

POC TASK 3

1)

```
(kali@kali)-[~]  
$ sudo apt install apache2 -y  
apache2 is already the newest version (2.4.63-1).  
apache2 set to manually installed.  
Summary:  
  Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 1549
```

Step 1: Update Your System (Recommended)

bash

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```
sudo apt update && sudo apt upgrade -y
```

This ensures your package lists and installed packages are up-to-date.

Step 2: Install Apache2

bash

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```
sudo apt install apache2 -y
```

- -y automatically confirms the installation.

Step 3: Verify Installation

Check the installed version:

bash

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```
apache2 -v
```

If installed successfully, it should return something like:

pgsql

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```
Server version: Apache/2.4.63 (Debian)
```

```
Server built: YYYY-MM-DD
```

Step 4: Start & Enable Apache Service

Start the Apache2 service:

bash

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`sudo systemctl start apache2`

Enable it to start on boot:

`bash`

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`sudo systemctl enable apache2`

Check if Apache is running:

`bash`

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`sudo systemctl status apache2`

2)

```
(kali@kali)-[~]
└─$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: disabled)
   Active: active (running) since Sat 2025-03-22 23:28:58 EDT; 34min ago
     Invocation: d24056e3050f4fbda529ca80e722c6be
       Docs: https://httpd.apache.org/docs/2.4/
    Main PID: 731 (apache2)
      Tasks: 6 (limit: 3425)
     Memory: 21.4M (peak: 21.8M)
        CPU: 204ms
    CGroup: /system.slice/apache2.service
            └─731 /usr/sbin/apache2 -k start
              745 /usr/sbin/apache2 -k start
              746 /usr/sbin/apache2 -k start
              747 /usr/sbin/apache2 -k start
              748 /usr/sbin/apache2 -k start
              749 /usr/sbin/apache2 -k start
```

We are checking the status of apache “`sudo systemctl status apache2`”

3)

```
(kali@kali)-[~]
└─$ sudo ufw disable
```

We use “`sudo ufw disable`” to allow all traffic

4) Before Hardening:

```
(kali㉿kali)-[~]  
└─$ nmap 10.0.2.15  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-03-23 00:07 EDT  
Nmap scan report for 10.0.2.15  
Host is up (0.0000010s latency).  
Not shown: 998 closed tcp ports (reset)  
PORT      STATE SERVICE  
22/tcp    open  ssh  
80/tcp    open  http  
  
Nmap done: 1 IP address (1 host up) scanned in 0.28 seconds
```

5)After Hardening:

```
(kali㉿kali)-[~]  
└─$ nmap 10.0.2.15  
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-03-23 00:07 EDT  
Nmap scan report for 10.0.2.15  
Host is up (0.0000010s latency).  
Not shown: 998 closed tcp ports (reset)  
PORT      STATE SERVICE  
22/tcp    open  ssh  
80/tcp    open  http  
  
Nmap done: 1 IP address (1 host up) scanned in 0.28 seconds
```