Setting up Kali Linux on a Virtual Machine (VM)

Part 1: Setting Up Kali Linux on a Virtual Machine

Step 1: Download Virtualization Software

First, you need a virtualization platform. VMware Workstation Player and VirtualBox are two popular options that are compatible with Kali Linux. Both have free versions available for personal use.

- VMware Workstation Player : {Download}
- VirtualBox: {Download}

Download and install the one that suits your preferences and system requirements.

Step 2: Download Kali Linux ISO

Next, download the Kali Linux ISO file from the official Kali Linux website.

- Go to https://www.kali.org/get-kali/ and choose the version that matches your virtualization platform. For most users, the 64-bit version is appropriate.

Step 3: Create a New Virtual Machine

Launch your virtualization software and create a new virtual machine.

- **For VirtualBox**:

1. Click "New" and set the name as "Kali Linux".
2. Choose "Linux" as the type and "Debian (64-bit)" as the version.
3. Allocate memory (RAM) to the VM; 2048 MB (2 GB) is a good starting point.
4. Create a virtual hard disk. The default size of 20 GB should be sufficient, but feel free to increase it based on your needs.

5. Before starting the VM, go to Settings -> Storage, click on the empty optical drive, and choose the Kali Linux ISO you downloaded.

- **For VMware Workstation Player**:

1. Choose "Create a New Virtual Machine".
2. Select the option to install the OS later.
3. Choose Linux and Debian 10.x 64-bit as the version.
4. Name the VM "Kali Linux" and specify the location for the VM files.
5. Specify disk capacity (20 GB or more) and select "Store virtual disk as a single file".
6. Before you finish, customize the VM's hardware to load the Kali Linux ISO through the CD/DVD option in the hardware settings.

Step 4: Install Kali Linux

- Start the VM and follow the Kali Linux installation process. The installer is quite straightforward. You can choose the graphical install option for ease of use.
- Complete the installation process by following the on-screen instructions. You'll need to set the root password, create a user, partition the disk (if necessary), and select software to install. For most users, the default selections are adequate.

Step 5: Finalize Installation

- Once the installation is complete, restart the VM. You might need to remove the ISO from the virtual CD/DVD drive to prevent the installation from starting over.
- Update your system using the terminal commands `sudo apt update` and `sudo apt upgrade`.