Task 4: Setup and Use a Firewall on Linux (UFW)

Submitted by: Ramya M

Date: June 27, 2025

Objective:

To configure and test basic firewall rules using UFW (Uncomplicated Firewall) in Kali Linux.

Steps Performed:

Enabled UFW Firewall:

```
sudo ufw enable
```

Firewall is active and enabled on system startup

Checked Current Rules:

```
sudo ufw status numbered
```

Allow rules already existed for SSH (Port 22)

Blocked Inbound Traffic on Port 23 (Telnet):

```
sudo ufw deny 23
```

Rule added to deny TCP traffic on port 23 (IPv4 and IPv6)

Tested the Rule:

Used telnet or attempted to connect to port 23.

Result: Traffic was blocked.

Allowed SSH Access (Port 22):

```
sudo ufw allow 22
```

Rule already existed, skipped re-adding.

Deleted the Block Rule on Port 23:

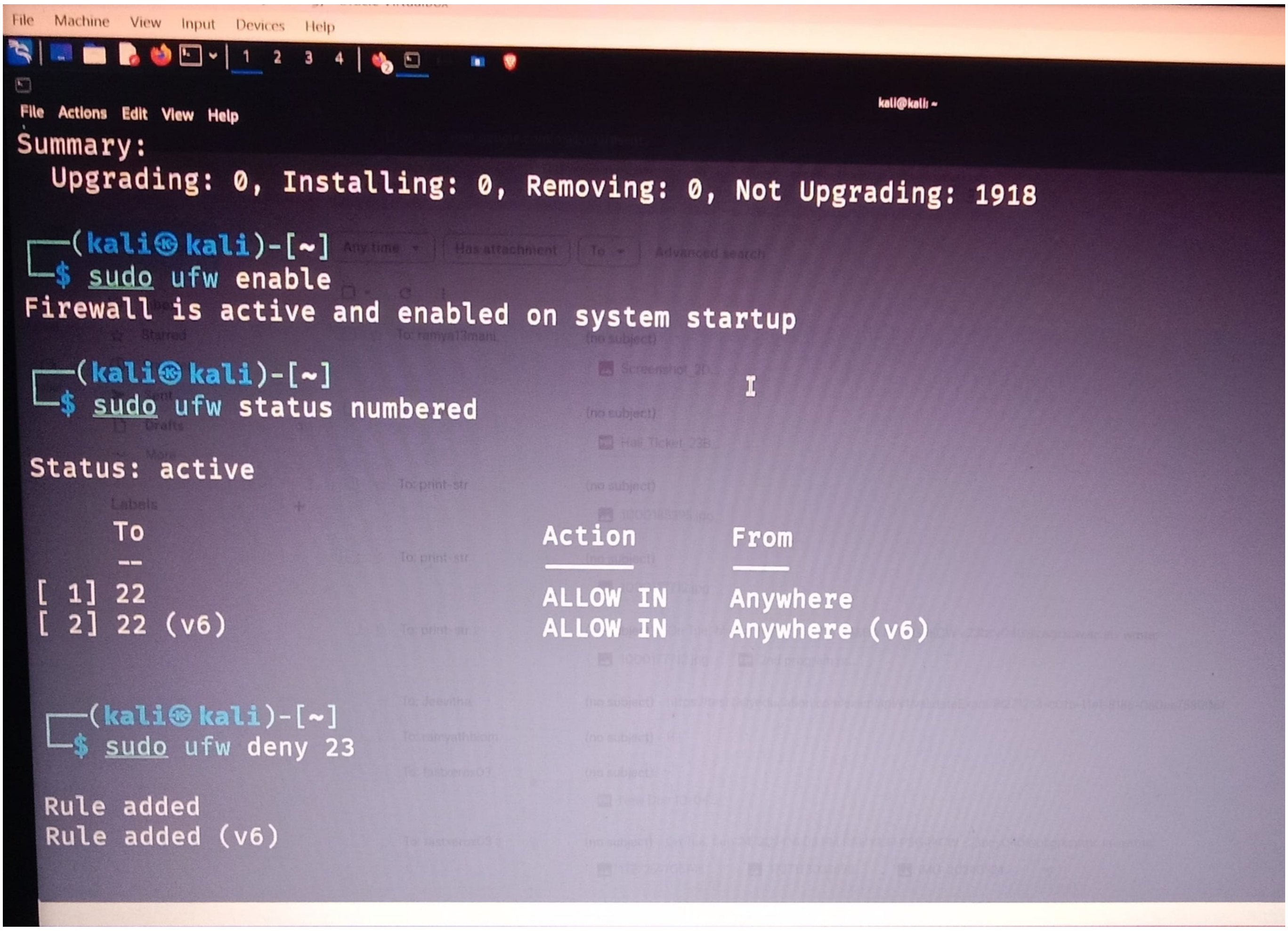
```
sudo ufw delete deny 23
```

Rule deleted successfully for IPv4 and IPv6.

Final Summary:

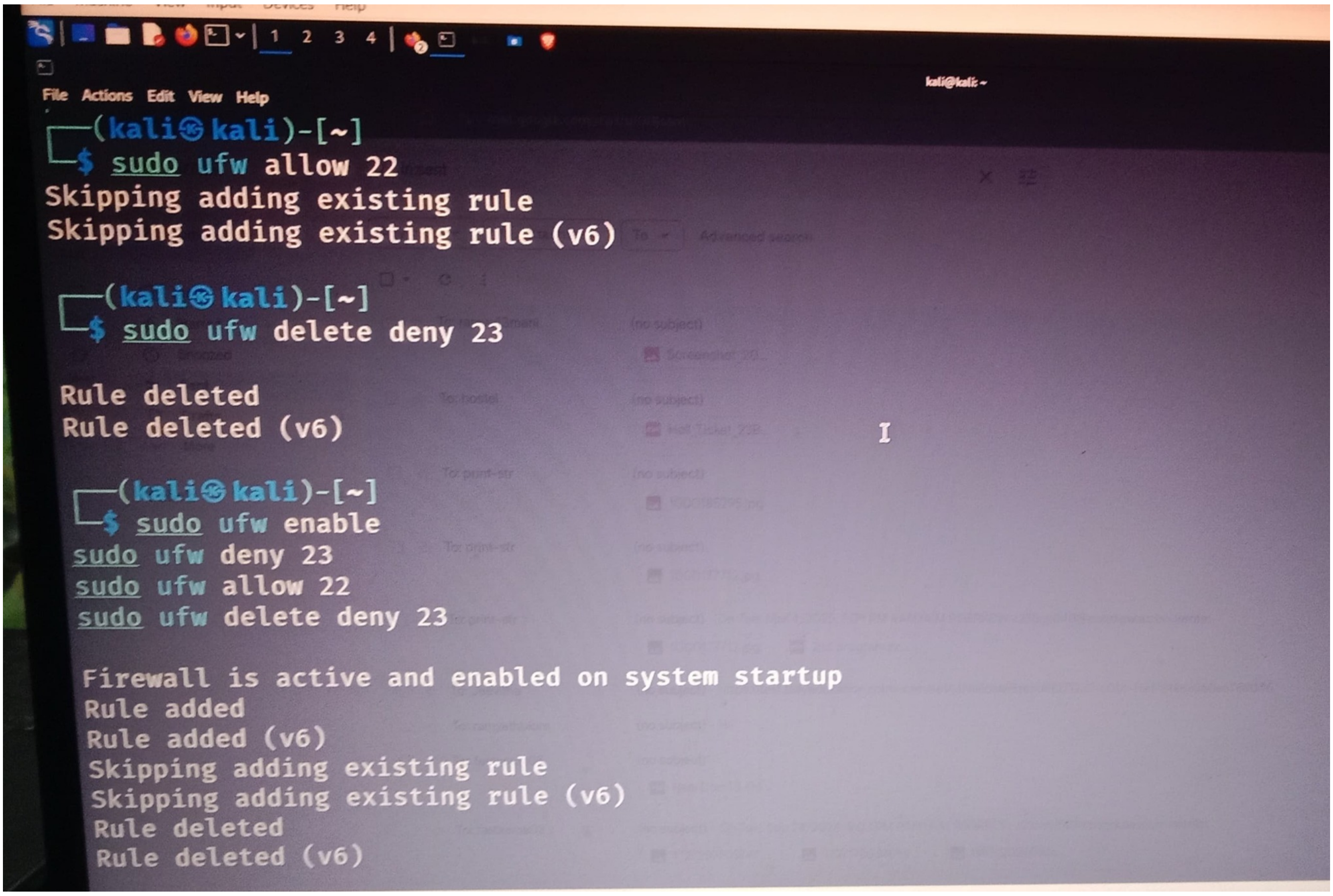
UFW was used to control access to specific ports. I blocked port 23 (Telnet) to demonstrate rule enforcement and later deleted it. Port 22 (SSH) was allowed to keep remote access functional. This shows how firewalls filter network traffic using port-based rules.

Screenshots:



File Machine View Input Devices Help
File Actions Edit View Help
kali@kali: ~

```
Summary:
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 1918

┌──(kali㉿kali)-[~]
└─$ sudo ufw enable
Firewall is active and enabled on system startup

┌──(kali㉿kali)-[~]
└─$ sudo ufw status numbered

Status: active

     To                         Action      From
     --                         ------      ----
[ 1] 22                         ALLOW IN    Anywhere
[ 2] 22 (v6)                    ALLOW IN    Anywhere (v6)


┌──(kali㉿kali)-[~]
└─$ sudo ufw deny 23

Rule added
Rule added (v6)
```



```
┌──(kali㉿kali)-[~]
└─$ sudo ufw allow 22
Skipping adding existing rule
Skipping adding existing rule (v6)

┌──(kali㉿kali)-[~]
└─$ sudo ufw delete deny 23

Rule deleted
Rule deleted (v6)

┌──(kali㉿kali)-[~]
└─$ sudo ufw enable
sudo ufw deny 23
sudo ufw allow 22
sudo ufw delete deny 23

Firewall is active and enabled on system startup
Rule added
Rule added (v6)
Skipping adding existing rule
Skipping adding existing rule (v6)
Rule deleted
Rule deleted (v6)
```