

Task 2: Basic Firewall Configuration with UFW

FOR ENABLING UFW AND DENYING SSH

Objective: Set up a basic firewall using **UFW** (Uncomplicated Firewall) on a Linux system.

- **Tools:** UFW (Uncomplicated Firewall)

Working:

1. Install UFW on my system

```
saurav@saurav-VirtualBox:~$ sudo apt update
sudo apt install ufw -y
[sudo] password for saurav:
Sorry, try again.
[sudo] password for saurav:
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://in.archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://in.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ufw is already the newest version (0.36.2-6).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
saurav@saurav-VirtualBox:~$
```

By using command: **sudo apt update** for updating package and
Sudo apt install ufw -y for installing firewall.

Step 2 – Enable the Firewall

```
saurav@saurav-VirtualBox:~$ sudo ufw enable
Firewall is active and enabled on system startup
saurav@saurav-VirtualBox:~$ sudo ufw allow ssh
```

By using command: **sudo ufw enable** , it will enable the firewall for protection

Step 3 – Allow SSH

```
saaurav@saaurav-VirtualBox:~$ sudo ufw allow ssh
Skipping adding existing rule
Skipping adding existing rule (v6)
```

as ssh was already allowed and it came in the existing rule so , it has skipped adding that , but if it wasnt in existing rule it would have added in the rule.

Command: `sudo ufw allow ssh`

Step 4 – Deny HTTP

```
saaurav@saaurav-VirtualBox:~$ sudo ufw deny http
Skipping adding existing rule
Skipping adding existing rule (v6)
```

This above is the command for denying http whose output we can see as skipped because that rule was already present , but if the rule want presented it will add that in the rule .The deny of http mean block the incomings on web server i.e on port number 80.

Step 5 – Check Status

```
saaurav@saaurav-VirtualBox:~$ 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
80/tcp DENY IN Anywhere
22/tcp (v6) ALLOW IN Anywhere (v6)
80/tcp (v6) DENY IN Anywhere (v6)
```

Above is the screenshot of the status of added rules and where we know 22 is the port for ssh and 80 for http , so 22 port is allowed and 80 has been blocked.

That's how you set up a basic firewall with UFW on Ubuntu. This configuration allows remote management via SSH while blocking HTTP traffic for security.