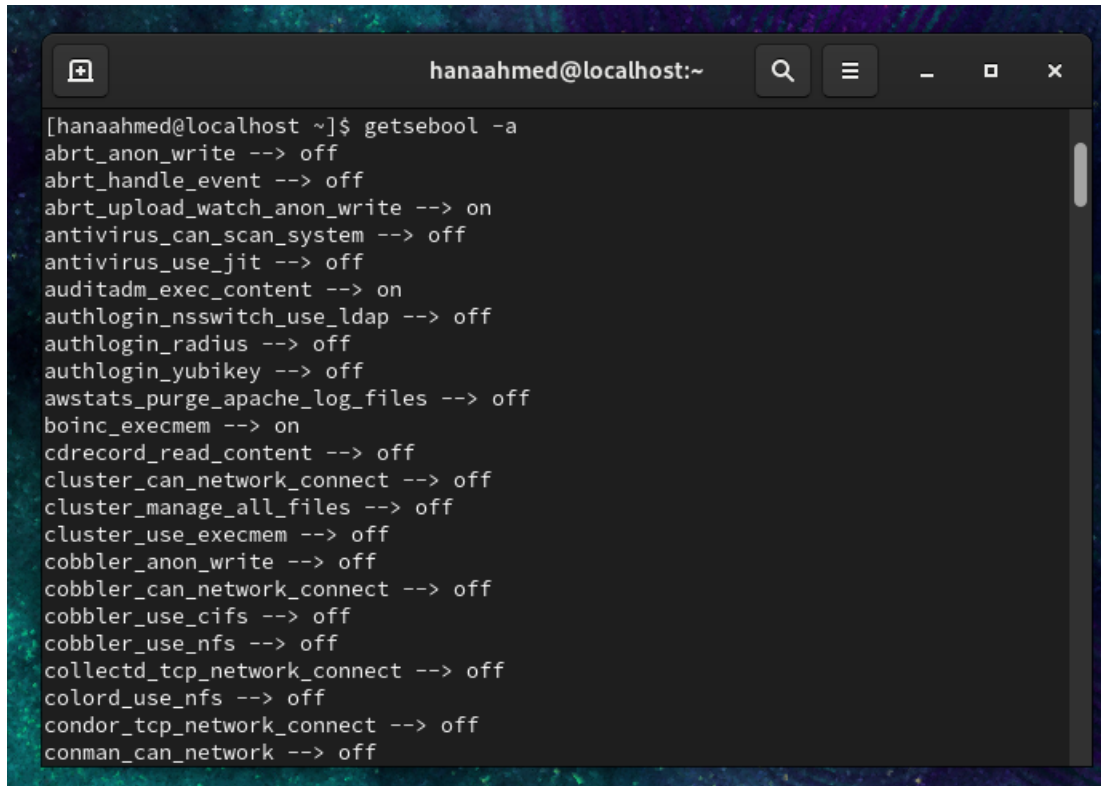3. What command would you use to temporarily set SELinux to permissive mode?

[hanaahmed@localhost ~]$ sudo setenforce 0

[sudo] password for hanaahmed:

4. How do you permanently set SELinux to enforcing mode by editing the

configuration file?

```
#
# NOTE: Up to RHEL 8 release included, SELINUX=disabled would also
# fully disable SELinux during boot. If you need a system with SELinux
# fully disabled instead of SELinux running with no policy loaded, you
# need to pass selinux=0 to the kernel command line. You can use grubby
# to persistently set the bootloader to boot with selinux=0:
#
#     grubby --update-kernel ALL --args selinux=0
#
# To revert back to SELinux enabled:
#
#     grubby --update-kernel ALL --remove-args selinux
#
SELINUX=enforcing
# SELINUXTYPE= can take one of these three values:
#     targeted - Targeted processes are protected,
#     minimum - Modification of targeted policy. Only selected processes are pro
tected.
#     mls - Multi Level Security protection.
SELINUXTYPE=targeted


                                                        29,0-1          Bot
```

5. What command would you use to list all SELinux booleans?

```
[hanaahmed@localhost ~]$ getsebool -a
abrt_anon_write --> off
abrt_handle_event --> off
abrt_upload_watch_anon_write --> on
antivirus_can_scan_system --> off
antivirus_use_jit --> off
auditadm_exec_content --> on
authlogin_nsswitch_use_ldap --> off
authlogin_radius --> off
authlogin_yubikey --> off
awstats_purge_apache_log_files --> off
boinc_execmem --> on
cdrecord_read_content --> off
cluster_can_network_connect --> off
cluster_manage_all_files --> off
cluster_use_execmem --> off
cobbler_anon_write --> off
cobbler_can_network_connect --> off
cobbler_use_cifs --> off
cobbler_use_nfs --> off
collectd_tcp_network_connect --> off
colord_use_nfs --> off
condor_tcp_network_connect --> off
conman_can_network --> off
```

6. How can you enable a specific SELinux boolean (e.g.,

httpd_can_network_connect)?

[hanaahmed@localhost ~]$ sudo setsebool -P httpd_can_network_connect on

[sudo] password for hanaahmed:

7. What command would you use to check the SELinux context of a file?

```
zoneminder_run_sudo --> off
[hanaahmed@localhost ~]$ sudo setsebool -P httpd_can_network_connect on
[sudo] password for hanaahmed:
[hanaahmed@localhost ~]$ ls
Desktop   directory  docs-1      Documents  file1  myfile.txt  Public      testdir
dir1      dir-test   documents   Downloads  Music  Pictures    Templates   Videos
[hanaahmed@localhost ~]$ ls -Z
 unconfined_u:object_r:user_home_t:s0 Desktop
 unconfined_u:object_r:user_home_t:s0 dir1
 unconfined_u:object_r:user_home_t:s0 directory
 unconfined_u:object_r:user_home_t:s0 dir-test
 unconfined_u:object_r:user_home_t:s0 docs-1
 unconfined_u:object_r:user_home_t:s0 documents
 unconfined_u:object_r:user_home_t:s0 Documents
 unconfined_u:object_r:user_home_t:s0 Downloads
 unconfined_u:object_r:user_home_t:s0 file1
unconfined_u:object_r:audio_home_t:s0 Music
 unconfined_u:object_r:user_home_t:s0 myfile.txt
 unconfined_u:object_r:user_home_t:s0 Pictures
 unconfined_u:object_r:user_home_t:s0 Public
 unconfined_u:object_r:user_home_t:s0 Templates
 unconfined_u:object_r:user_home_t:s0 testdir
 unconfined_u:object_r:user_home_t:s0 Videos
[hanaahmed@localhost ~]$ 
```

8. How can you change the SELinux context of a file to a specific type (e.g., httpd_sys_content_t)?

hanaahmed@localhost ~]$ touch file-test

[hanaahmed@localhost ~]$ sudo chcon -t httpd_sys_content_t file-test

9. What command can be used to restore the default SELinux context of files in a directory?

[hanaahmed@localhost ~]$ sudo restorecon -Rv directory

10.How do you list all active zones in firewalld?

[hanaahmed@localhost ~]$ firewall-cmd --get-active-zones

public

 interfaces: ens33

11. What command would you use to view the current rules in the public zone?

[hanaahmed@localhost ~]$ firewall-cmd --zone=public --list-all

public (active)

 target: default

 icmp-block-inversion: no

 interfaces: ens33

 sources:

 services: cockpit dhcpv6-client ssh

 ports:

 protocols:

 forward: yes

 masquerade: no

 forward-ports:

 source-ports:

 icmp-blocks:

 rich rules:

12.How can you add a new service (e.g., HTTP) to the public zone?

[hanaahmed@localhost ~]$ sudo firewall-cmd --zone=public --add-service=http --permanent

[sudo] password for hanaahmed:

Success

13.What command removes a service (e.g., HTTPS) from the public zone?

[hanaahmed@localhost ~]$ sudo firewall-cmd --zone=public --remove-service=https --permanent

Warning: NOT_ENABLED: https

success

14.How do you allow a specific port (e.g., 8080) in the public zone?

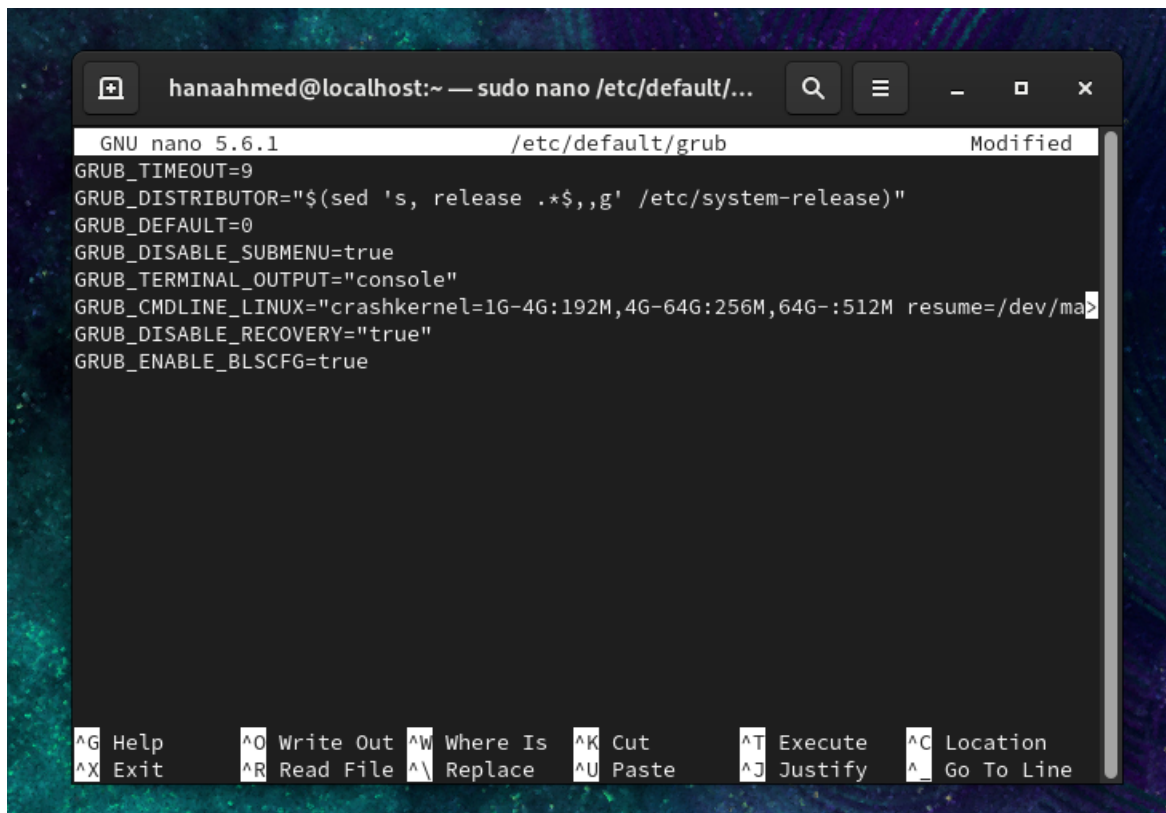[hanaahmed@localhost ~]$ sudo firewall-cmd --zone=public --add-port=8080/tcp --permanent

success

15.How can you view the default zone used by firewalld?

[hanaahmed@localhost ~]$ firewall-cmd --get-default-zone

public

16.How to change the GRUB timeout value? How to set the default boot entry in GRUB?

17. How to regenerate the GRUB configuration file after modifying /etc/default/grub?
[hanaahmed@localhost ~]$ sudo grub2-mkconfig -o /boot/grub2/grub.cfg

[sudo] password for hanaahmed:

Generating grub configuration file ...

Adding boot menu entry for UEFI Firmware Settings ...

done