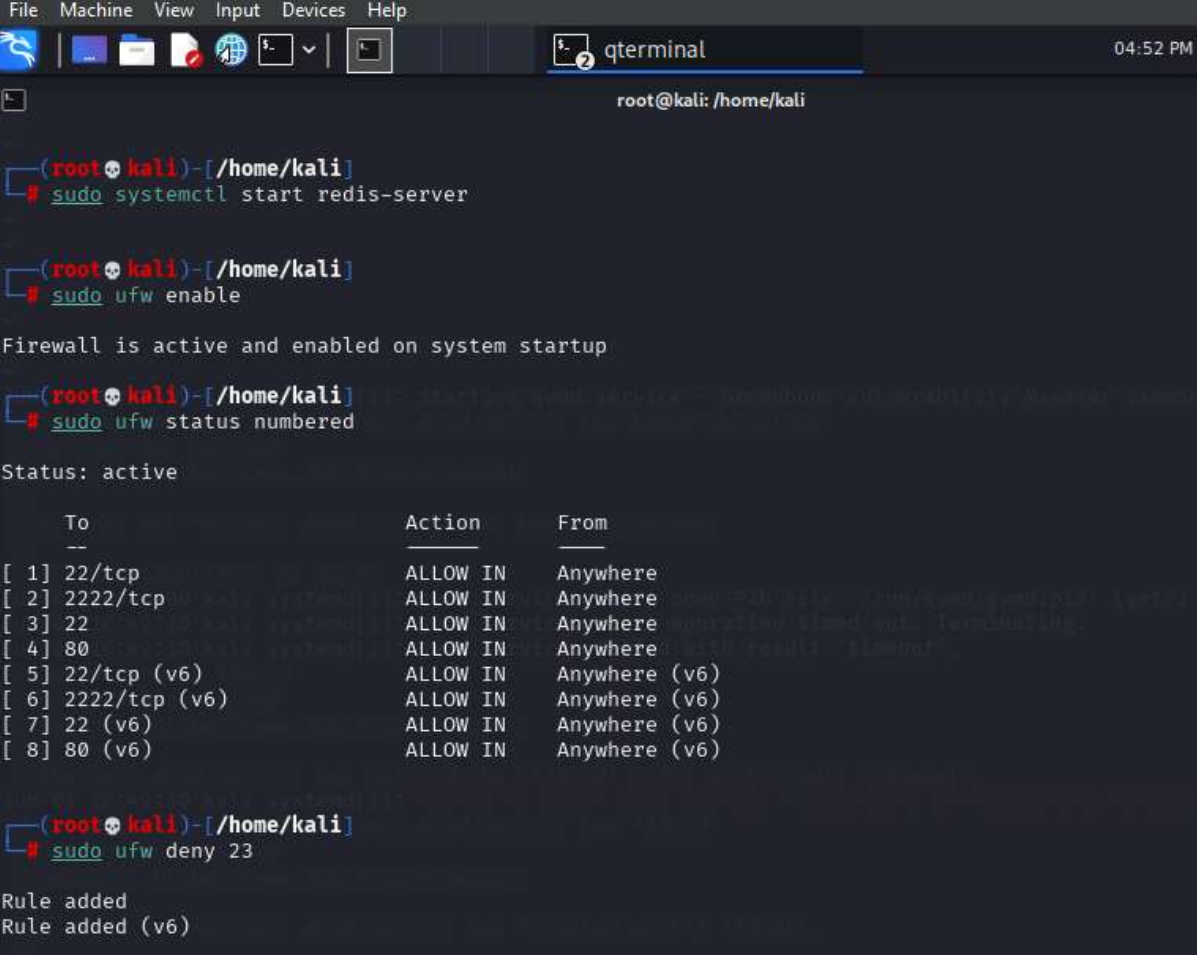


## Objective:

To configure and test basic UFW firewall rules on Kali Linux to allow or block specific network traffic.

## Tools Used:

- **Operating System:** Kali Linux
- **Firewall:** UFW (Uncomplicated Firewall)
- **Service tested:** Telnet (port 23), SSH (port 22)

A screenshot of a Kali Linux terminal window. The window has a title bar with 'qterminal' and a timestamp '04:52 PM'. The terminal shows a root user at the kali machine in the /home/kali directory. The user runs 'sudo systemctl start redis-server', then 'sudo ufw enable'. A message states 'Firewall is active and enabled on system startup'. Then, 'sudo ufw status numbered' is run, displaying a table of active rules. Finally, 'sudo ufw deny 23' is run, adding a deny rule for port 23.

```
(root@kali)~/home/kali
# sudo systemctl start redis-server

(root@kali)~/home/kali
# sudo ufw enable

Firewall is active and enabled on system startup

(root@kali)~/home/kali
# sudo ufw status numbered

Status: active

      To      Action      From
--      -
[ 1] 22/tcp    ALLOW IN    Anywhere
[ 2] 2222/tcp   ALLOW IN    Anywhere
[ 3] 22         ALLOW IN    Anywhere
[ 4] 80         ALLOW IN    Anywhere
[ 5] 22/tcp (v6) ALLOW IN    Anywhere (v6)
[ 6] 2222/tcp (v6) ALLOW IN    Anywhere (v6)
[ 7] 22 (v6)    ALLOW IN    Anywhere (v6)
[ 8] 80 (v6)    ALLOW IN    Anywhere (v6)

(root@kali)~/home/kali
# sudo ufw deny 23

Rule added
Rule added (v6)
```

```

File Machine View Input Devices Help
qtterminal
root@kali: /home/kali

telnet: Unable to connect to remote host: Connection refused

(root@kali)-[/home/kali]
# sudo apt install telnet

Installing:
telnet

Summary:
  Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 871
  Download size: 43.2 kB
  Space needed: 56.3 kB / 61.0 GB available

Get:1 http://kali.download/kali kali-rolling/main amd64 telnet all 0.17+2.6-1 [43.2 kB]
Fetched 43.2 kB in 0s (90.6 kB/s)
Selecting previously unselected package telnet.
(Reading database ... 390605 files and directories currently installed.)
Preparing to unpack .../telnet_0.17+2.6-1_all.deb ...
Unpacking telnet (0.17+2.6-1) ...
Setting up telnet (0.17+2.6-1) ...

(root@kali)-[/home/kali]
# sudo ufw allow 22

Skipping adding existing rule
Skipping adding existing rule (v6)

(root@kali)-[/home/kali]
# sudo ufw delete deny 23

Rule deleted
Rule deleted (v6)

(root@kali)-[/home/kali]
# sudo ufw status verbose

Status: active
Logging: on (low)
Default: deny (incoming), allow (outgoing), disabled (routed)
New profiles: skip

To: Action From
--
22/tcp ALLOW IN Anywhere
2222/tcp ALLOW IN Anywhere
22 ALLOW IN Anywhere
80 ALLOW IN Anywhere
22/tcp (v6) ALLOW IN Anywhere (v6)
2222/tcp (v6) ALLOW IN Anywhere (v6)
22 (v6) ALLOW IN Anywhere (v6)
80 (v6) ALLOW IN Anywhere (v6)

```

**UFW** is a front-end to **iptables** used to simplify firewall rule management.

It blocks or allows traffic based on port and protocol.

In this task:

- **Blocked port 23** to prevent Telnet connections (confirmed using telnet test).
- **Allowed port 22** for SSH (already allowed)

After testing, **restored original state** by removing the Telnet block.