Assignment - 3

of

Cyber Security Laboratory

(CSE612)

Bachelor of Technology (CSE)

By

Ramoliya Kaushal (22000409)

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Course In-charge: Prof. Ninad Bhavsar

NAVRACHANA UNIVERSITY

a UGC recognized University

Department of Computer Science and Engineering

School Engineering and Technology

Navrachana University, Vadodara

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Q1. Download Angry IP scanner in Windows 10/11.

Step-by-Step Instructions

Step 1: Open Your Web Browser

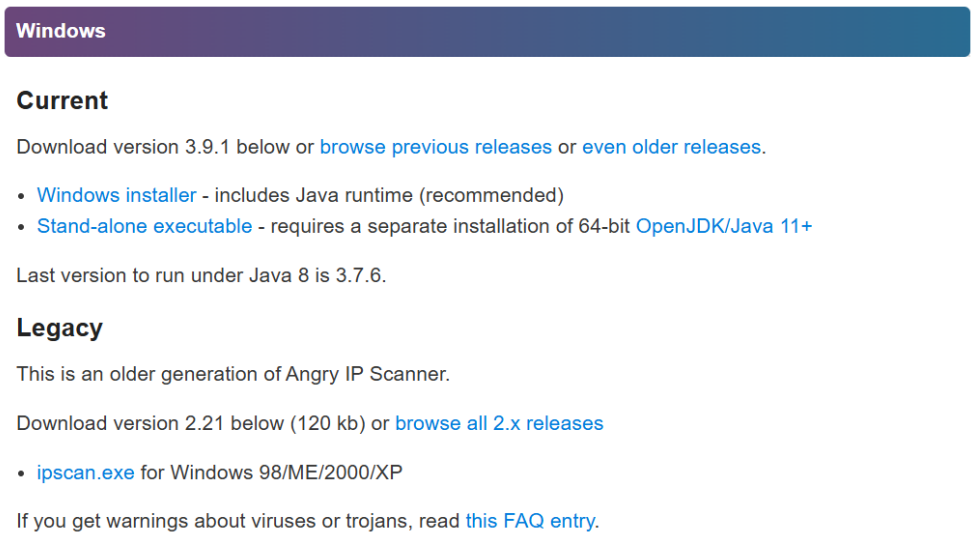
- Open Chrome, Edge, or any browser on your PC.

Step 2: Visit the Official Website

- Go to this official link: https://angryip.org/download/

Step 3: Choose the Windows Version

- On the download page, under the Windows section, click on: Installer (.exe) — recommended for normal users



Step 4: Download Starts

- Your browser will prompt to save the file.
- Click Save File or Keep, depending on your browser.

Step 5: Locate the Downloaded File

- Go to your Downloads folder.
- You should see a file like: ipscan-3.9.0-setup.exe

Step 6: Run the Installer

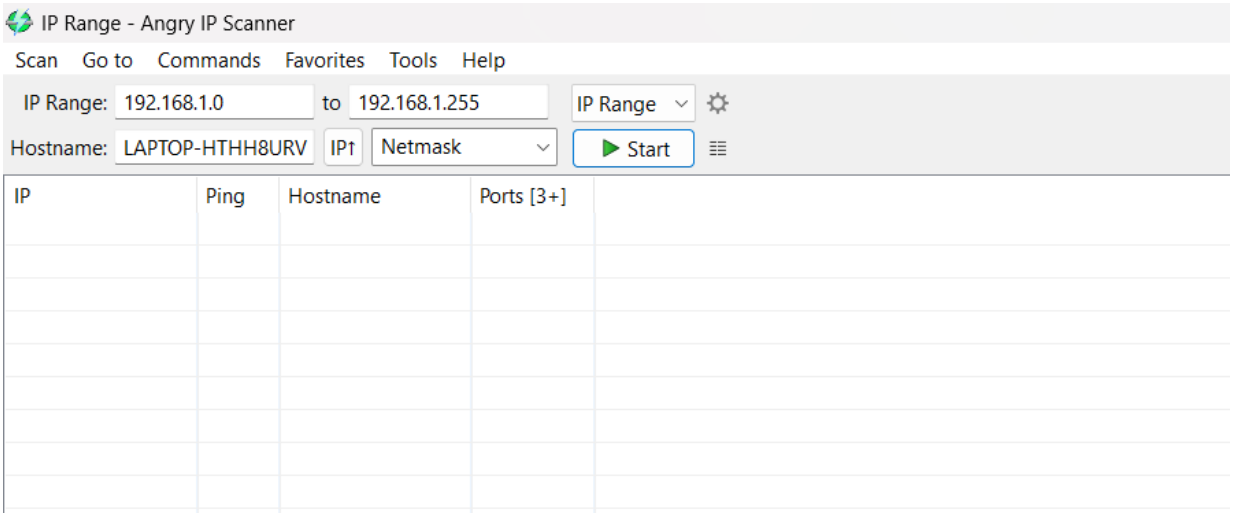
- Go to your Downloads folder.
- Double-click the downloaded file (ipscan-3.9.0-setup.exe).
- If prompted by User Account Control (UAC), click Yes.

Step 7: Install Angry IP Scanner

- The Angry IP Scanner setup wizard will open.
- Choose your language, then click OK.
- Click Next on the Welcome screen.
- Accept the License Agreement, then click Next.
- Choose the destination folder (or leave it as default), then click Next.
- Choose if you want to create a desktop shortcut.
- Click Install.
- Once installation is complete, click Finish.

Step 8: Launch Angry IP Scanner

- You can now launch it from:
    - Start Menu → Search "Angry IP Scanner"
    - Or double-click the desktop shortcut



Conclusion:

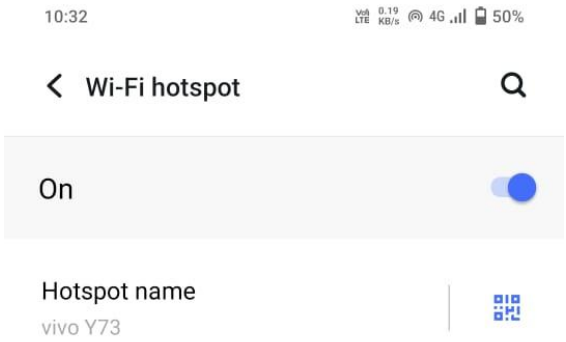
Angry IP Scanner was successfully downloaded from the official website. The correct installer for Windows 10/11 (64-bit) was selected. The setup file ipscan-3.9.0-setup.exe is now ready to be installed.

Q2. Start your Mobile Hotspot and connect your device in which Angry IP scanner is installed. Also connect a couple of devices /your friend's device with the same hot spot. Now start Angry IP scanner in Live host finding mode. Verify whether the devices discovered by Angry IP scanner tally with the actual devices connected to the hotspot. Use the IP address of the devices for the verification. You may tally this using ipconfig/all command on the respective devices and the IP addresses of the live hosts displayed by Angry IP scanner.

PART A: Setup Your Mobile Hotspot and Connect Devices

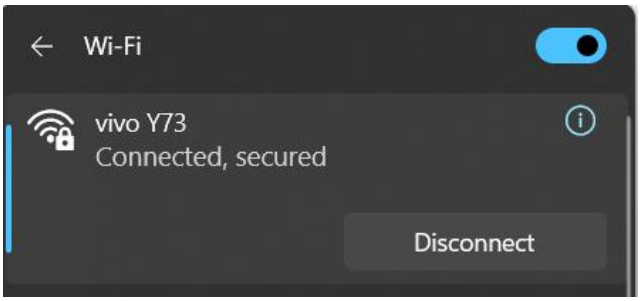
Step 1: Turn ON Mobile Hotspot on Your Phone

- Go to your phone's Settings → Network & Internet → Hotspot & tethering.
- Tap on Mobile Hotspot (or Wi-Fi Hotspot) and turn it ON.
- Note the Hotspot name (SSID) and password.



Step 2: Connect Your Laptop/PC (with Angry IP Scanner)

- On your laptop/PC, go to Wi-Fi settings.
- Connect to your mobile hotspot using the SSID and password.
- Once connected, verify internet access.



Step 3: Connect Other Devices (e.g., Your Friend's Phone or Laptop)

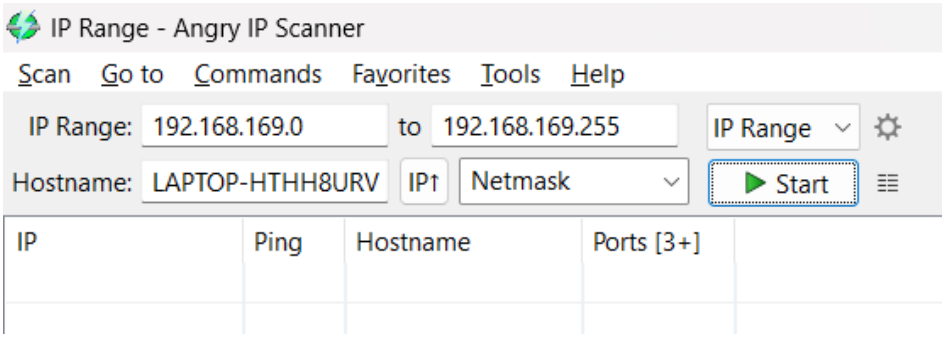
- On other devices (mobile or PC), connect to the same mobile hotspot.
- Make sure they are connected and active.

Now, all devices are on the same local network created by your mobile hotspot.

PART B: Find Live Hosts with Angry IP Scanner

Step 4: Open Angry IP Scanner

- On your main device (the one with Angry IP Scanner installed), open the app.

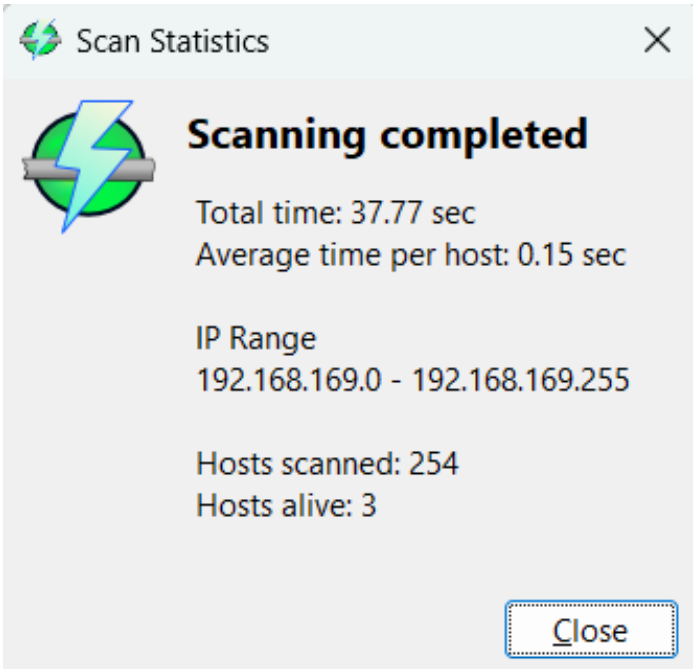


Step 5: Set the IP Range

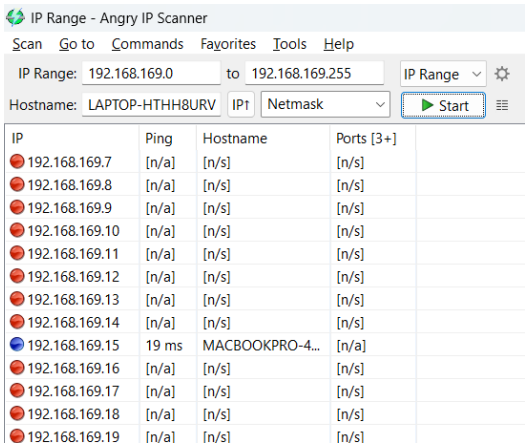
- In Angry IP Scanner, enter the IP range.
- If you don't know the range:
  - Open Command Prompt.
  - Type ipconfig and press Enter.
  - Look under Wireless LAN adapter Wi-Fi.

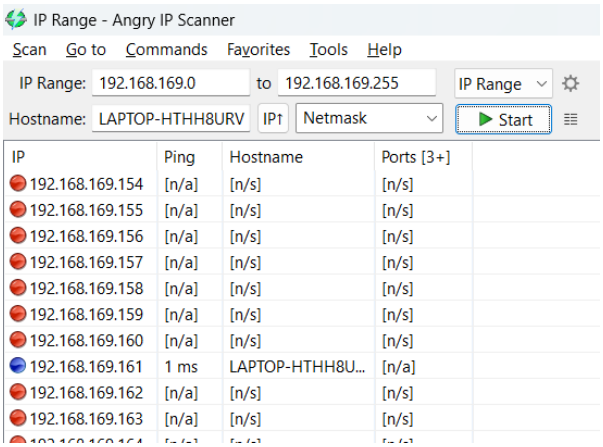
Step 6: Start the Scan

- Click the Start button in Angry IP Scanner.
- Wait for it to complete the scan.



- You will see a list of live IPs under the column "Ping" or "Hostname".
    - These are devices currently connected to the hotspot.





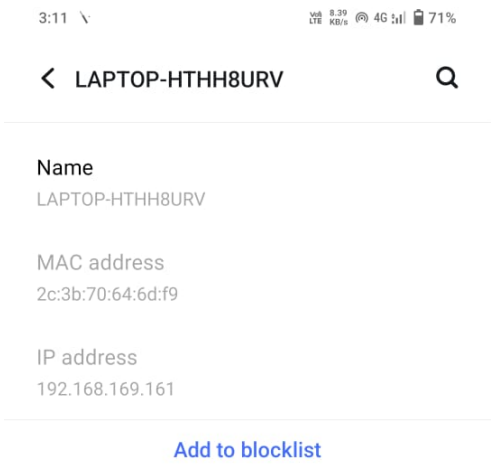
PART C: Verify Devices Using ipconfig /all or IP Settings

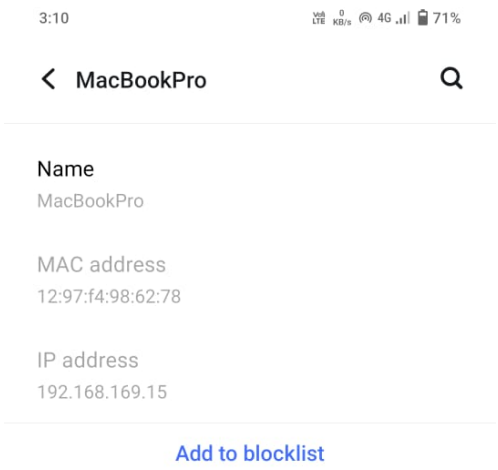
Step 7: Check IP on Each Device

Do this on every connected device to verify their IPs:

On Android Devices:

- Go to Settings → Wi-Fi.
- Tap on the connected hotspot.
- Look for IP address in the details (might be under Advanced Settings).





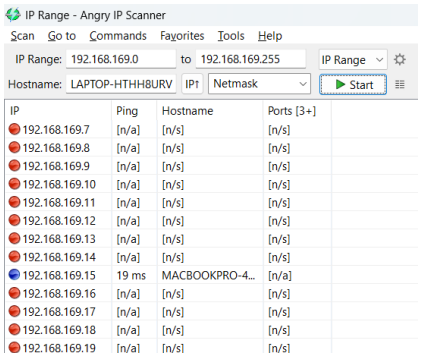
On Windows Laptops:

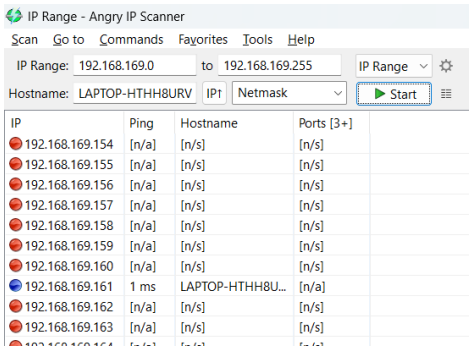
- Open Command Prompt.
- Type: ipconfig /all
- Look under Wireless LAN adapter Wi-Fi.
- Find the IPv4 Address.

```
IPv4 Address. . . . . . . . . . . : 192.168.169.161(Preferred)
```

Step 8: Match with Angry IP Scanner Output

- Compare the IP addresses found on each device with the live hosts shown in Angry IP Scanner.
- The IPs should match the devices you've connected.





Device Name	IP Shown in Device	IP in Angry IP Scanner
Your Laptop	192.168.169.161	192.168.169.161
Friend's Laptop	192.168.169.15	192.168.169.15

Conclusion

In this experiment, I created a mobile hotspot using my phone and connected both my personal PC and my friend's PC to it. After launching Angry IP Scanner on my PC, I scanned the IP address range associated with the hotspot network.

The scanner successfully detected both connected devices as live hosts. I verified the IP addresses of each device using the ipconfig /all command and device settings and they matched exactly with the IP addresses shown in Angry IP Scanner.

This confirms that Angry IP Scanner accurately detects all active devices connected to the same local network. It can be effectively used to monitor and identify live hosts within a specific IP range on a wireless hotspot.

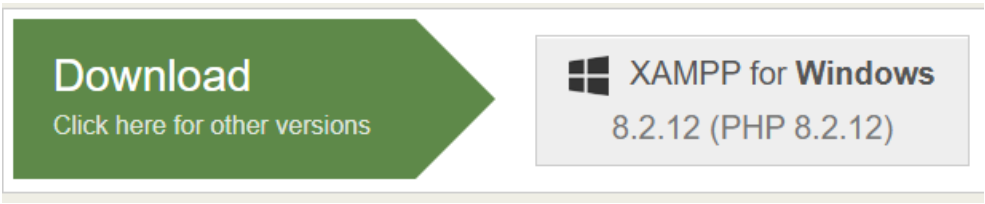
Q3. Install Apache Web Server in your device and in your friend's device, considering above scenario in 2. Start Apache Web Server in both the devices. Verify whether Angry IP scanner is able to detect the above Apache Web Services hosted on your device and your friend's device. Mention the IP address and port number on which these services were found to be hosted.

PART A: Install Apache Web Server on Both Devices

Apache is included in software bundles like XAMPP or WAMP. We'll use XAMPP as it's beginner-friendly and works on all versions of Windows.

Step 1: Download XAMPP (which includes Apache)

- Open a browser and go to: https://www.apachefriends.org/index.html
- Click Download for Windows.



Step 2: Install XAMPP

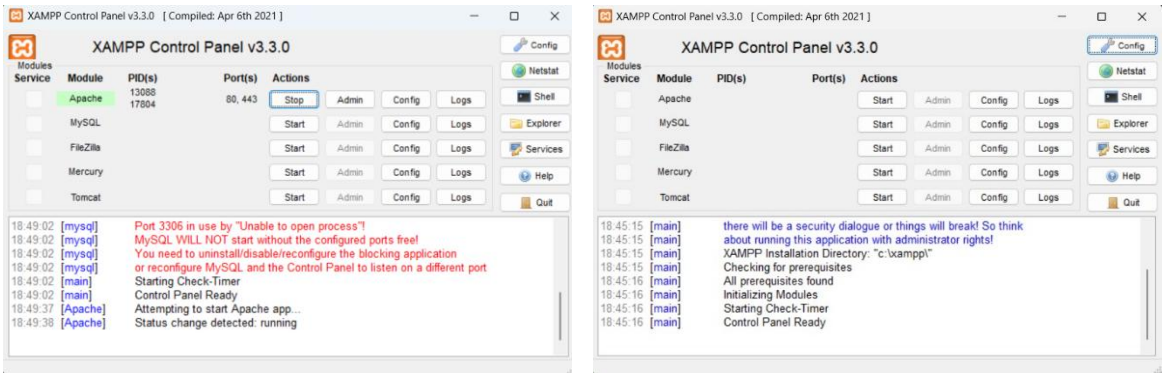
- Once the installer is downloaded, double-click it.
- If Windows prompts with a warning, click Yes.
- During setup:
  - Keep default options (Apache, MySQL, etc.).
  - Choose an installation path.
- Click Next and complete the installation.

Do this on both your device and your friend's device.

PART B: Start Apache Web Server

Step 3: Launch XAMPP Control Panel

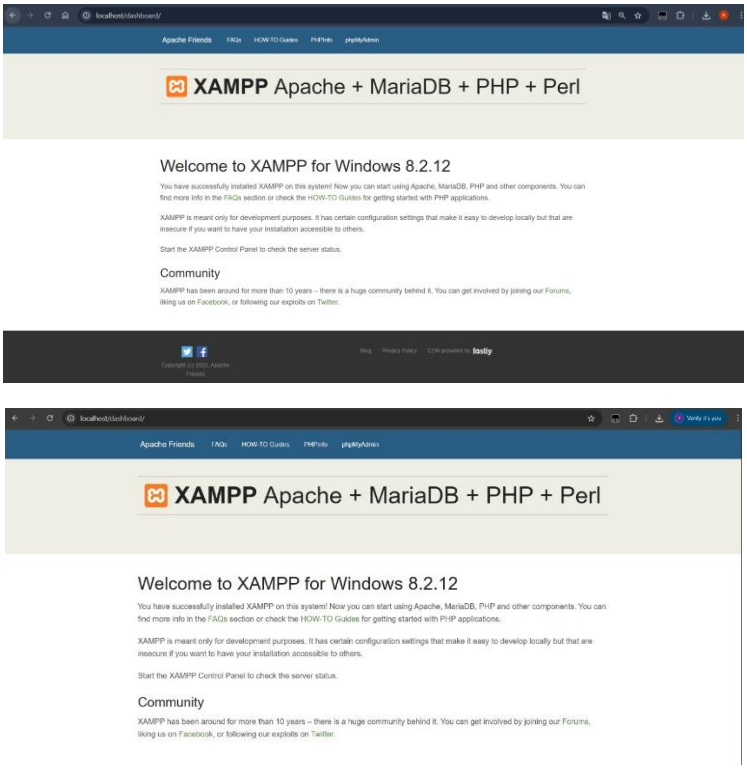
- After installation, open XAMPP Control Panel from Start Menu or Desktop.
- Click Start next to Apache.
- Apache should start running and turn green.



Do this on both devices.

Step 4: Check if Apache is Running Locally

- Open a browser and visit: http://localhost
- You should see the XAMPP Welcome Page or Apache test page.



This confirms Apache is running on Port 80 (default HTTP port).

PART C: Identify IP Addresses of Devices

Step 5: Get IP Addresses of Each Device

- Open Command Prompt on both PCs.
- Run: ipconfig
- Note the IPv4 Address under Wireless LAN adapter Wi-Fi.

```
C:\Users\kaush>ipconfig

Windows IP Configuration


Wireless LAN adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2401:4900:1c80:9fc8:c7d1:1ceb:d974:5b81
   Temporary IPv6 Address. . . . . . : 2401:4900:1c80:9fc8:ec3e:97b2:4c8b:6d4c
   Link-local IPv6 Address . . . . . : fe80::2054:ca96:64ec:3fd2%18
   IPv4 Address. . . . . . . . . . . : 192.168.1.12
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : fe80::1%18
                                       192.168.1.1

C:\Users\kaush>
```

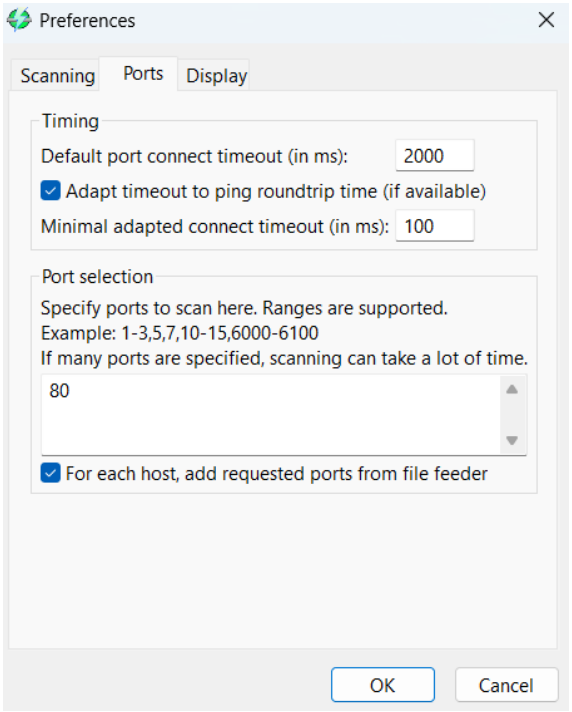
```
C:\Users\Vishal>ipconfig

Windows IP Configuration


Wireless LAN adapter Local Area Connection* 1:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2401:4900:1c80:9fc8:ba1b:61f1:4277:cc20
   Temporary IPv6 Address. . . . . . : 2401:4900:1c80:9fc8:c5fe:75f8:d8e3:57ca
   Link-local IPv6 Address . . . . . : fe80::ec8d:d237:30a4:3ee3%17
   IPv4 Address. . . . . . . . . . . : 192.168.1.11
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : fe80::1%17
                                       192.168.1.1

Ethernet adapter Ethernet:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . : E3-WDS13.COM

C:\Users\Vishal>
```

Device	IPv4 Address
Your PC	192.168.1.12
Friend's PC	192.168.1.11

PART D: Scan Apache Servers Using Angry IP Scanner

Step 6: Configure Angry IP Scanner

- Open Angry IP Scanner on your PC.
- Set the IP range as: 192.168.43.1 to 192.168.43.254
- Go to Tools > Preferences > Ports and add Port 80 (HTTP).
- Click OK to save settings.



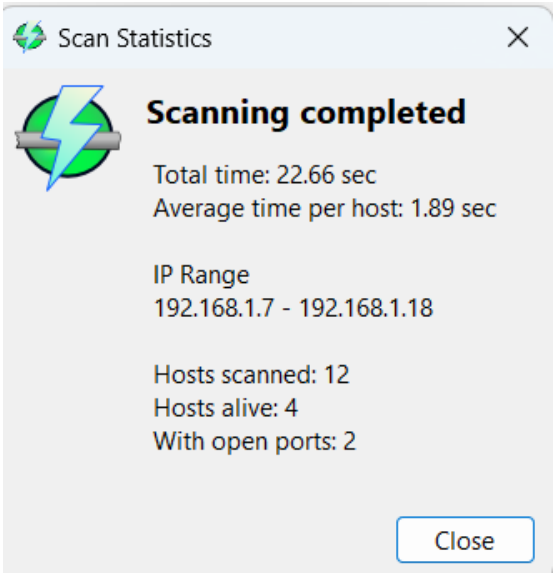
Step 7: Run the Scan

- Click Start in Angry IP Scanner.
- Wait for it to finish scanning.

Step 8: Check for Apache Services

- In the results, look for the IPs of your and your friend's PC.
- You will see Port 80 marked as open for those IPs.

192.168.1.10	985 ...	[n/a]	[n/a]
192.168.1.11	1 ms	LAPTOP-2VDL16...	80
192.168.1.12	954 ...	LAPTOP-HTHH8U...	80
192.168.1.13	[n/a]	[n/s]	[n/s]
192.168.1.14	1825	[n/a]	[n/a]



PART E: Record and Report Findings

Step 9: Document the Output

Device	IP Address	Apache Port	Status
Your PC	192.168.1.12	80	Detected
Friend's PC	192.168.1.11	80	Detected

Apache web services were successfully detected on both devices using Angry IP Scanner by identifying the open port 80.

Conclusion:

Both my PC and my friend's PC were connected to the same mobile hotspot network. Apache Web Server was installed and started on both devices using XAMPP. Angry IP Scanner was then used to scan the network for live hosts and open ports.

The scan correctly identified both IP addresses and showed that Port 80 was open, indicating that the Apache Web Server was running. This confirms that Angry IP Scanner can successfully detect web services like Apache hosted within a local network.