

Installing and Using UFW Firewall in Kali Linux

Step-by-step Guide: Install UFW on Kali Linux

1. Update Package List:

```
sudo apt update
```

2. Install UFW:

```
sudo apt install ufw -y
```

3. Enable UFW:

```
sudo ufw enable
```

4. Check UFW Status:

```
sudo ufw status verbose
```

Basic UFW Commands with Examples

- Allow SSH (Port 22):

```
sudo ufw allow ssh
```

or

```
sudo ufw allow 22/tcp
```

- Allow HTTP (Port 80):

```
sudo ufw allow http
```

- Allow HTTPS (Port 443):

```
sudo ufw allow https
```

- Deny All Incoming by Default (Safe for secure setup):

```
sudo ufw default deny incoming
```

```
sudo ufw default allow outgoing
```

- Block a Specific Port (e.g., FTP port 21):

```
sudo ufw deny 21
```

- Allow a Range of Ports (e.g., 1000-2000):

```
sudo ufw allow 1000:2000/tcp
```

Example Scenario for Cybersecurity Students:

You're running Apache2 on Kali Linux (port 80). You want to allow:

- SSH for remote management
- HTTP for your web service
- Block all other services

Commands:

```
sudo ufw default deny incoming
```

```
sudo ufw default allow outgoing
```

```
sudo ufw allow ssh
```

```
sudo ufw allow http
```

```
sudo ufw enable
```

```
sudo ufw status verbose
```

Sample Output:

Status: active

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

To Disable UFW:

sudo ufw disable