Assignment 2

Hacker lab setup

We are going to setup hacker lab so you need one attacker machine like linux and 1 victim machine .

Know we are going to download linux and metasploitable 2.

NOTE :- its very important to record video and write a report in pdf .

1 Vmware (how to install linux)

1. **Download VMware Workstation Player**: If you haven't already, download and install VMware Workstation Player from the VMware website. It's available for both Windows and Linux.
2. **Download Linux ISO**: Choose the Linux distribution you want to install. Popular choices include Ubuntu, Fedora, CentOS, and Debian. Download the ISO image file from their respective websites.
3. **Open VMware Workstation Player**: Launch VMware Workstation Player on your computer.
4. **Create a New Virtual Machine**:
    - Click on "File" -> "New Virtual Machine" or use the "Create a New Virtual Machine" option on the main screen.
    - Select "Typical" for the configuration type.
5. **Select Installer Disk Image (ISO)**:
    - Choose "Installer disc image file (iso)" and click "Browse" to navigate to the Linux ISO file you downloaded.
    - Select the Linux ISO file and click "Next."
6. **Choose Linux Operating System**:
    - VMware Player will automatically detect the operating system. If not, select the Linux version and version number that matches the distribution you downloaded. For example, if you downloaded Ubuntu 20.04, choose "Linux" and "Ubuntu" as the version.
    - Click "Next."
7. **Name Your Virtual Machine**:
    - Enter a name for your virtual machine. This can be anything you want.
    - Choose a location to store the virtual machine files.
    - Click "Next."
8. **Specify Disk Capacity**:
    - Choose the disk size for your virtual machine. The default size should be sufficient for most purposes, but you can increase it if you need more space.
    - Select "Store virtual disk as a single file" for simplicity.
    - Click "Next."
9. **Customize Hardware (Optional)**:

- You can customize hardware settings like RAM, CPU cores, network adapters, etc., according to your requirements.
- Once you've made your adjustments, click "Finish."

10. **Install Linux**:
    - Your new virtual machine will appear in the VMware Workstation Player window. Click on it and then click "Play virtual machine" to start it.
    - The virtual machine will boot from the Linux ISO you provided.
    - Follow the on-screen instructions to install Linux, which will vary depending on the distribution you chose. Generally, you'll need to select language, timezone, keyboard layout, disk partitioning, and create a user account.
    - Once the installation is complete, the virtual machine will restart.

That's it! You've successfully installed Linux in VMware. You can now use it just like a physical machine, but within your VMware virtualization environment.

2 – Virtualbox (how to install linux)

Step 1: Download VirtualBox

Go to the VirtualBox website and download the version of VirtualBox appropriate for your operating system. Follow the installation instructions provided for your platform.

Step 2: Download a Linux Distribution

Choose a Linux distribution that you want to install. Popular choices include Ubuntu, Fedora, Debian, and CentOS. Download the ISO image of the distribution from their respective websites.

Step 3: Create a New Virtual Machine

1. Open VirtualBox.
2. Click on the "New" button in the toolbar.
3. Enter a name for your virtual machine, select the type as "Linux," and choose the version that matches your Linux distribution (e.g., Ubuntu 64-bit).
4. Allocate the amount of RAM you want to assign to the virtual machine. It's recommended to allocate at least 1-2 GB, depending on your system's resources.
5. Create a virtual hard disk. Choose the default options unless you have specific requirements.

Step 4: Configure Virtual Machine Settings

1. Select the virtual machine you just created and click on "Settings."
2. Under the "System" tab, make sure the boot order includes "Optical" before "Hard Disk."
3. Under the "Storage" tab, click on the empty disk next to "Controller: IDE" or "Controller: SATA," then click the disk icon and choose "Choose a disk file." Browse to the Linux ISO you downloaded earlier.
4. Optionally, you can adjust other settings like network adapters, display, etc., according to your needs.

Step 5: Install Linux

1. Start the virtual machine by selecting it from the VirtualBox manager and clicking on the "Start" button.
2. The virtual machine will boot from the Linux ISO you attached. Follow the installation prompts provided by the Linux distribution's installer.
3. When prompted, select the option to install Linux, and follow the on-screen instructions to complete the installation process.
4. After installation, the virtual machine will likely prompt you to restart. Go ahead and restart it.
5. After rebooting, you should be greeted with your Linux distribution's login screen.

3 – metasploitable 2 (how to install)

As of my last update, Metasploitable 2 is a deliberately vulnerable virtual machine designed for practicing penetration testing and learning about security vulnerabilities. Here's a general guide on how to set it up in VMware:

1. **Download Metasploitable 2**: You can find the Metasploitable 2 VM on various sources online. It's important to download it from a trusted source. The file will typically be in OVA format, compatible with VMware.
2. **Install VMware**: If you haven't already, download and install VMware Workstation Player or VMware Workstation Pro. Both are suitable for running virtual machines on your system.
3. **Import Metasploitable 2 into VMware**:
    - Open VMware.
    - Go to "File" > "Open" or "Import".

- Browse to the location where you downloaded the Metasploitable 2 OVA file.
- Select the file and follow the prompts to import it.

4. **Configure Virtual Machine Settings**:
   - Once imported, select the Metasploitable 2 virtual machine from the library.
   - Check its settings, such as RAM allocation, CPU cores, network adapter settings, etc. You can adjust these based on your system resources and requirements.
5. **Network Configuration**:
   - Metasploitable 2 has intentionally vulnerable services running on it, so it's important to isolate it from your main network.
   - Configure the network adapter of the Metasploitable 2 VM to use a "Host-only" or "NAT" network in VMware settings. This prevents it from being directly accessible from the internet or your main network.
6. **Start the Virtual Machine**:
   - Once configured, start the Metasploitable 2 VM from VMware.
7. **Accessing Metasploitable 2**:
   - After booting up, the VM will show you an IP address. Note down this IP address as you'll need it to connect to the Metasploitable 2 instance.
   - You can then use various penetration testing tools and techniques to exploit the vulnerabilities present on the Metasploitable 2 system.
8. **Security Precautions**:
   - Since Metasploitable 2 is intentionally vulnerable, ensure that you use it responsibly and only in a controlled environment.
   - Never expose Metasploitable 2 to an untrusted network or the internet without proper precautions.

Always keep in mind the ethical considerations of using vulnerable systems like Metasploitable for educational purposes only. Make sure you're not violating any laws or terms of service while using it.

4 – Virtualbox (how to install metasploitable in)

1. **Download Metasploitable 2**: Visit the following link to download the Metasploitable 2 VM: Metasploitable 2 Download
2. **Install VirtualBox**: If you haven't already, download and install VirtualBox from the official website: VirtualBox Downloads
3. **Import Metasploitable 2 into VirtualBox**:
   - Launch VirtualBox.

- Go to "File" > "Import Appliance".
- Browse and select the downloaded Metasploitable 2 VM file.
- Click "Next" and then "Import".

4. **Configure Metasploitable 2 VM**:
   - Once imported, select the newly imported VM in VirtualBox.
   - Click on "Settings".
   - Adjust settings if necessary, such as RAM and CPU allocation. Metasploitable 2 doesn't require high specifications, but you may adjust based on your system resources.
   - Ensure the network settings are as per your requirement. Typically, you would want it to be on NAT or Bridged network mode for internet access.
   - Click "OK" to save the settings.
5. **Start Metasploitable 2 VM**:
   - Select the Metasploitable 2 VM from the VirtualBox main window.
   - Click on the "Start" button.
6. **Explore and Use Metasploitable 2**:
   - Once the VM boots up, you'll see instructions for accessing it.
   - Follow the instructions to log in and start using Metasploitable 2.
   - Metasploitable 2 is intentionally vulnerable, so be cautious while using it and avoid exposing it to the internet without proper precautions.
7. **Update and Secure**:
   - After you have it running, ensure that you don't connect it to any network where it could be accessed by unauthorized individuals.
   - Metasploitable 2 is intentionally insecure and should only be used in controlled environments for testing and learning purposes.
   - If there are any available updates or patches for the VM, make sure to apply them to minimize security risks.

That's it! You should now have Metasploitable 2 running in VirtualBox on your system. Remember to use it responsibly and ethically for educational and testing purposes only.

: CONGRATULATIONS YOU HAVE SETUP A HACKER LAB :