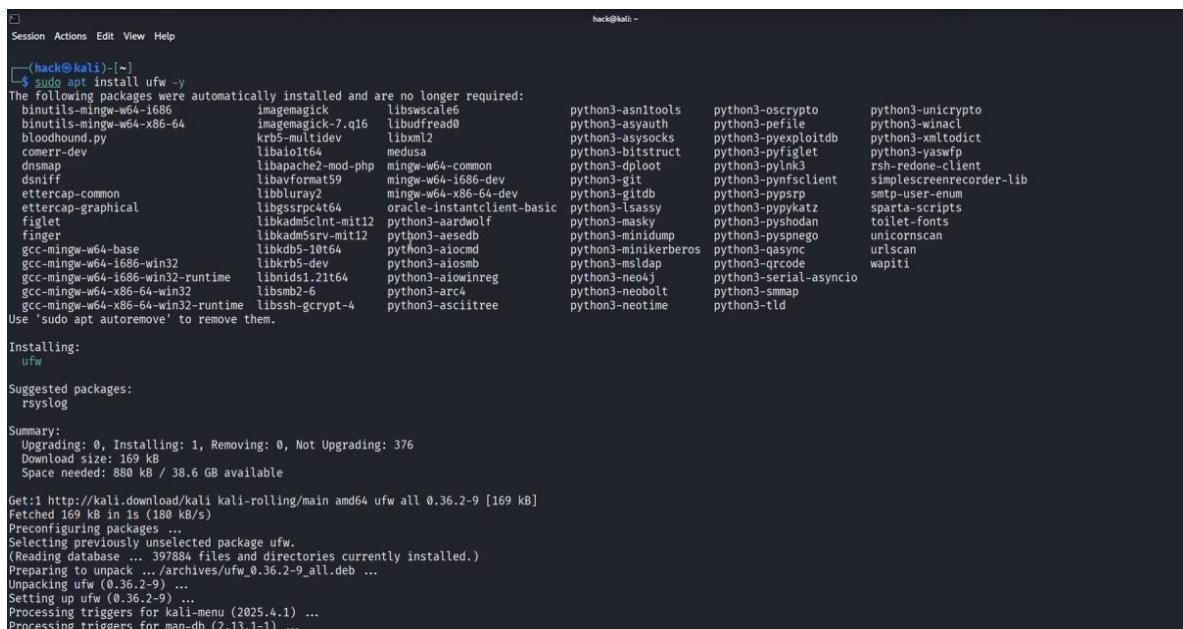


Task 2: Basic Firewall Configuration with UFW

INSTALL UFW:

To install **UFW (Uncomplicated Firewall)** on a Linux system, first update your package list using the command `sudo apt update`. Then install UFW by running `sudo apt install ufw -y`. Before turning it on, it's important to allow SSH connections (especially if you are connected remotely) using `sudo ufw allow ssh`. After that, enable the firewall with `sudo ufw enable`. You can then verify its status with `sudo ufw status verbose` or check the version using `ufw version`. This setup ensures that UFW is properly installed, running, and configured with safe access to your system via SSH.



The screenshot shows a terminal window titled 'Session Actions Edit View Help' with the command prompt 'hack@kali:~\$'. The user runs the command `sudo apt install ufw -y`. The output shows that several packages are being removed as they are no longer required, including binutils-mingw-w64-1686, imagemagick, krb5-multidev, libcurl4-openssl-dev, libxml2, medusa, mingw-w64-common, mingw-w64-dev, python3-distro, python3-pyfiglet, python3-pylnk3, python3-pynfsclient, python3-pysrp, python3-pypykatz, python3-pyshodan, python3-pysnego, python3-qasync, python3-qrcode, python3-serial-asyncio, python3-smmap, and python3-tld. The user is then prompted to run 'sudo apt autoremove' to remove them. The next section shows the installation of ufw, with 'Installing: ufw' and 'Suggested packages: rsyslog'. A summary follows, indicating 0 upgrades, 1 install, 0 removes, and 376 dependencies. The download size is 169 KB and space needed is 880 KB / 38.6 GB available. The final output shows the download of ufw from http://kali.download/kali-kali-rolling/main amd64 ufw all 0.36.2-9 [169 kB], preconfiguring packages, selecting previously unselected package ufw, preparing to unpack archives/ufw_0.36.2-9_all.deb, unpacking ufw, setting up ufw, processing triggers for kali-menu (2025.4.1), and processing triggers for man-db (2.13.1-1).

```
Session Actions Edit View Help
hack@kali:~$ sudo apt install ufw -y
The following packages were automatically installed and are no longer required:
binutils-mingw-w64-1686  imagemagick  libcurl4-openssl-dev  python3-asn1tools  python3-oscrypto  python3-unicrypto
binutils-mingw-w64-x86-64  krb5-multidev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-asyauth  python3-winac
bloodhound.py  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-asysocks  python3-xmldict
comer-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-bitstruct  python3-yaswfp
dnsmap  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-dploot  rsh-redone-client
dniff  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-git  simplescreencorder-lib
ettercap-common  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-gitdb  smtp-user-enum
ettercap-graphical  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-pynfsclient  sparta-scripts
figlet  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-lsassy  toilet-fonts
finger  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-masky  unicorncan
gcc-mingw-w64-base  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-minidump  urlscan
gcc-mingw-w64-1686-win32  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-minikrb5  wapiti
gcc-mingw-w64-1686-win32-runtime  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-msldap
gcc-mingw-w64-x86-64-win32  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-neo4j
gcc-mingw-w64-x86-64-win32-runtime  libcurl4-openssl-dev  libcurl4-openssl-dev  libcurl4-openssl-dev  python3-neobolt
Use 'sudo apt autoremove' to remove them.

Installing:
  ufw

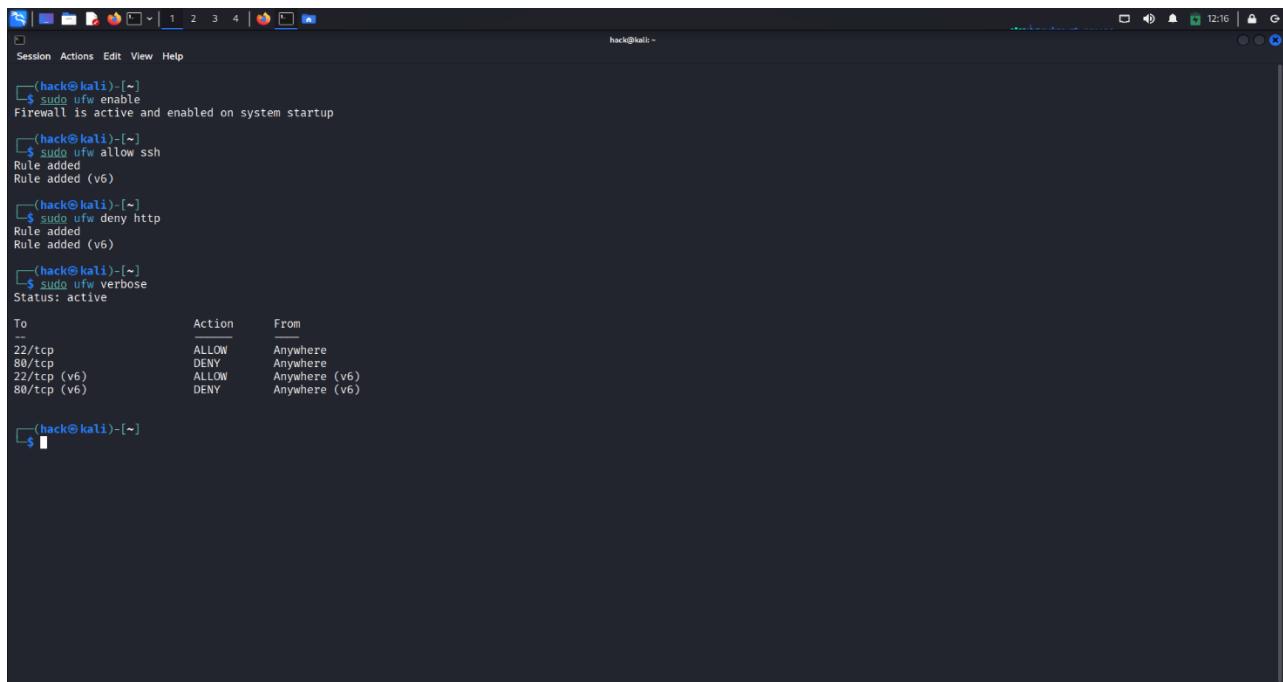
Suggested packages:
  rsyslog

Summary:
  Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 376
  Download size: 169 KB
  Space needed: 880 KB / 38.6 GB available

Get:1 http://kali.download/kali-kali-rolling/main amd64 ufw all 0.36.2-9 [169 kB]
Fetched 169 kB in 1s (169 kB/s)
Preconfiguring packages ...
Selecting previously unselected package ufw.
(Reading database ... 397884 files and directories currently installed.)
Preparing to unpack .../archives/ufw_0.36.2-9_all.deb ...
Unpacking ufw (0.36.2-9) ...
Setting up ufw (0.36.2-9) ...
Processing triggers for kali-menu (2025.4.1) ...
Processing triggers for man-db (2.13.1-1) ...
```

SETTING UP UFW:

After installing UFW, you can begin configuring your firewall rules to control network traffic. Start by allowing essential services such as SSH using `sudo ufw allow ssh` to ensure remote access remains available. You can then deny or allow other ports based on your security needs—for example, `sudo ufw deny http` to block web traffic. Once your rules are set, enable the firewall with `sudo ufw enable` and verify the configuration using `sudo ufw status verbose`. This ensures that your system is protected and only trusted connections are allowed.



The screenshot shows a terminal window on a Kali Linux desktop environment. The terminal output is as follows:

```
Session Actions Edit View Help
[~] hack@kali: ~
$ sudo ufw enable
Firewall is active and enabled on system startup
[~] hack@kali: ~
$ sudo ufw allow ssh
Rule added
Rule added (v6)
[~] hack@kali: ~
$ sudo ufw deny http
Rule added
Rule added (v6)
[~] hack@kali: ~
$ sudo ufw verbose
Status: active
To          Action      From
--          --          --
22/tcp      ALLOW       Anywhere
80/tcp      DENY        Anywhere
22/tcp (v6) ALLOW       Anywhere (v6)
80/tcp (v6) DENY        Anywhere (v6)

[~] $
```