Installing Kali Linux on Oracle VirtualBox: Step-by-Step Guide

Why install Kali Linux on Oracle VirtualBox?

Installing Kali Linux on VirtualBox is a great choice for anyone learning a penetration testing and cybersecurity as it provides a safe, isolated environment for using a variety of tools without damaging your host system. You can take snapshots to revert changes, test configurations, and run it alongside your main operating system without going through the complexity of dual-booting or dedicated hardware. Oracle VirtualBox also offers networking modes, such as NAT, bridged, host-only, and internal, making use of them to create realistic and stable lab environments. This guide walks you step-by-step through downloading and setting up Kali Linux within VirtualBox.

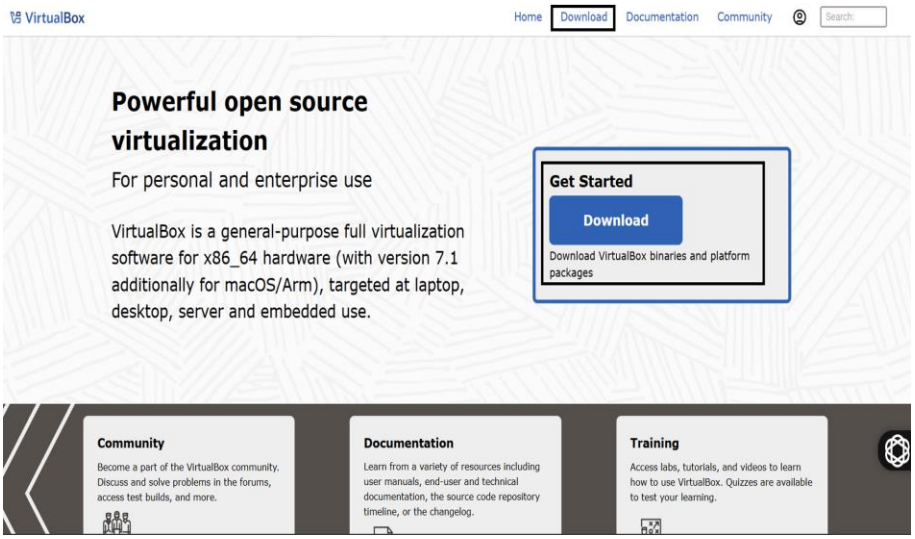
Prerequisites

- A desktop computer or laptop
- At least 8 GB RAM
- 50-100 GB free disk space
- Oracle VM VirtualBox + Extension Pack
- Kali Linux ISO image from the official site (https://www.kali.org/get-kali/)

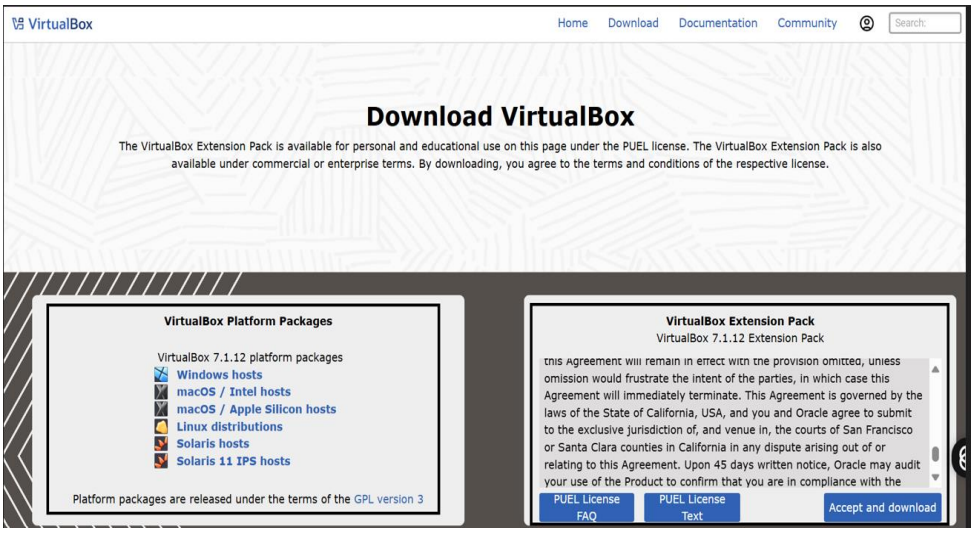
Step-by-step Guide

Step 1: Go to https://www.virtualbox.org/

1. Click **Download**

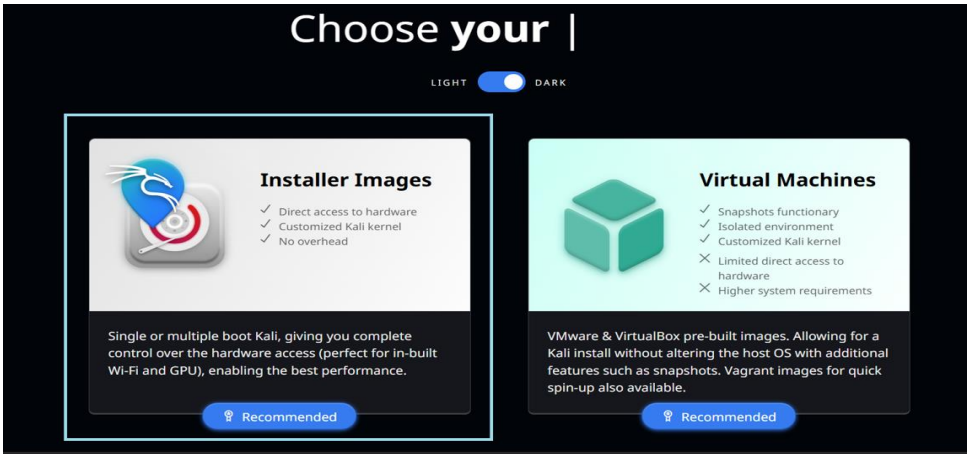


2. Select the platform package for your OS and install
3. Download and install the **Extension Pack** (optional)



Step 2: Go to https://www.kali.org/get-kali/

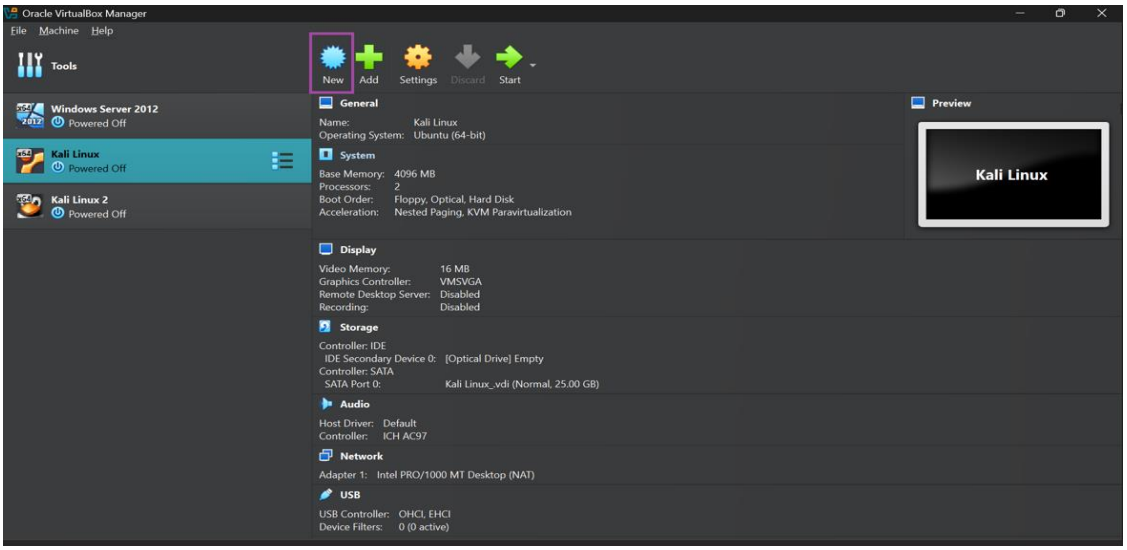
1. Select **Installer Images**



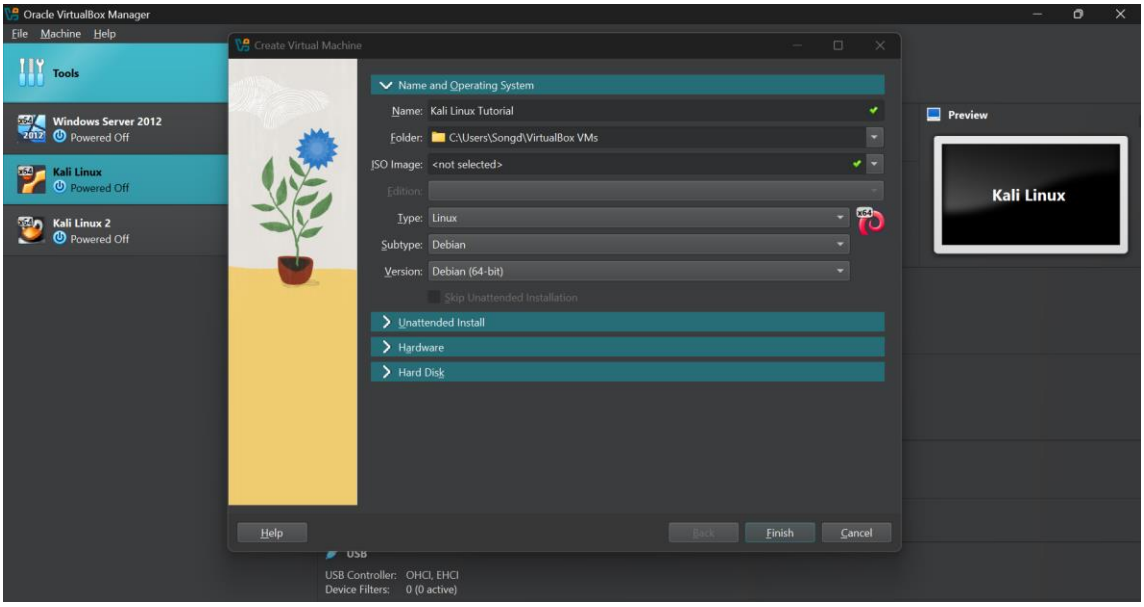
2. Download the **64-bit ISO**

Step 3: Create a new Virtual Machine

1. Open VirtualBox -> **New**

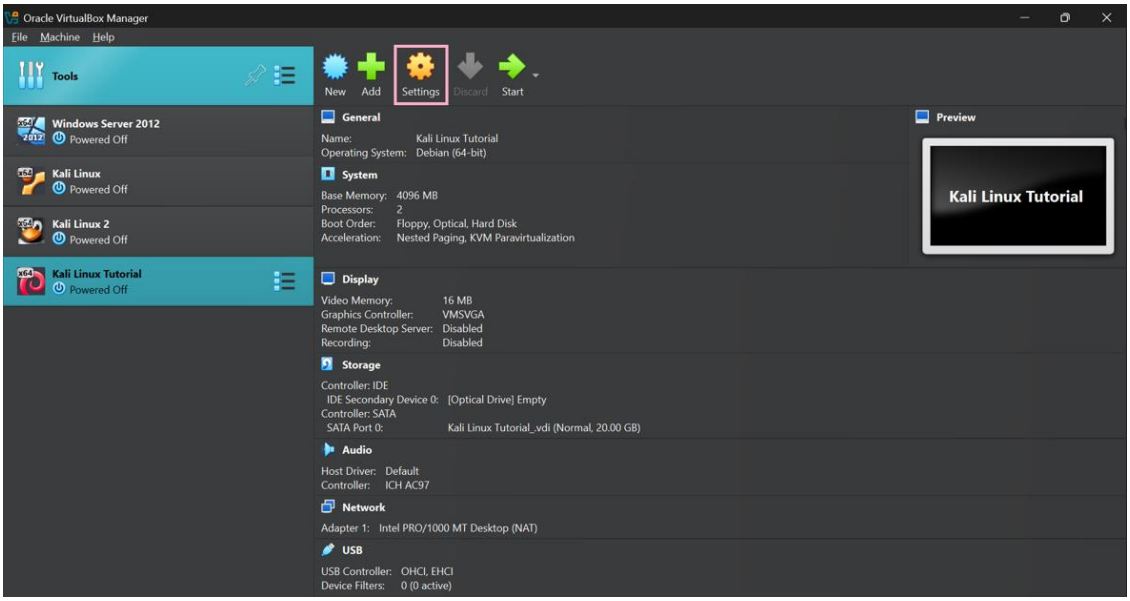


2. Enter a **Name** (e.g., “Kali Linux Tutorial”)
3. Type: **Linux,** Version: **Debian (64-bit)**
4. Click **Next**

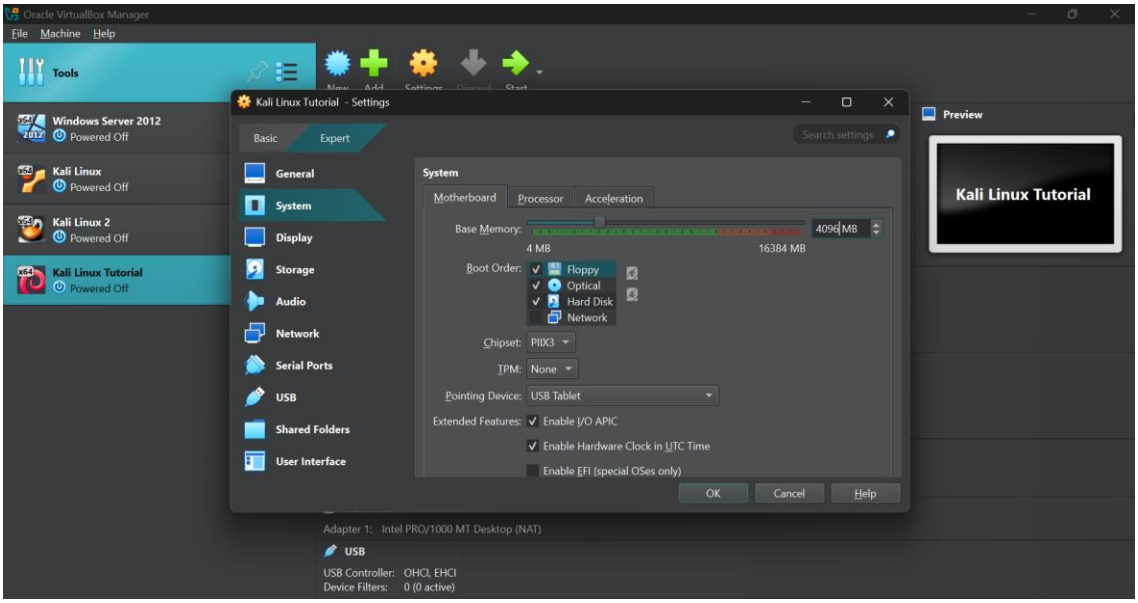


Step 4: Once Virtual Machine is created, allocate Memory and processors

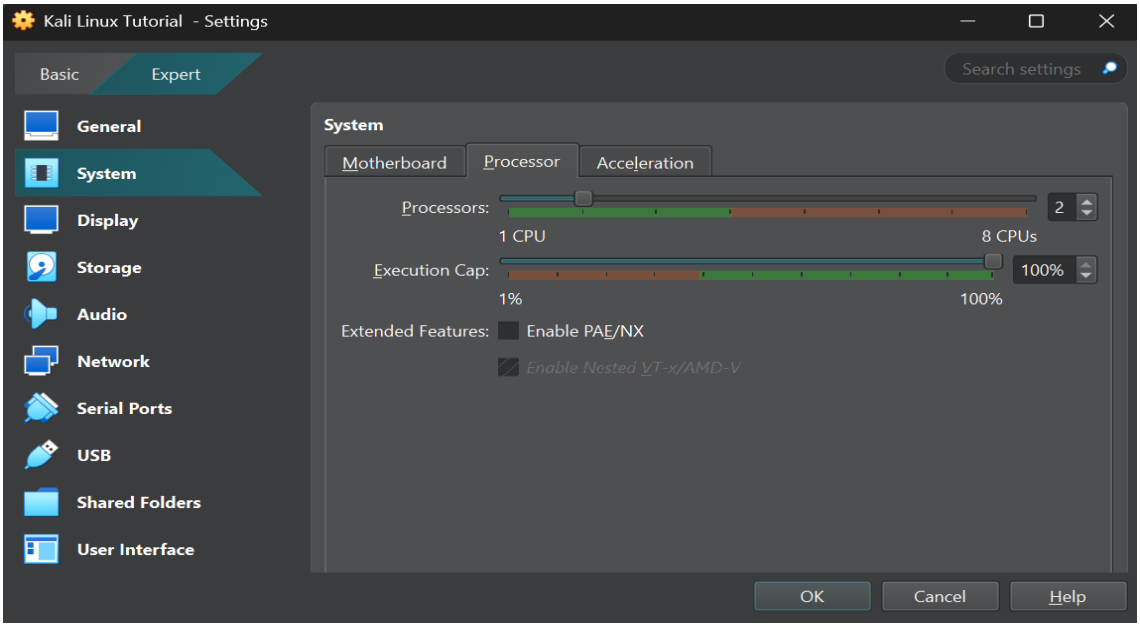
1. Go to **Settings** -> **System**



2. Specify the memory size. Recommended: **4096 MB** (4 GB) or more

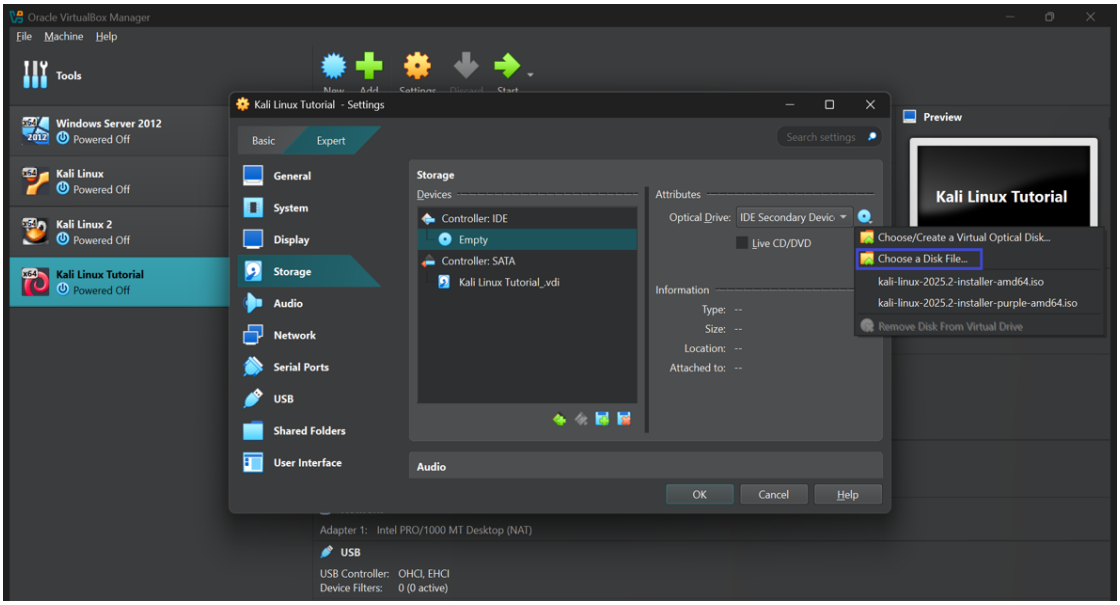


3. Specify the number of CPUs. Recommended: 2 CPUs or more



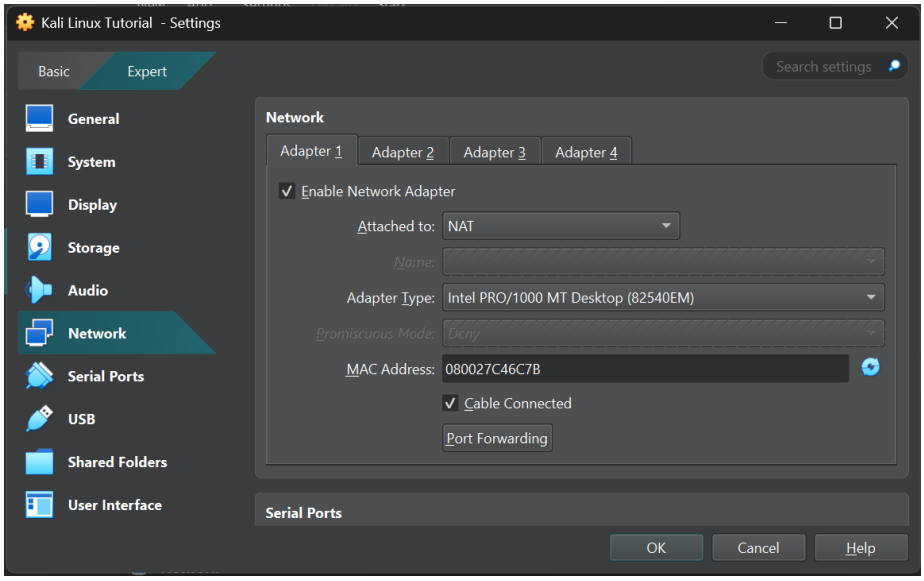
Step 5: Mount the Kali Linux ISO image file

1. Go to **Settings** -> **Storage**.
2. Under **Controller: IDE**, click the empty disk -> **Choose a disk file**
3. Select your Kali ISO -> Click **OK**



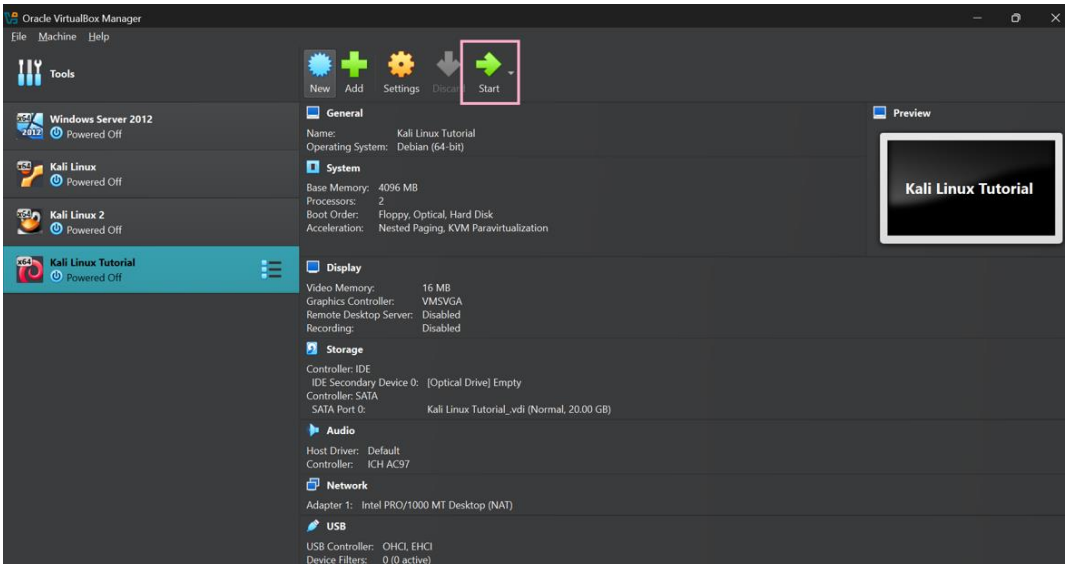
Step 6: Configure Network Settings (Optional)

1. Go to **Settings** -> **Network**
2. Ensure **Attached to: NAT** (default)

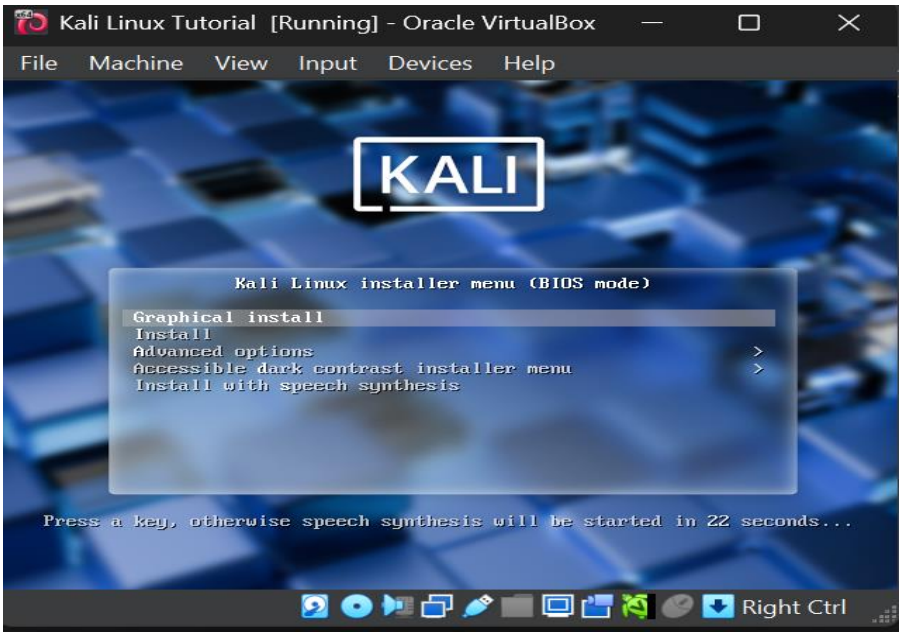


Step 7: Start the Virtual Machine

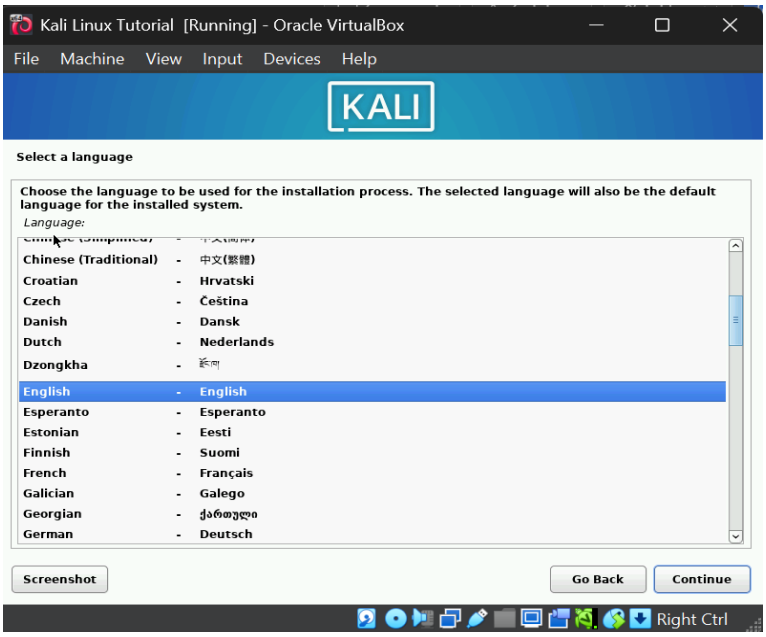
1. Click **Start**



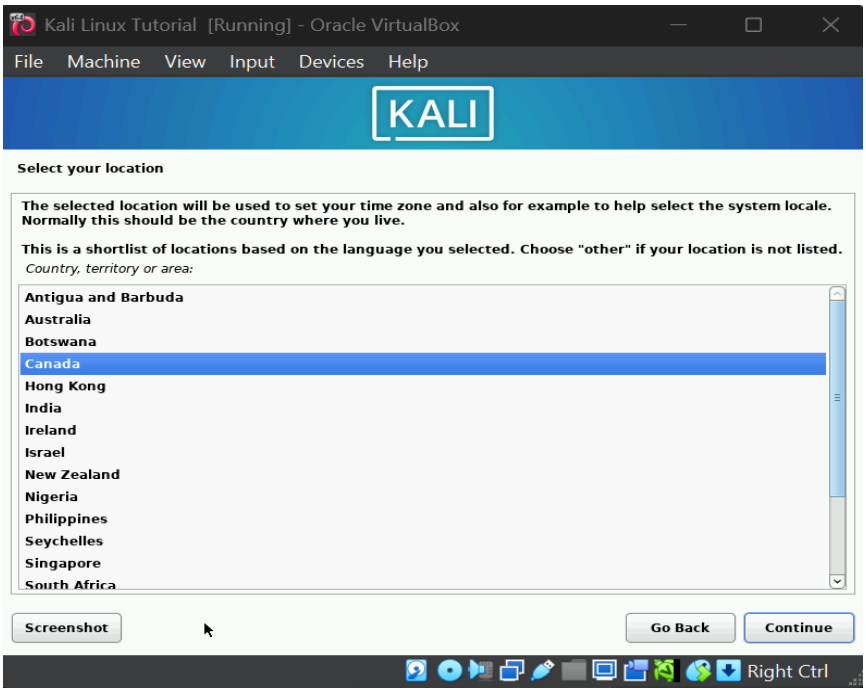
2. Choose **Graphical Install**



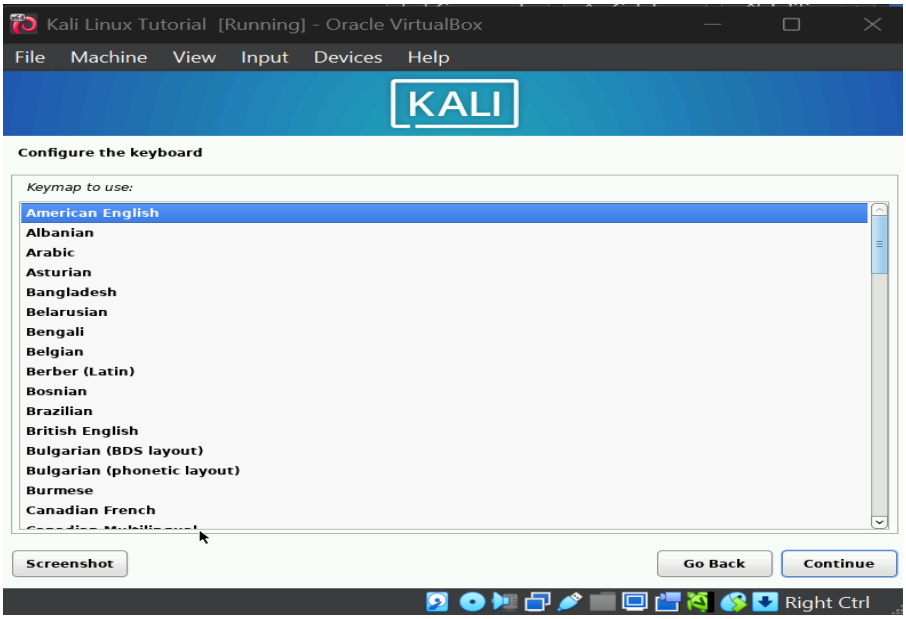
3. Select language



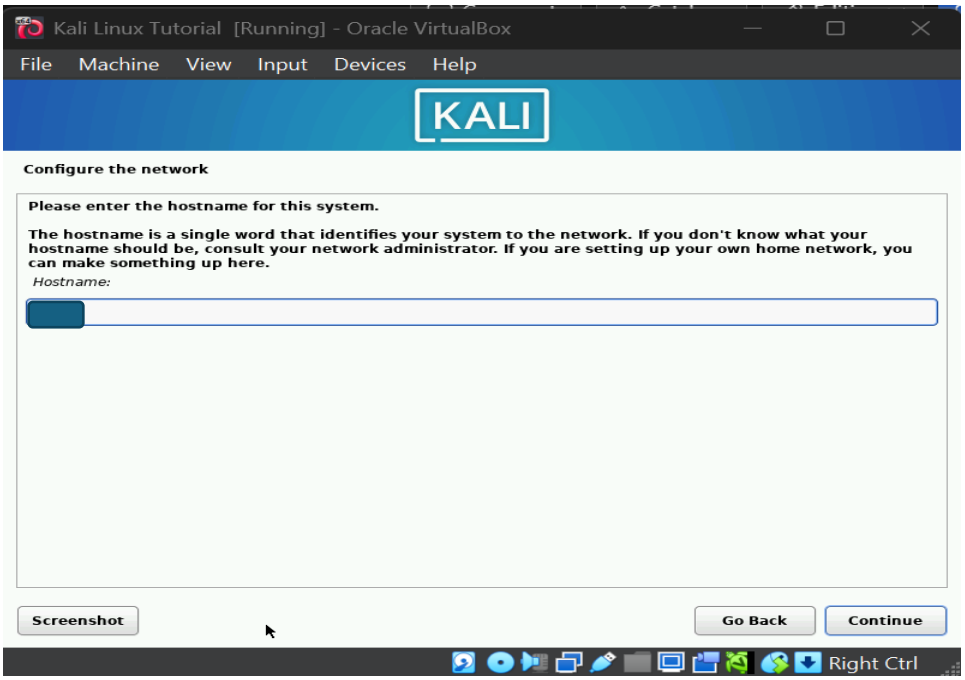
4. Select country



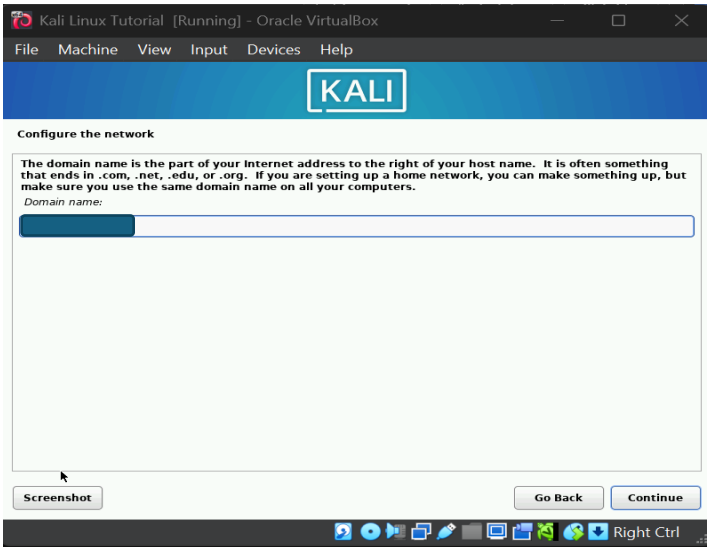
5. Choose keyboard



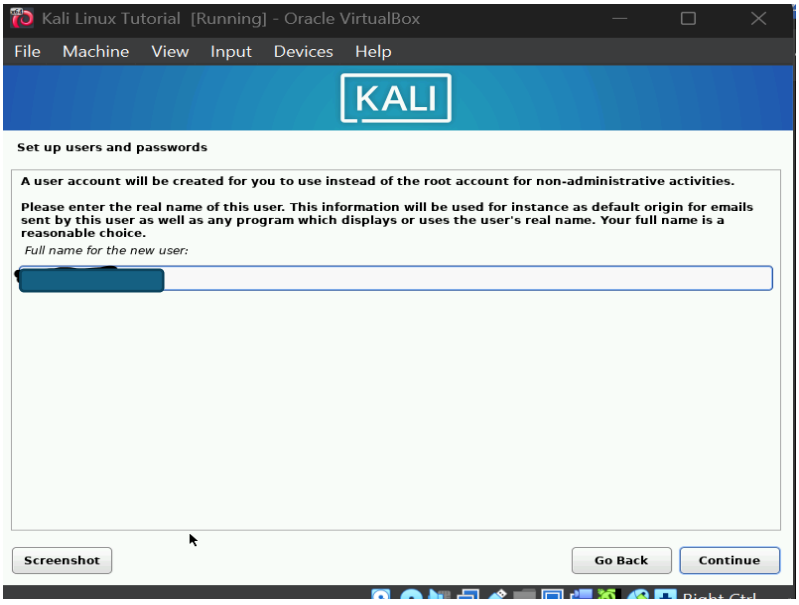
6. Set hostname



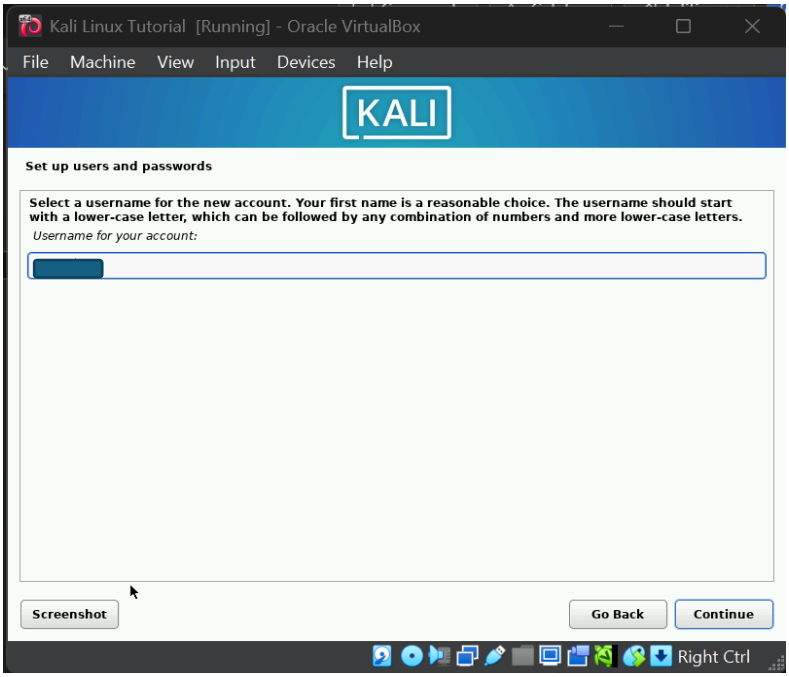
7. Set domain name (Optional)



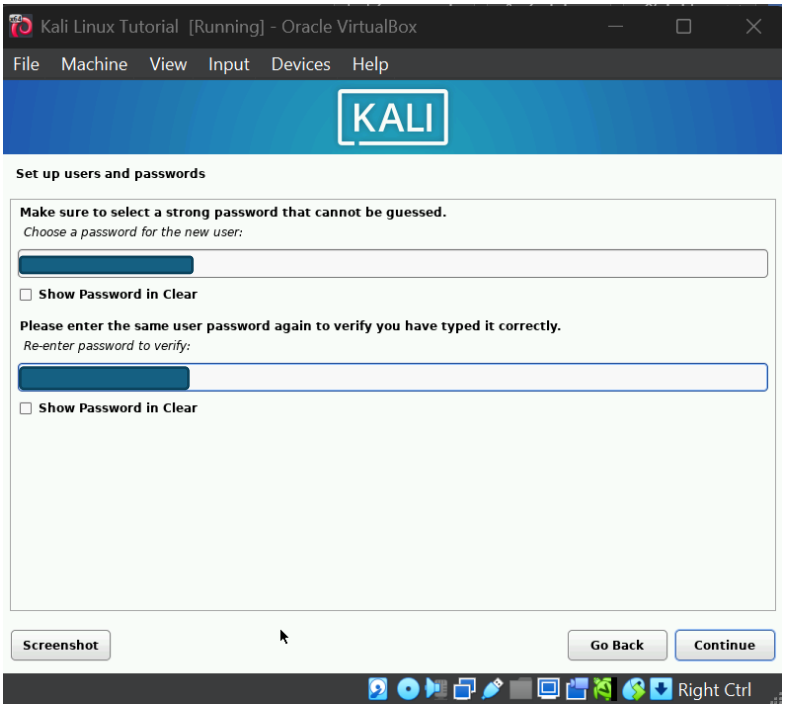
8. Enter full name



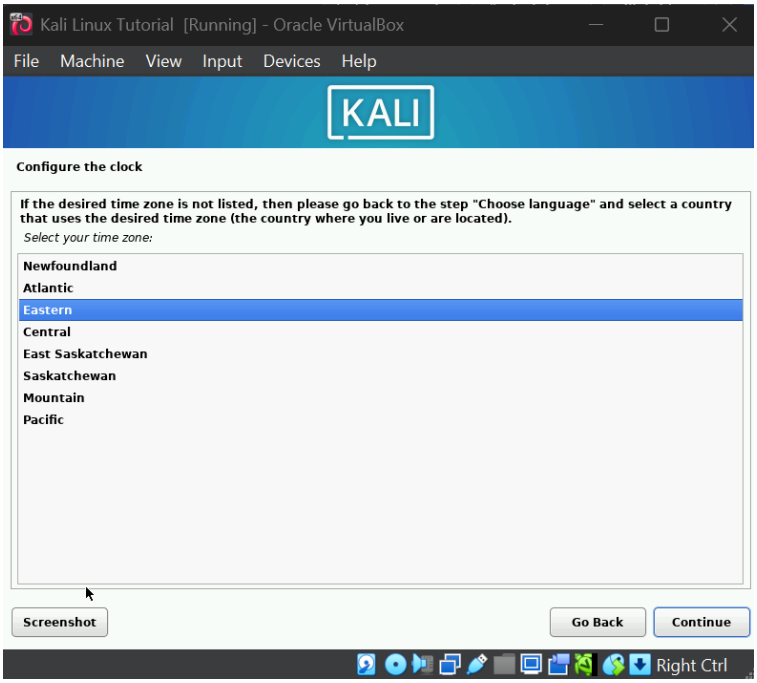
9. Create username



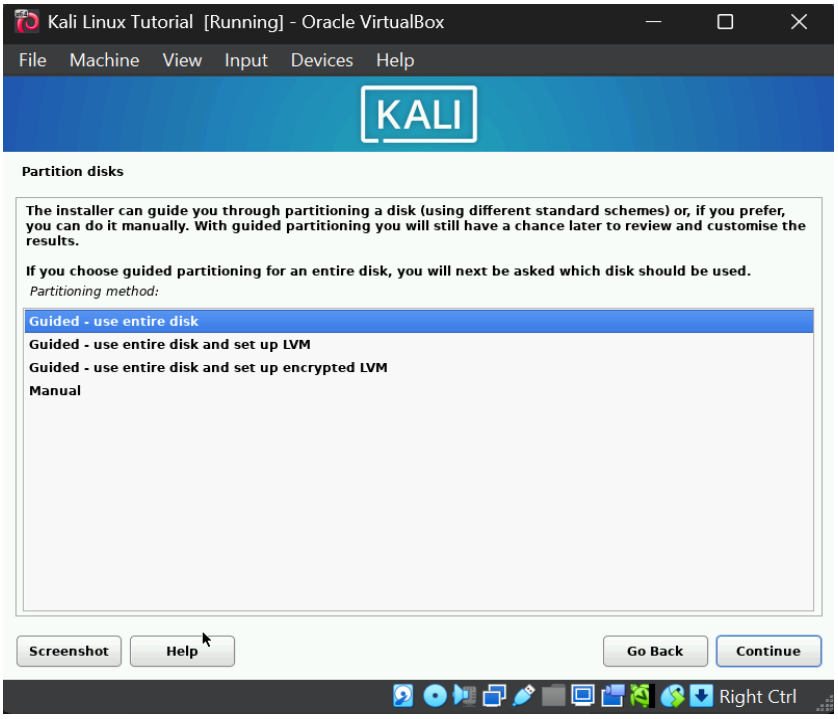
10. Create password



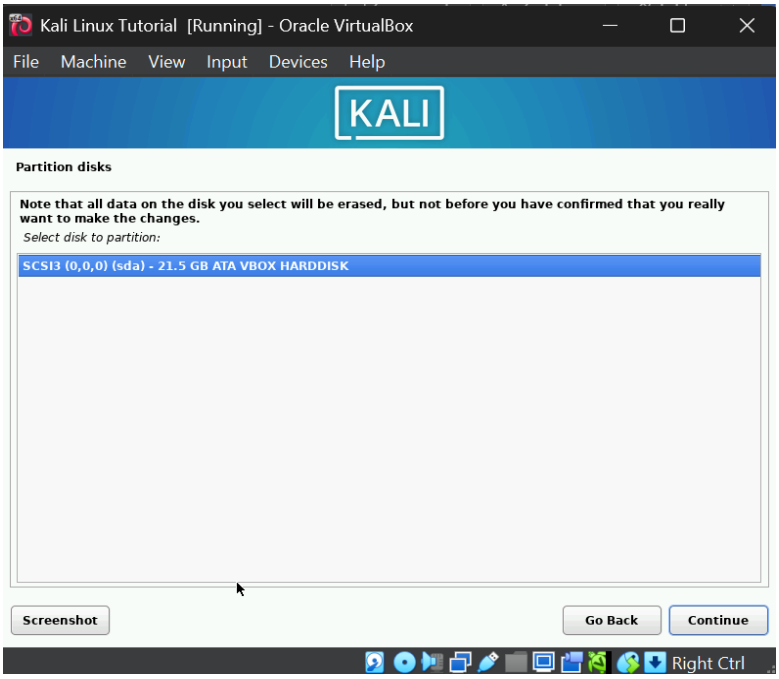
11. Select time zone



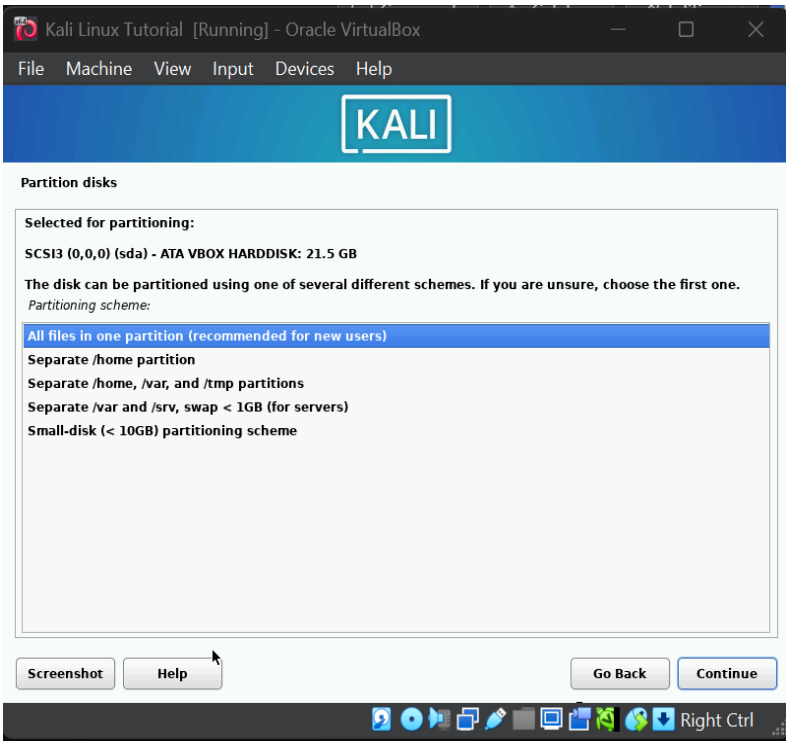
12. Select **Guided – use entire disk**



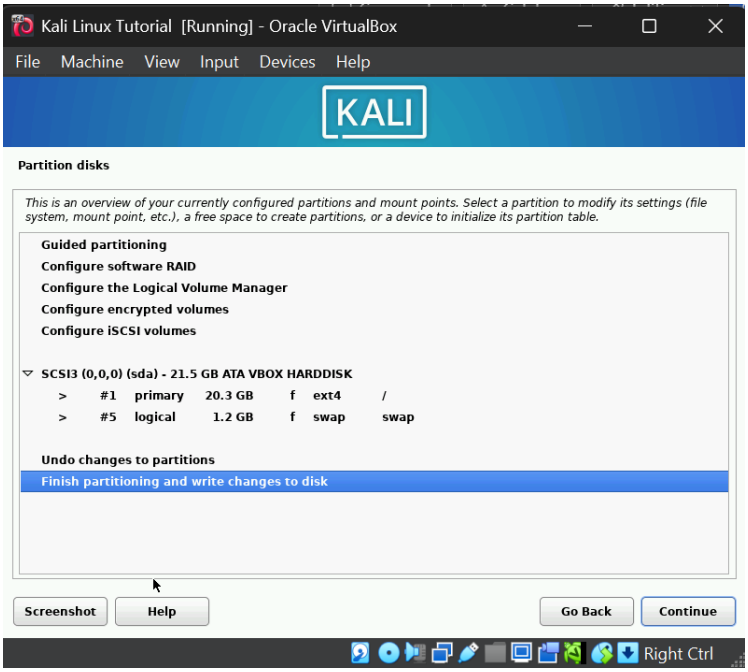
13. Click **Continue**



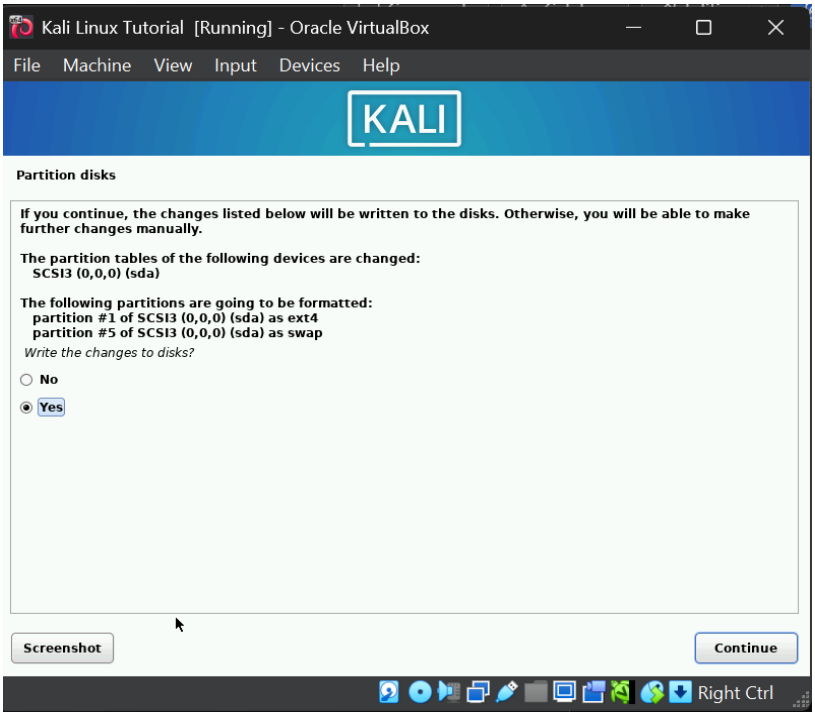
14. Select **All files in one partition (recommended for new users)**



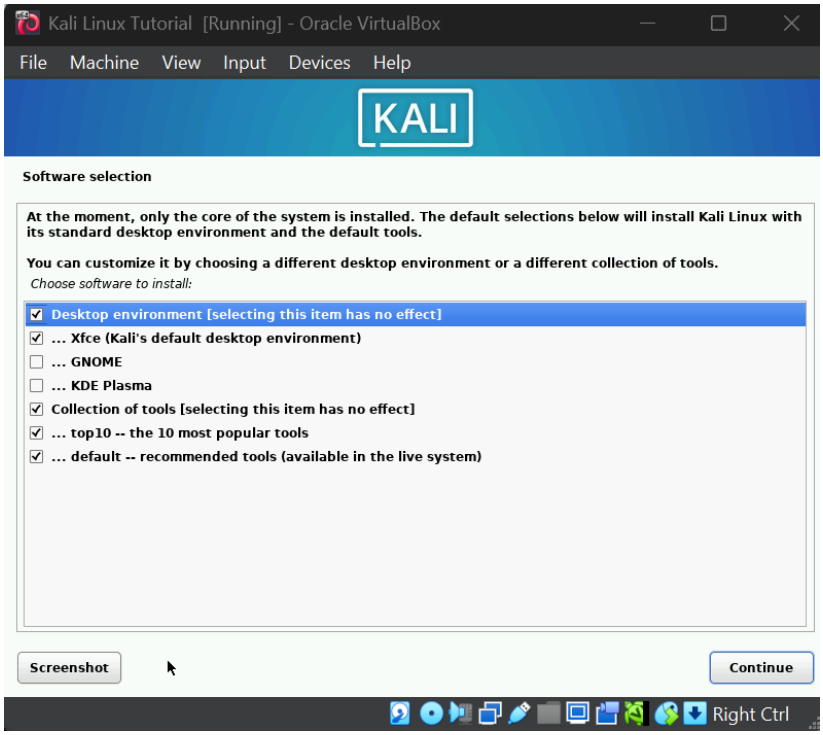
15. Choose **Finish partitioning and write changes to disk**



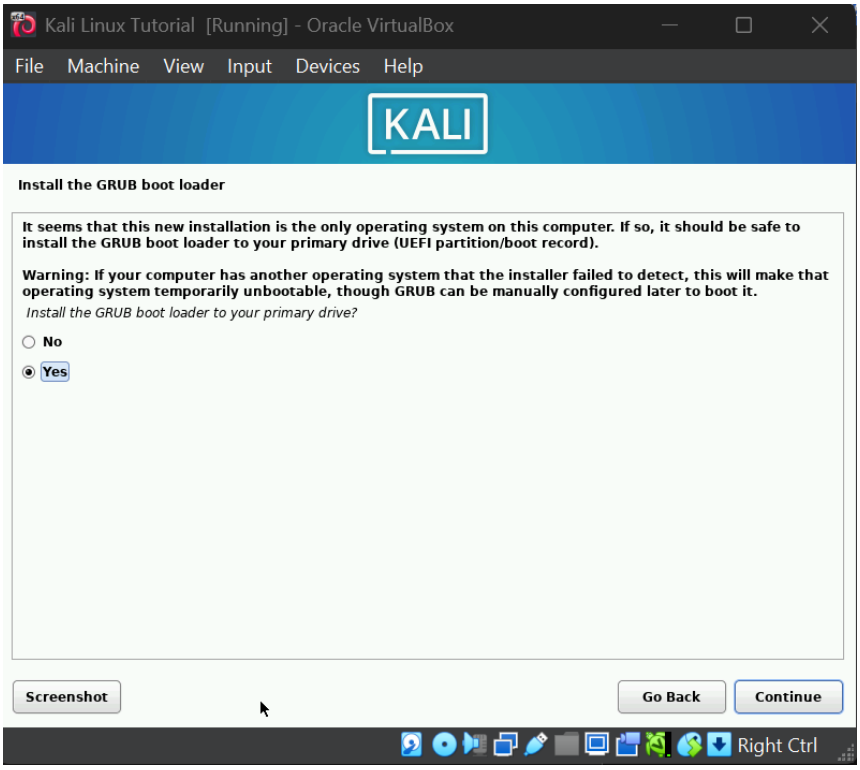
16. Select **Yes** option to write changes



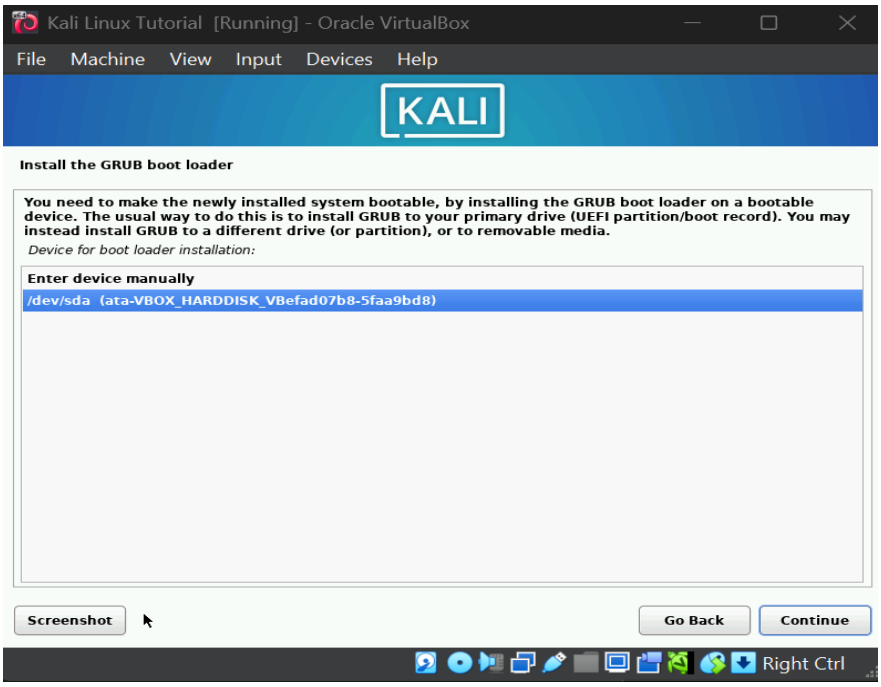
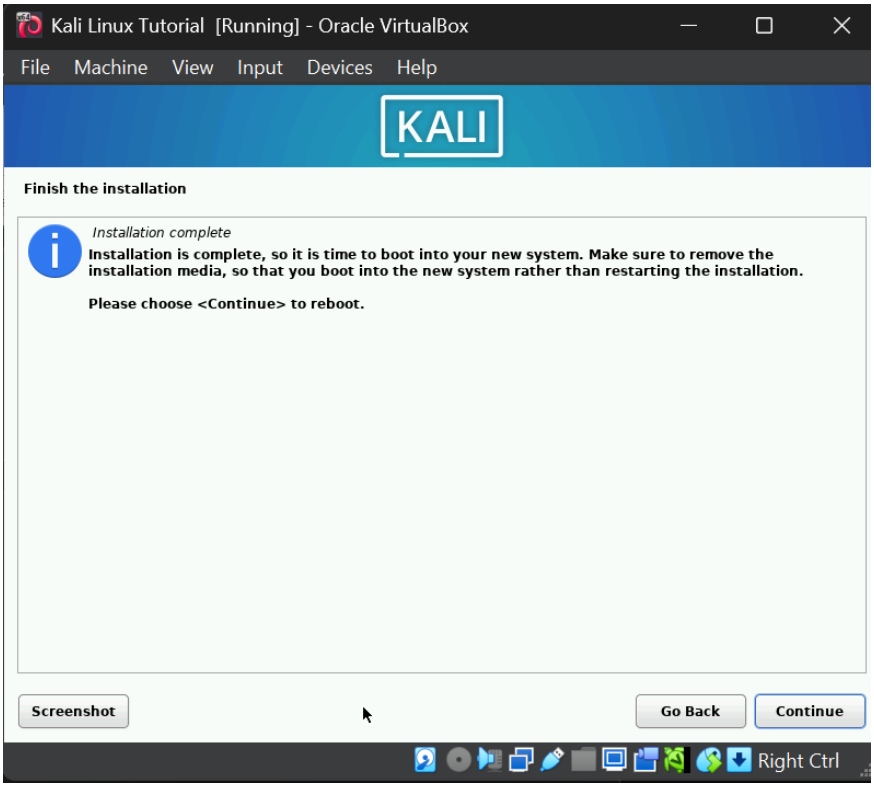
17. Install **Desktop Environment**



18. Choose **Yes** to install **GRUB Bootloader**



19. Select **/dev/sda** -> Click **Continue**



20. Reboot VM