Output to scan the virtual machine using Nmap

Step 1: Download VirtualBox

1. Go to the official VirtualBox website: https://www.virtualbox.org/

2. Click on the "Downloads" link in the top navigation menu.

Step 2: Choose the Correct Package

1. Select the appropriate package for Windows.

Step 3: Install VirtualBox

1. Download the installer for Windows and double-click on the downloaded file to start the installation.

2. Follow the on-screen instructions and accept the license agreement.

3. Choose the components you want to install and the installation path.

4. Complete the installation process.

Step 4: Post-installation Configuration

1. After installation, add your user account to the "VirtualBox Users" group to grant permissions to manage VMs.

- Right-click on This PC and select Manage.

- Go to Local Users and Groups > Groups.

- Double-click on VirtualBox Users, click Add, and include your user account.

Step 5: Launch VirtualBox

1. Launch VirtualBox from the Start menu.

Installing Ubuntu 22.04 in VirtualBox

1. Download the Ubuntu 22.04 image from https://www.osboxes.org/.

2. Create a new VM in VirtualBox and configure it with the downloaded image.

3. Follow the on-screen instructions to install Ubuntu.

Installing Nginx in Ubuntu

1. Open the terminal in Ubuntu (Ctrl + Alt + T).

2. Update the package list:

sudo apt update

3. Install Nginx:

sudo apt install nginx

4. Start Nginx:

sudo systemctl start nginx

5. Enable Nginx to start on boot:

sudo systemctl enable nginx

6. Verify the installation by accessing http://localhost in your web browser.

Scanning the VM with Nmap

1. Find the VM's IP address using the command:

sudo apt install net-tools

Once installation is completed, run command:

ifconfig

2. On the host machine, use Nmap to scan the VM:

nmap <VM-IP-address>

3. Observe the open ports in the scan results.

