How to Install Kali Linux on VirtualBox

Introduction

Kali Linux is a Delian-based Linux distribution featuring over six hundred preinstalled penetration testing programs. Installing Kali as a virtual machine on a type 2 hypervisor such as VirtualBox provides the isolation and rollback capabilities necessary for advanced security testing.

This step-by-step tutorial shows you how to install Kali Linux on VirtualBox.

Prerequisites

VirtualBox installed (this tutorial uses VirtualBox 7).

2 GB of RAM or more available for VM creation.

25 GB of free disk space.

Preparing to Install Kali Linux on VirtualBox

To create and prepare a virtual machine for Kali Linux, you must load an ISO file and configure virtual hardware, such as memory, CPU cores, and hard disks. Follow the steps below to complete these actions.

<u>Step</u> 1: Download Kali Linux ISO Image

Kali Linux offers ISO images for 32-bit, 64-bit, and ARM64 architectures. To download an ISO file:

1. Visit the installer section of the Kali Linux official website.

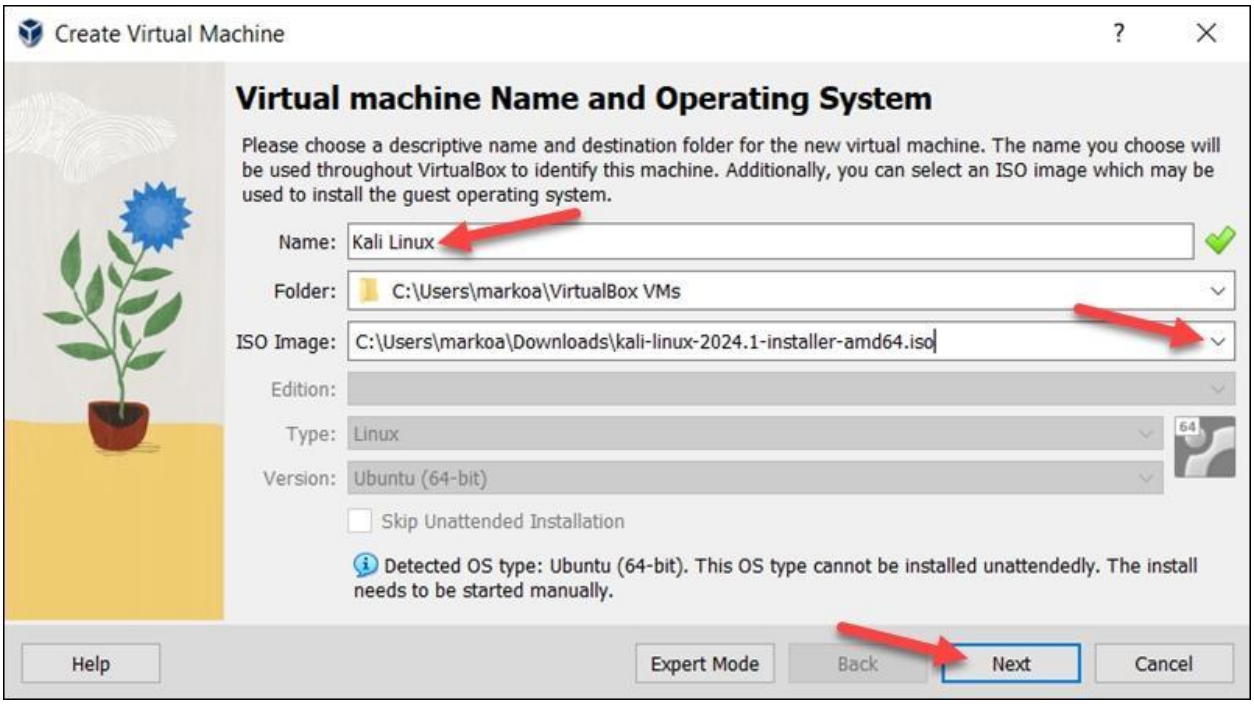
2. Select the system architecture of the host OS and download the ISO file by clicking the button in the bottom-left corner of the installer card.

Step 2: Create Kali Linux VirtualBox Instance

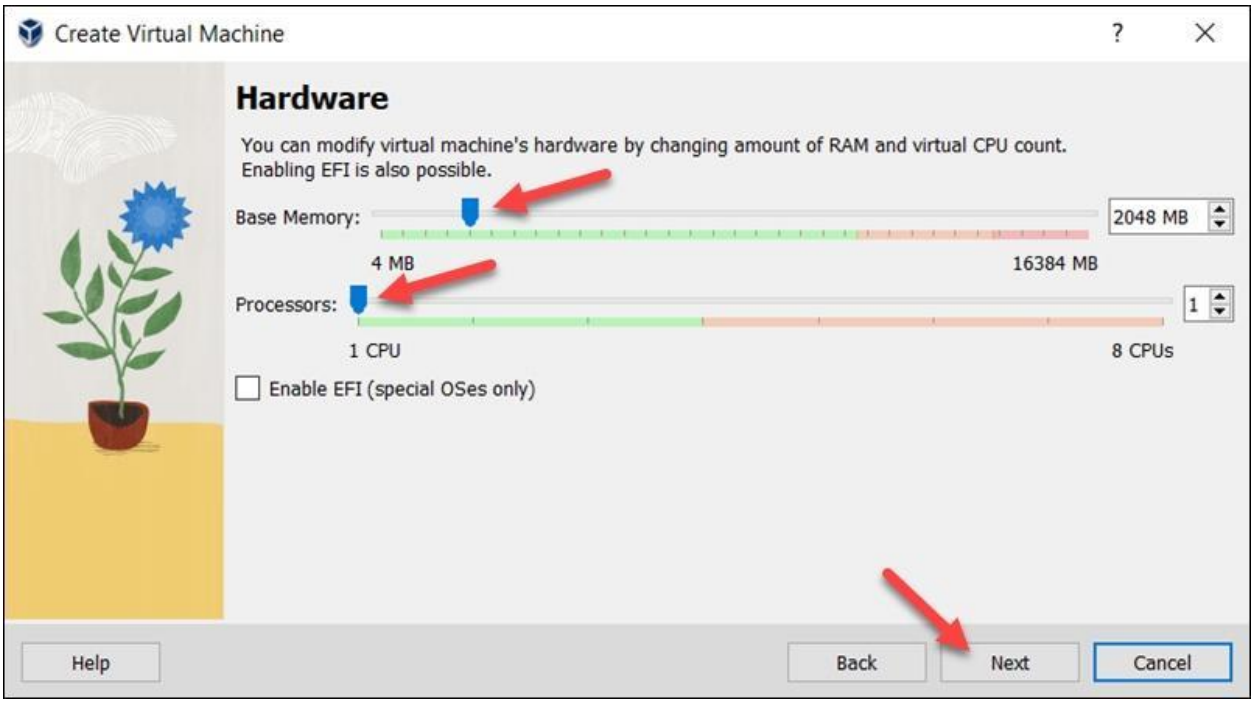
Create a new virtual machine and configure it to run Kali Linux. Proceed with the steps below to correctly set up a Kali Linux VM in VirtualBox:

1. Launch **VirtualBox Manager** and click the **New icon**.

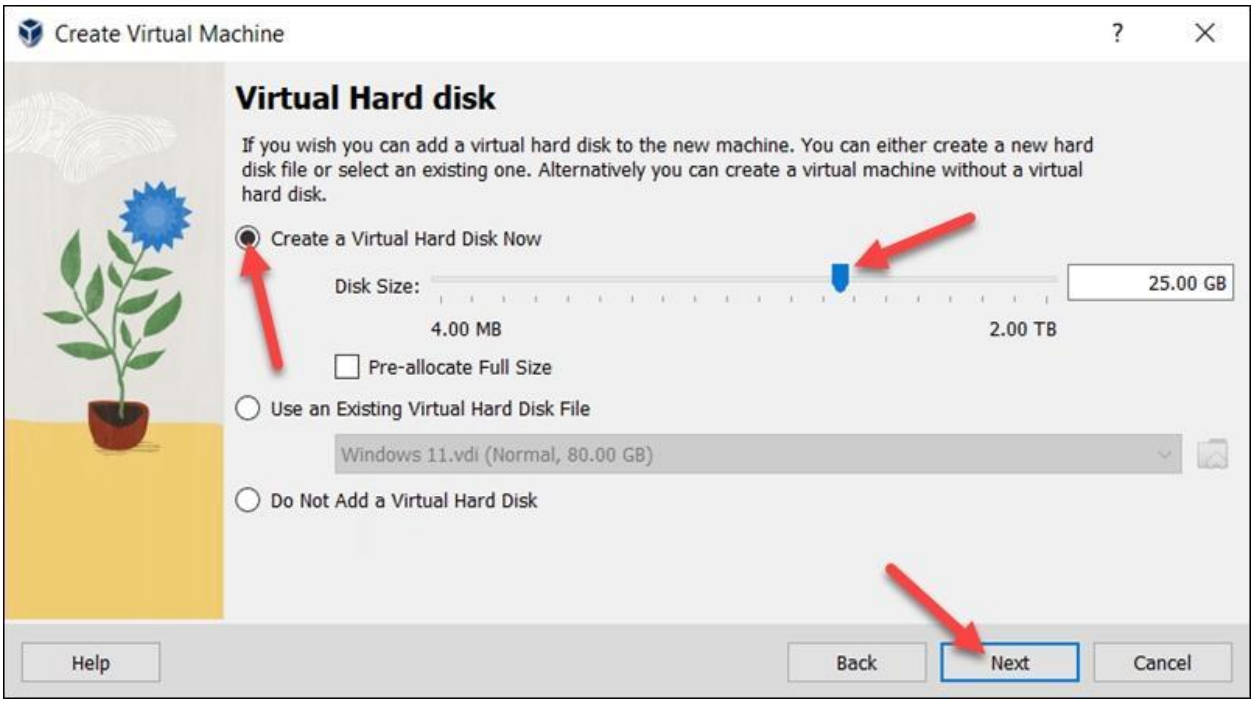
2. Specify a name for the VM and provide the path to the ISO image. Select **Next**.



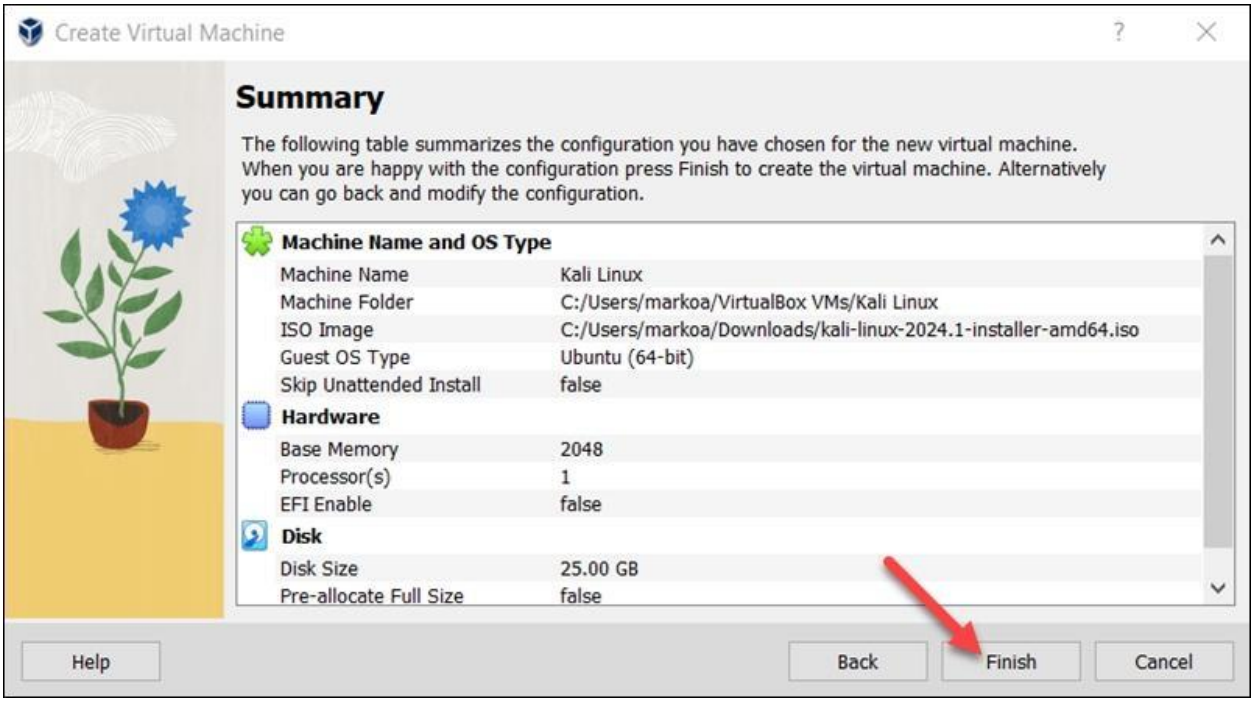
3. Select the amount of memory and the number of **virtual CPUs** to allocate to the VM. The minimum recommended values for Kali Linux are 2 **GB of RAM** and 1 **CPU**. Select Next when you finish setting up the VM hardware.



4. Create a virtual hard disk for the new VM. The recommended hard disk size is at least 25 **GB**. Alternatively, you can use an existing virtual hard disk file or decide not to add one. Click **Next** to proceed to the next step.



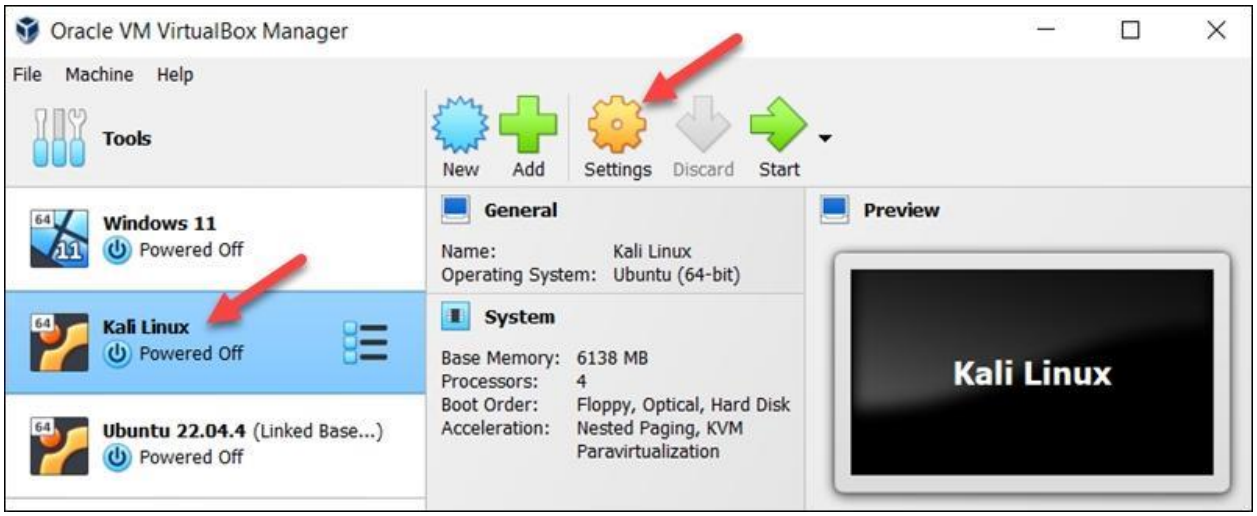
5. Review the new VM setup on the Summary page. Select Finish to create the virtual machine.



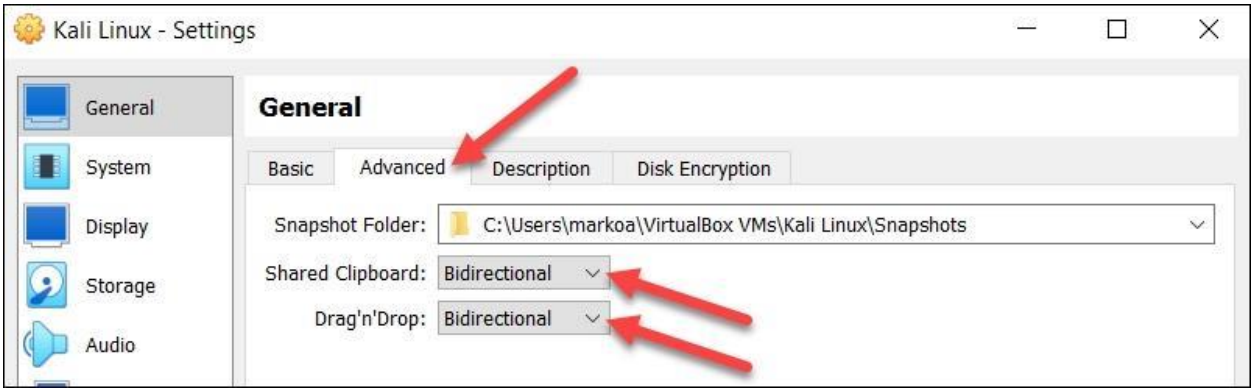
The VM appears on the list in VirtualBox Manager.

Step 3: **Configure Virtual Machine Settings and Start VM**
Before starting the VM and beginning the installation process, follow the steps below to perform additional adjustments on the VM:

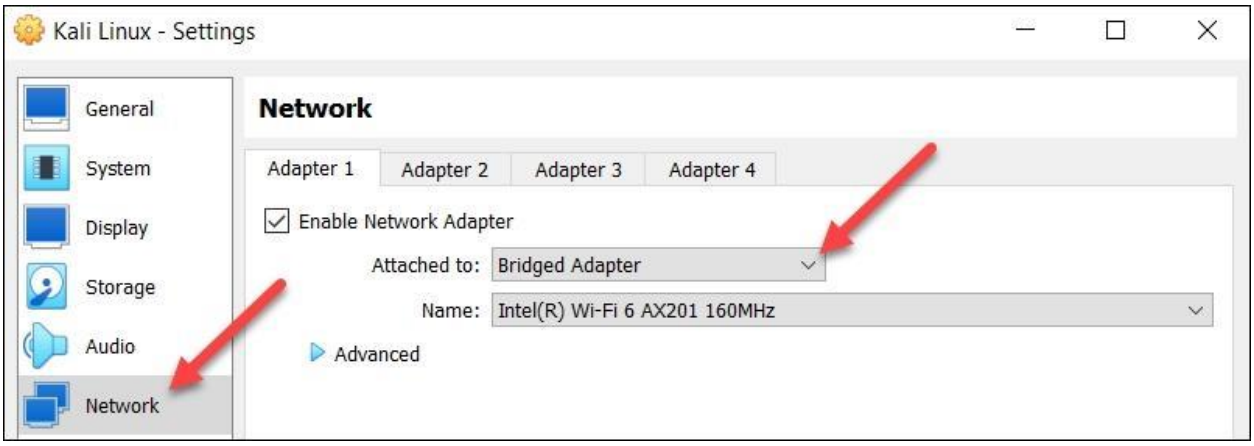
1. Select the Kali Linux VM and click the **Settings icon**.



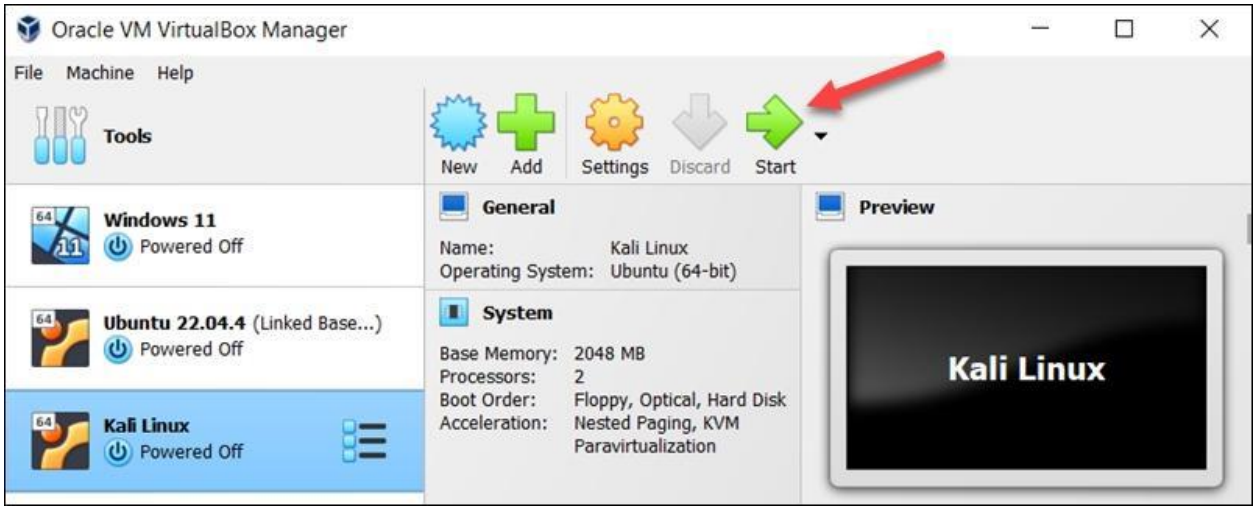
2. Select the **Advanced** tab in the **General** section and change the **Shared Clipboard** and **Drag'n'Drop** settings to **Bidirectional**. This feature allows the host and the guest machine to exchange files.



3. Select **Network** from the menu on the left side. Change the **Attached** to field to **Bridged Adapter**. Select **OK** at the bottom of the window to return to the main window.



4. Click **Start** to begin installing Kali Linux.



How to Install Kali Linux on VirtualBox

Kali Linux uses the Debian installer to set up the operating system. The sections below provide a detailed walkthrough of the installer and offer advice on configuring Kali Linux.

Step 1: **Perform Initial Configuration**

When the new VM is started, the Kali Linux installer menu appears. Start the installation procedure by following the steps below:

1. Select the **Graphical install** option.

2. Choose the system's default language, which will also be used during installation.

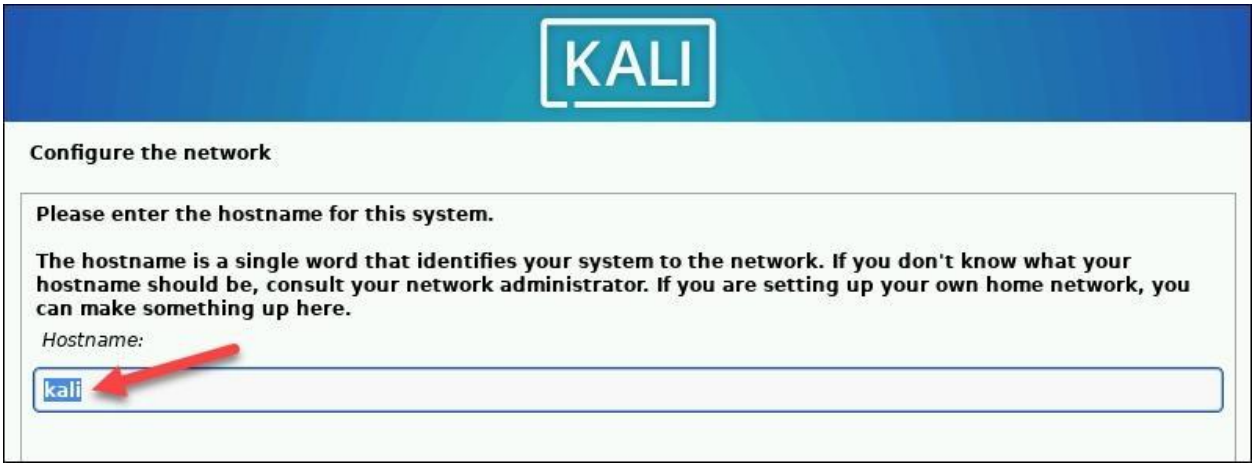
3. Find and select your country from the list, or choose other.

4. Decide which keyboard mapping to use.

Step 2: **Configure Host**, **User**, **and Time Zone**

The following installer steps set up the hostname and domain of the system and configure the user:

1. In the **Configure the network** section, enter a **system hostname**.



2. Type a **domain name** that the OS will use to identify the VM within a network. Specifying a **domain** name is not necessary if the VM is not part of an extensive local network.

3. Create a **user account** by providing the user's full name and username.

4. Create a **strong password** for the user account.

5. Select the correct time zone from the available options.

Step 3: **Create Hard Disk Partitions**

Proceed with the following steps to create a bootable partition on the virtual hard disk:

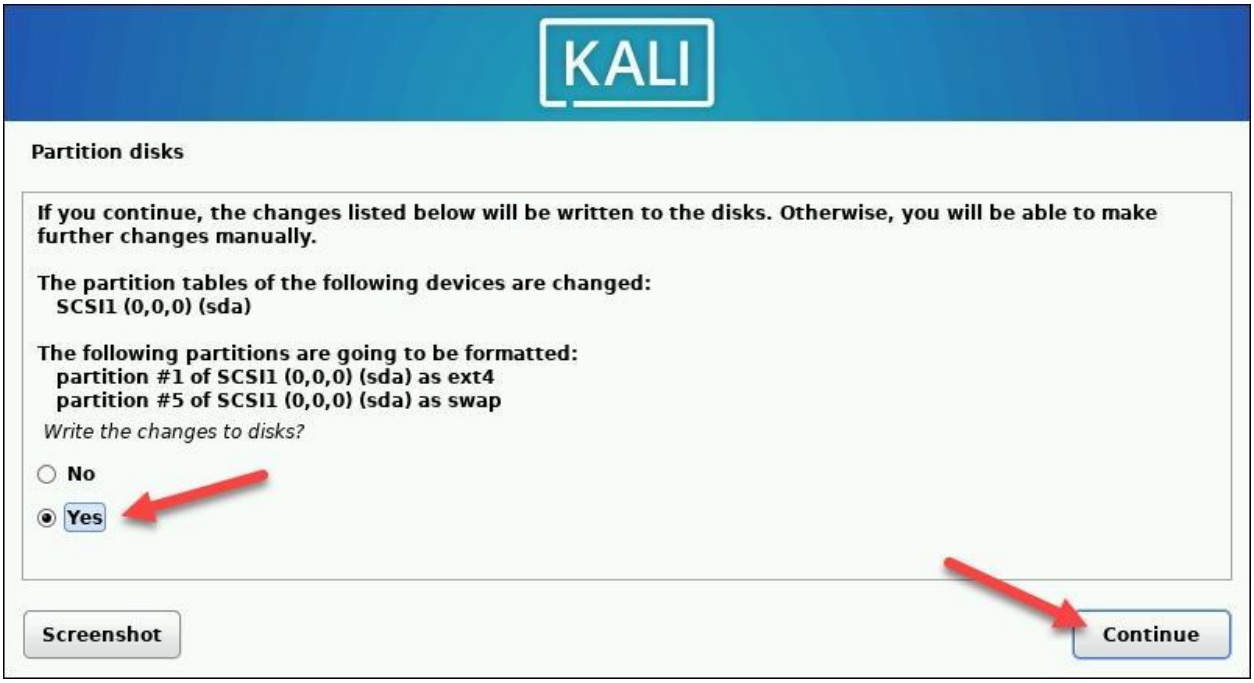
1. Select how to partition the hard disk. The default option is **Guided** – use entire disk.

2. Select the disk you want to use for partitioning. The only available option is the disk created during the VM creation.

3. Select the **partitioning scheme**. The default option is **All files in one partition**.

4. The wizard provides an overview of the configured partitions. Ensure that the **Finish partitioning and write changes to disk** option is selected.

5. Confirm the choice by selecting Yes on the next screen.

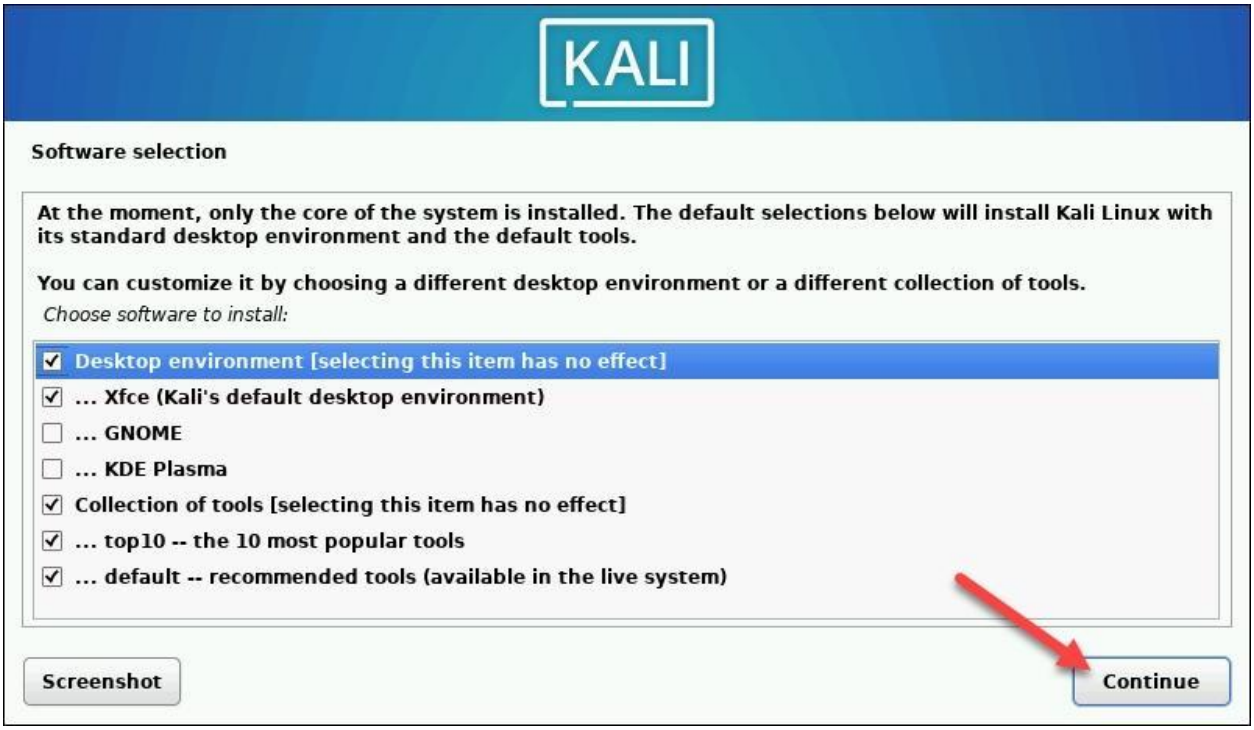


The wizard starts installing Kali.

Step 4: **Customize Kali Linux Installation**

After installing the system's core, Kali enables users to customize the OS further. Choose the components to install by executing the following steps:

1. Select the desktop environment and the tools you want, or click **Continue** to proceed with the default options.

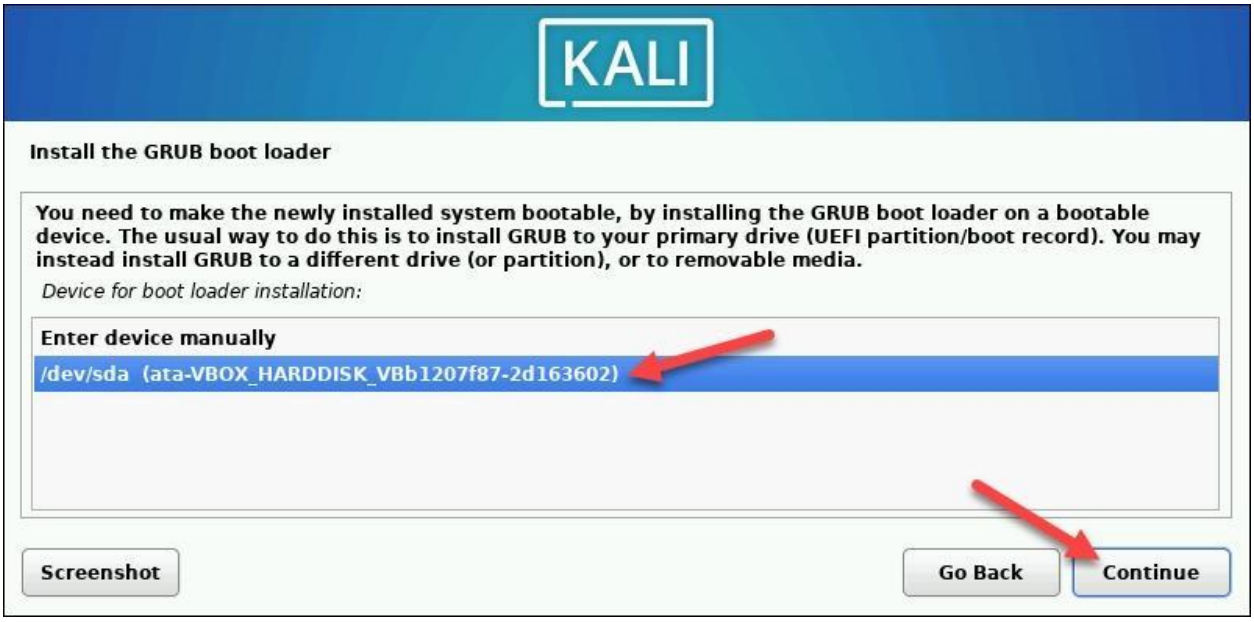


2. Select whether you want to use a network mirror.

3. If you use an **HTTP proxy**, enter the necessary information. Otherwise, leave the field blank.

4. Install **the GRUB bootloader** on the hard disk. Select **Yes** and **Continue**.

5. Select a bootloader device to ensure the newly installed system is bootable.

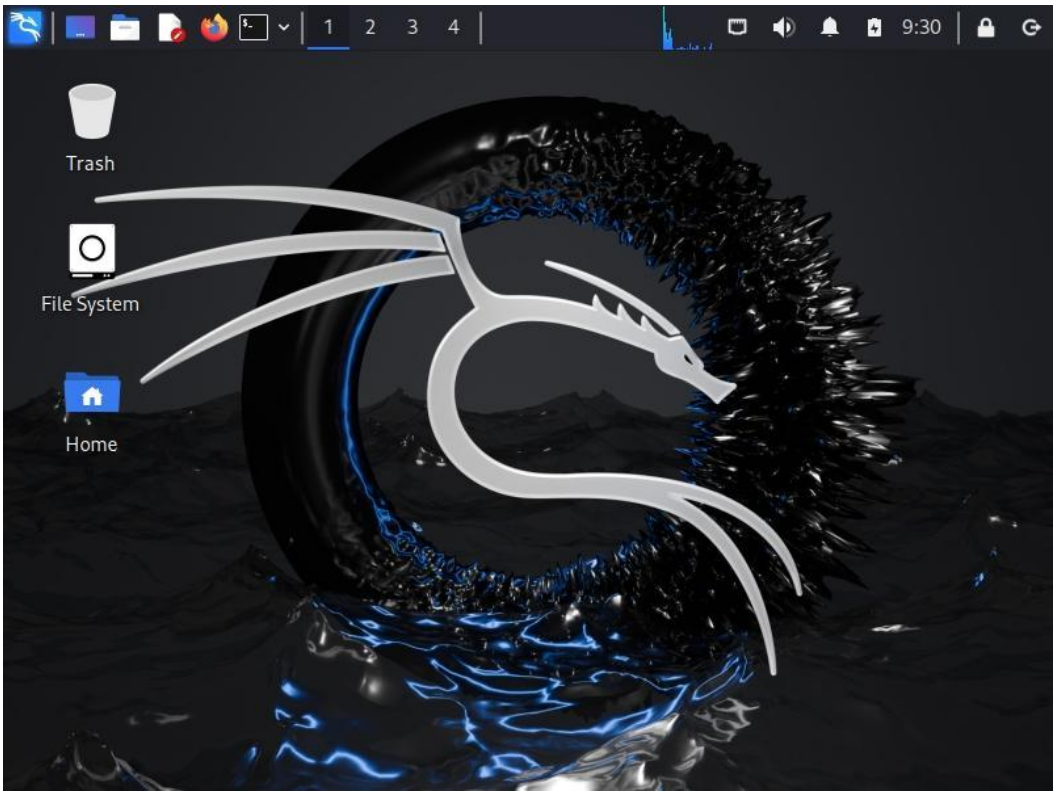


When Kali finishes installing, the Installation is complete message appears.

6. Click **Continue** to reboot your VM. After rebooting, the Kali login screen appears.

7. Enter the username and password created in the previous steps.

The Kali Linux desktop appears on the screen.


1 2 3 4
9:30
Trash
File System
Home