

OSS ASSIGNMENT

KALI LINUX INSTALLATION PROCESS *ON* VIRTUAL MACHINE

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WHAT IS VIRTUAL MACHINE?

Virtual machine is a software file that enables the user to run applications and operating systems in an isolated environment by abstracting resources from the physical host machine. Two most popular virtual machines widely used are VIRTUALBOX and VMWARE.

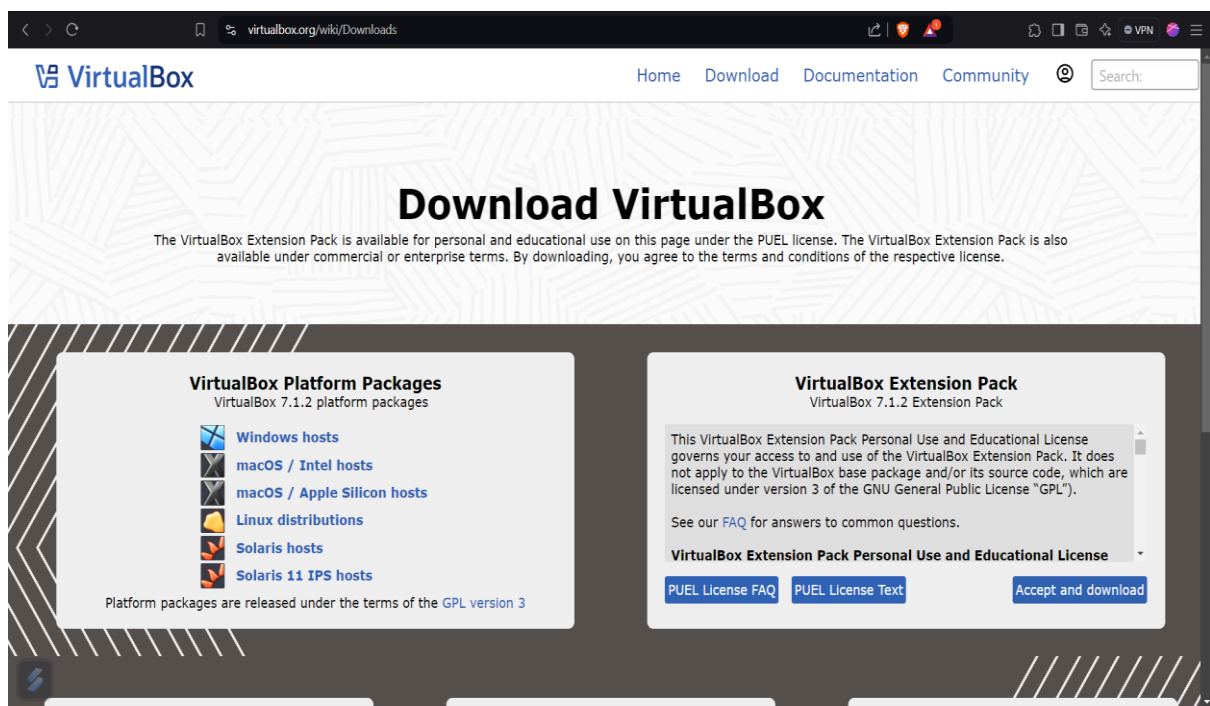
INSTALLING A VIRTUAL MACHINE

Here, I am going to install **Oracle VM VirtualBox** which is a free and open-source virtualization platform developed by Oracle Corporation.

Step 1: Downloading the VirtualBox Windows Setup Package

Visit the official VirtualBox download site from the attached link...

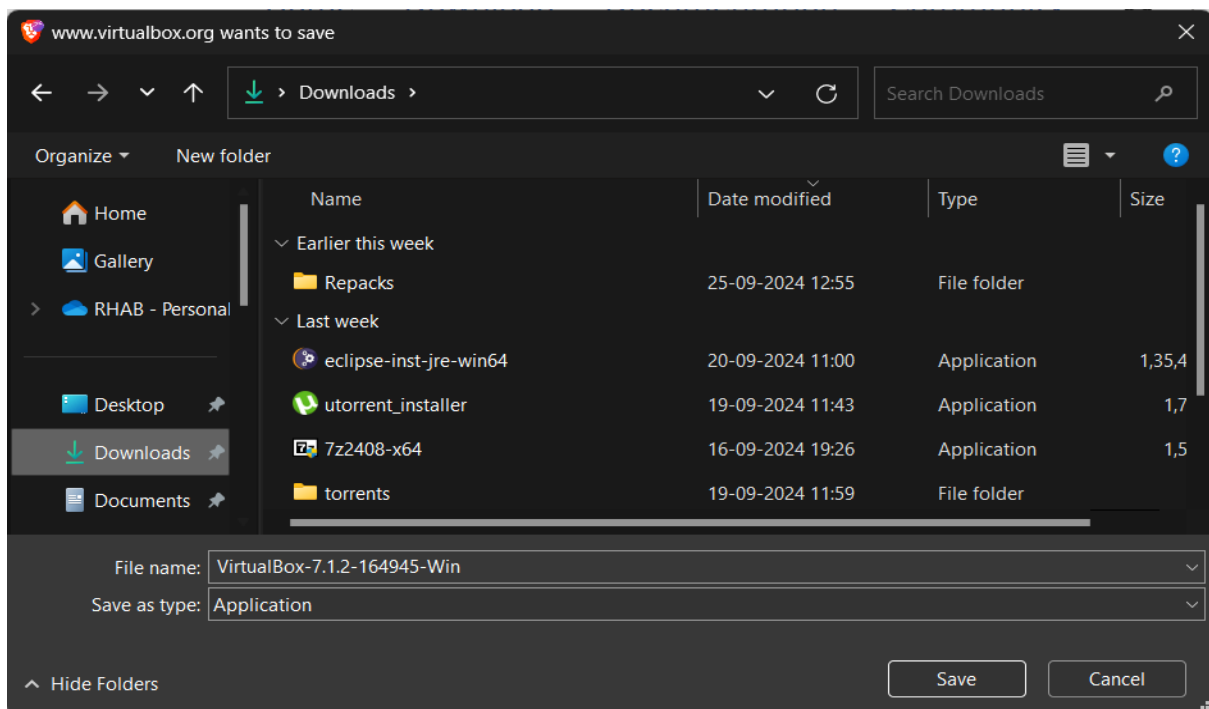
<https://www.virtualbox.org/wiki/Downloads>



Select windows hosts from the VirtualBox Platform Packages.

Note: my virtual machine would be running on windows operating system, so I selected windows host option. For macOS and Linux, other options are available...

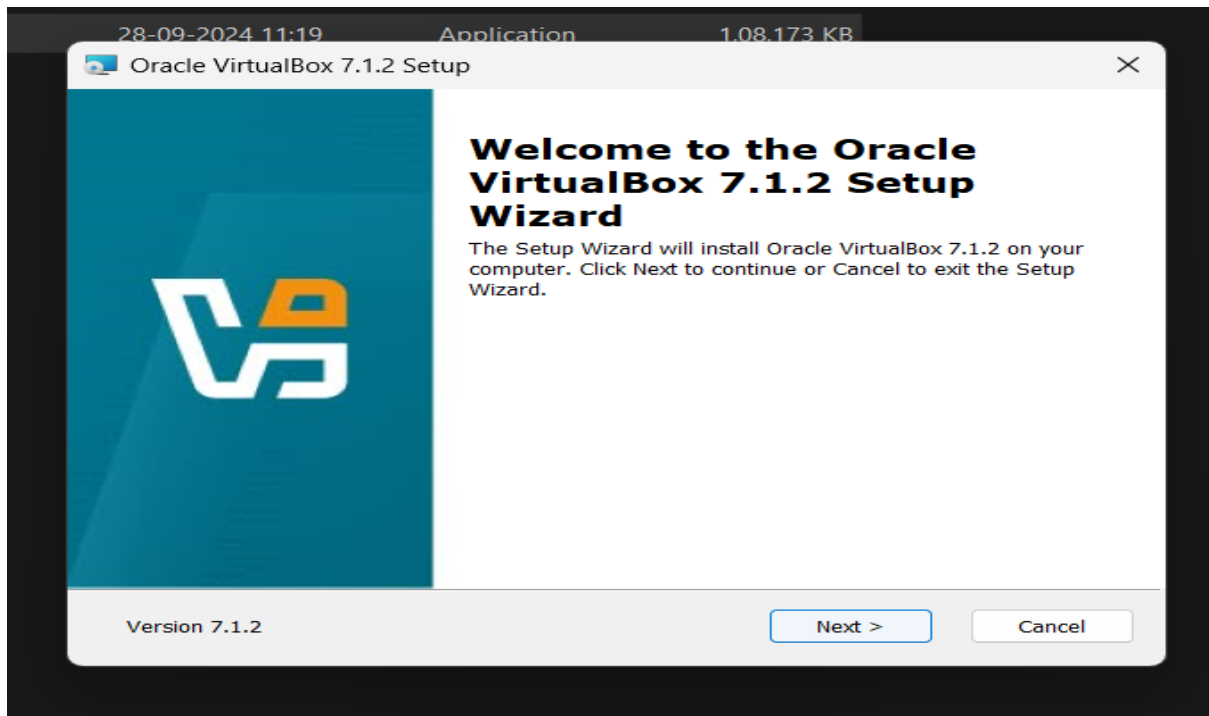
After selecting the package, it will download the installer to the specified path.



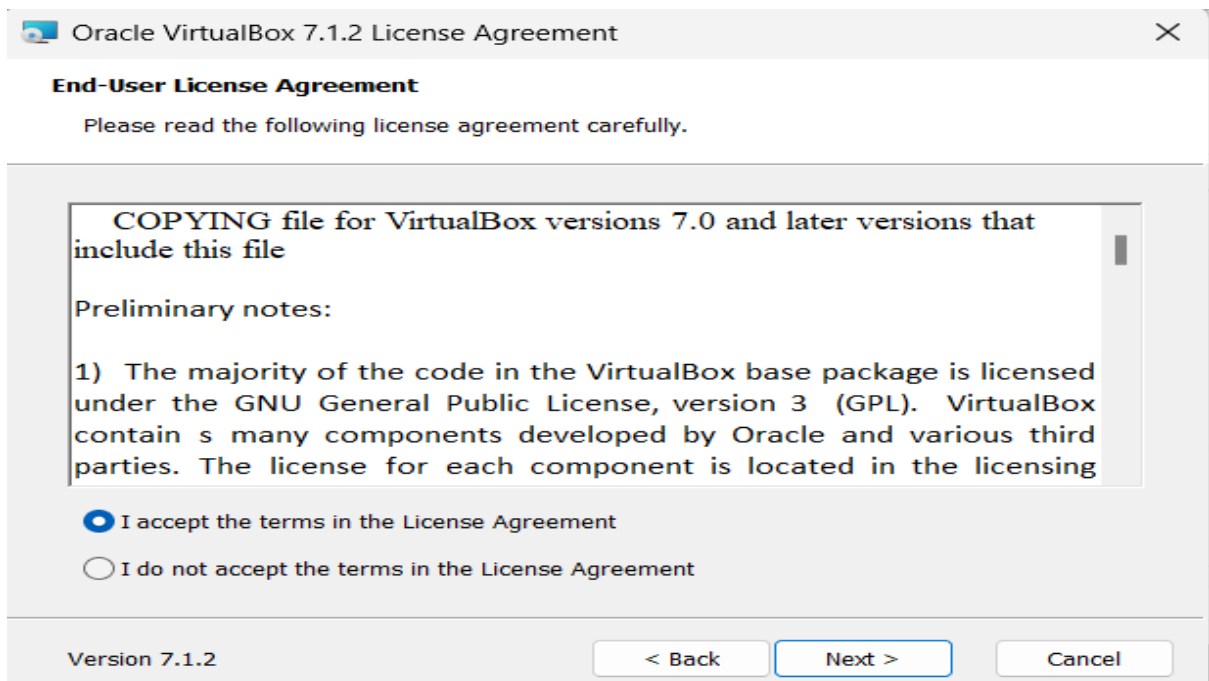
Click on save and the application will be downloaded which is of 106 MB size.

Step 2: Installing VirtualBox from the setup

Double click on the VirtualBox setup file. It would open up a VirtualBox setup wizard window.

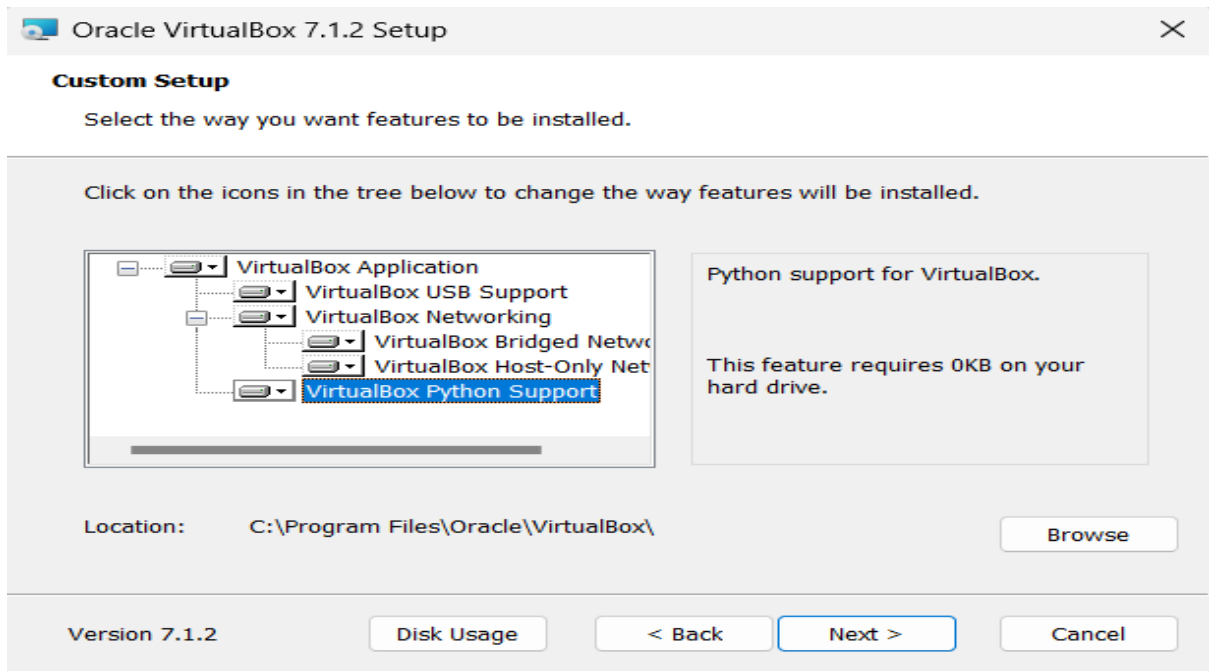


Click on Next. This would navigate to the License agreement.

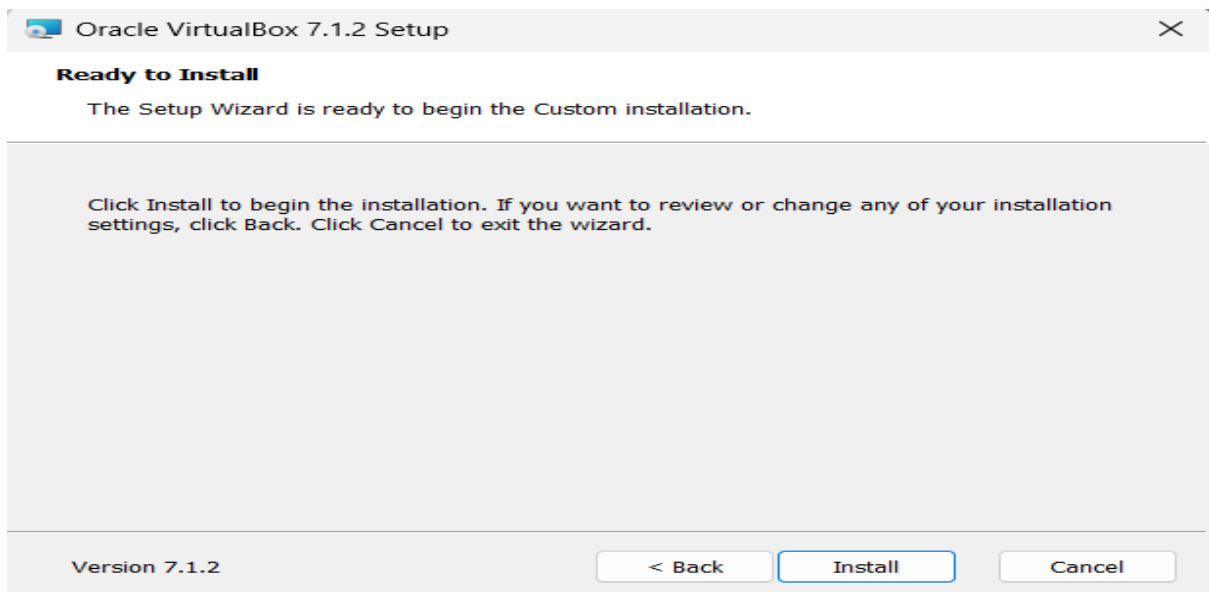


Select the 'I accept the terms in the License Agreement' option and click Next.

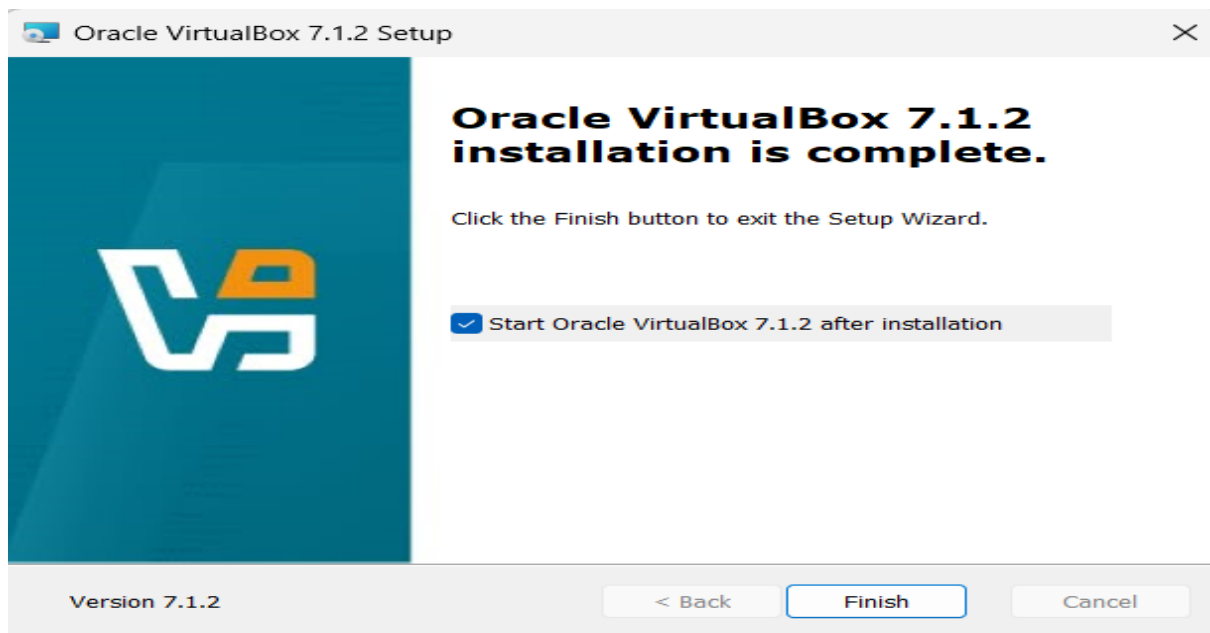
This window helps for customized setup. Let it be default and click Next after selecting the Location.



Now we are ready to install the software. Click Install and it will begin the installation.



The installation is complete. Click on finish and would exit from the setup wizard.

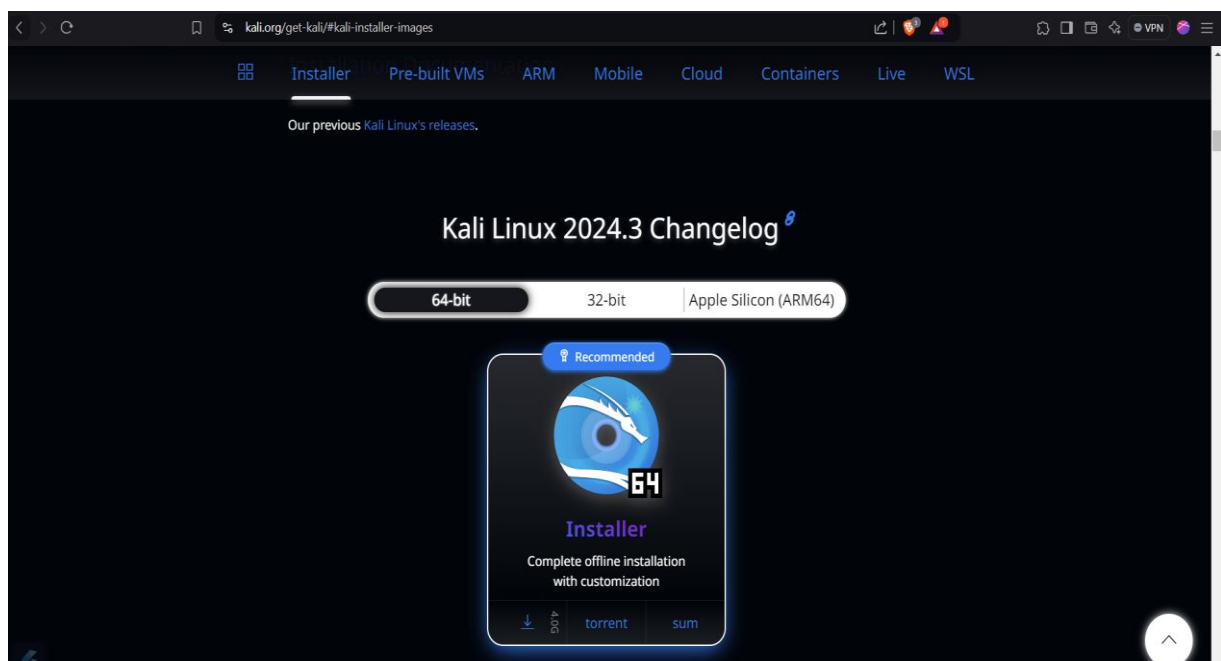


Step 3: Downloading Kali Linux ISO file

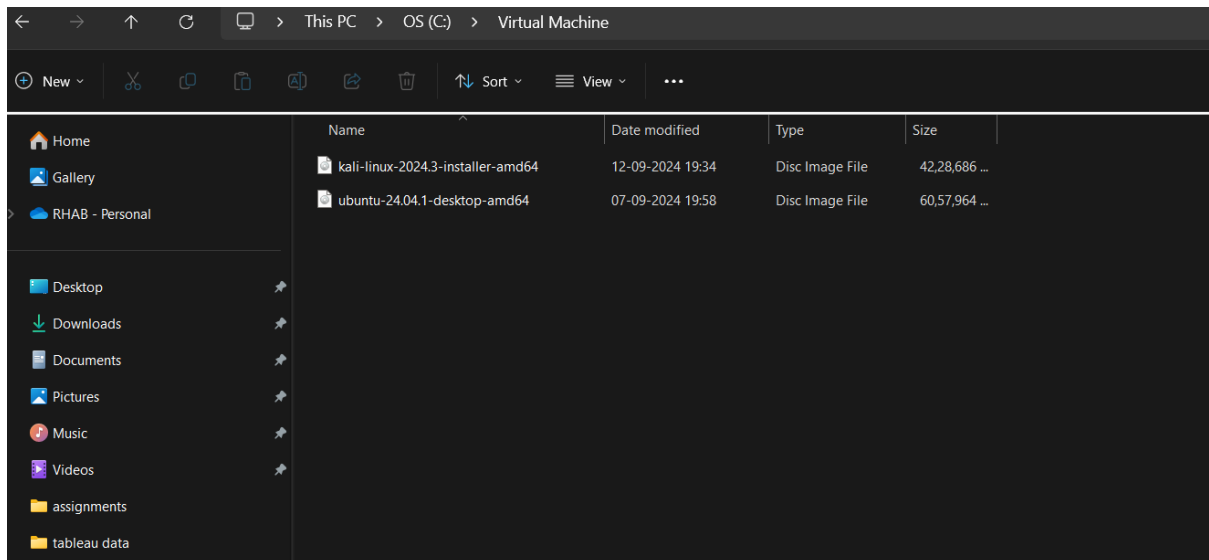
After completing the installation of VirtualBox, all we need is to create a new Virtual Machine of Kali Linux as Operating System. To do that, we need to download Kali linux ISO file available on the given link:

<https://www.kali.org/get-kali/#kali-installer-images>

This will navigate to the page given in the below image.



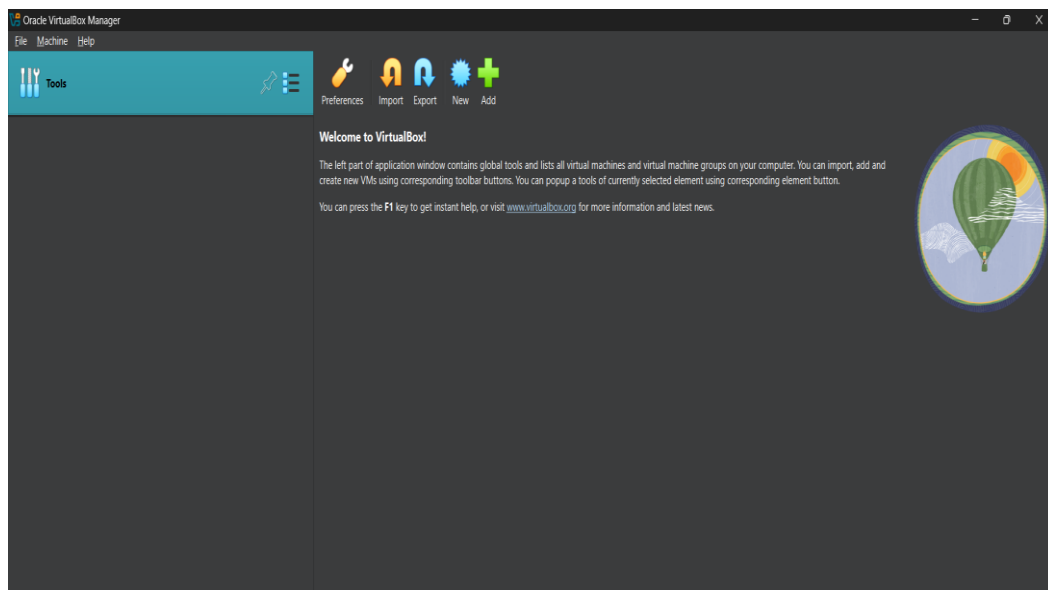
Select the Kali Linux 64-bit installer and download the ISO image file which would be 4GB in size.



For saving the file, I created a new directory in the C drive with the name 'Virtual Machine' where I would like to store all my iso files which would be easy for setup.

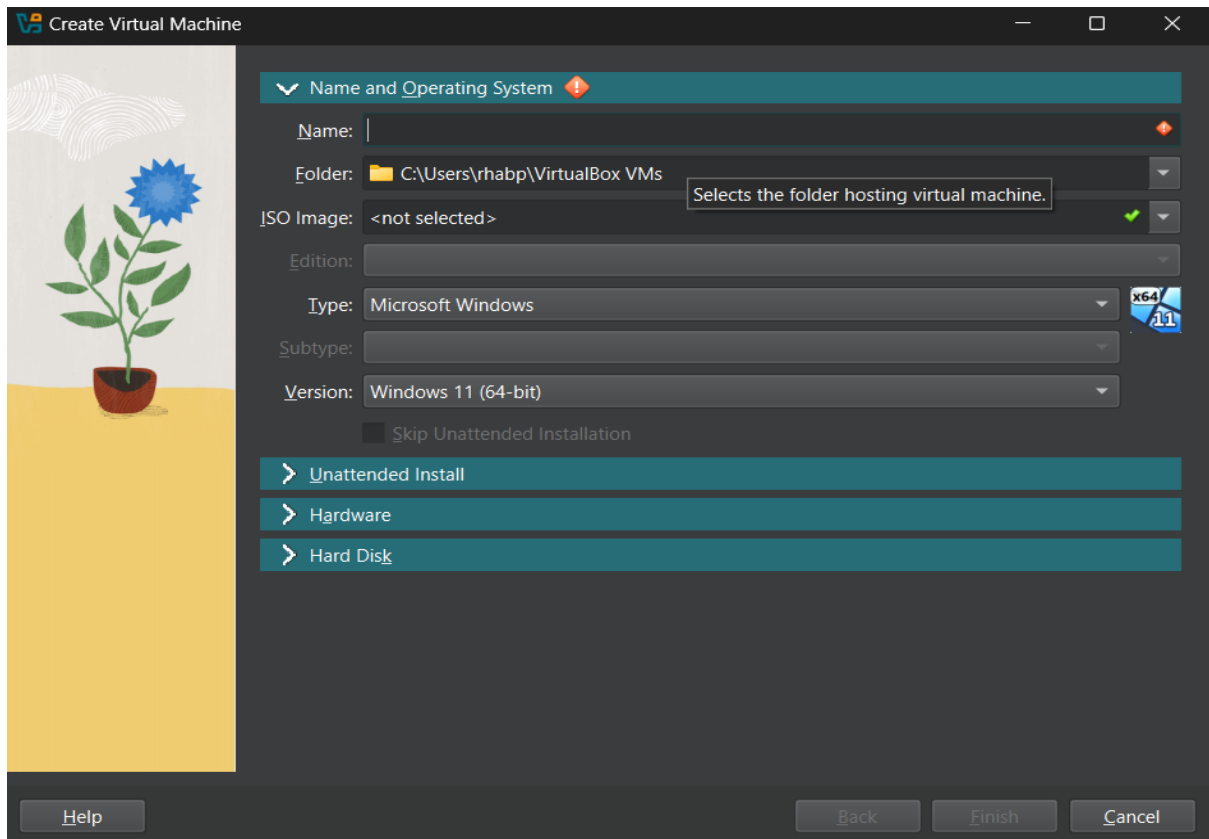
Step 4: Creating a New Virtual Machine in VirtualBox

Open the VirtualBox application which would open the home page as shown below:

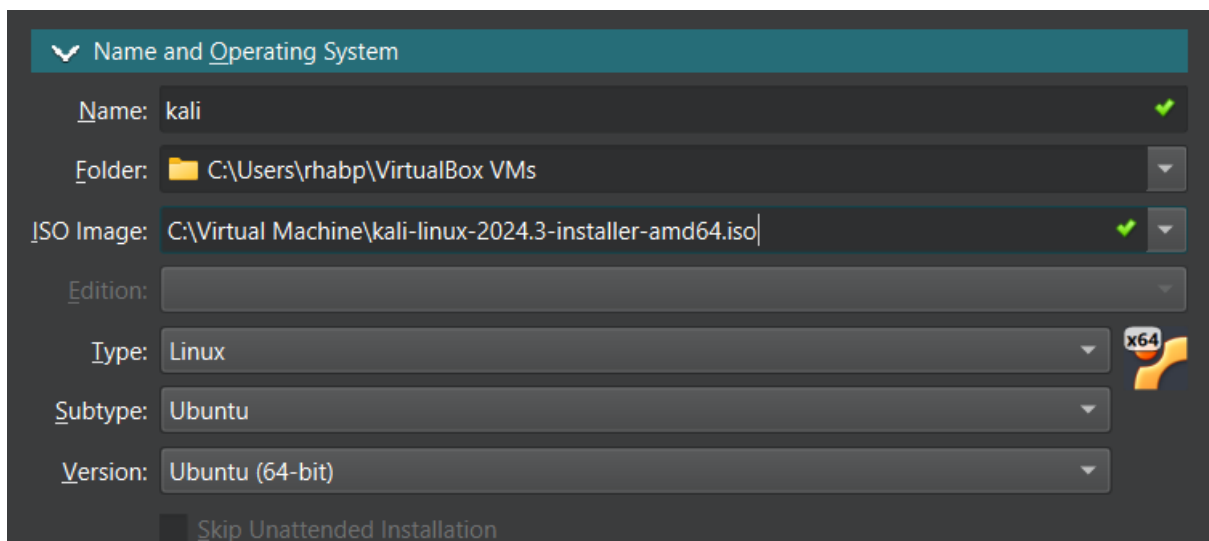


Click on New option from the above options provided (or press Ctrl+N) for creating a new virtual machine.

This would open a window as shown in the below figure...



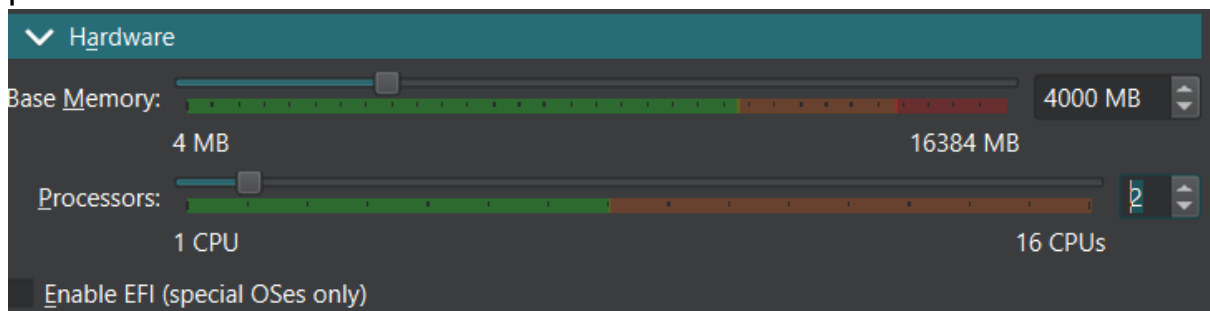
Firstly, we need to fill up the 'Name and Operating System' menu...



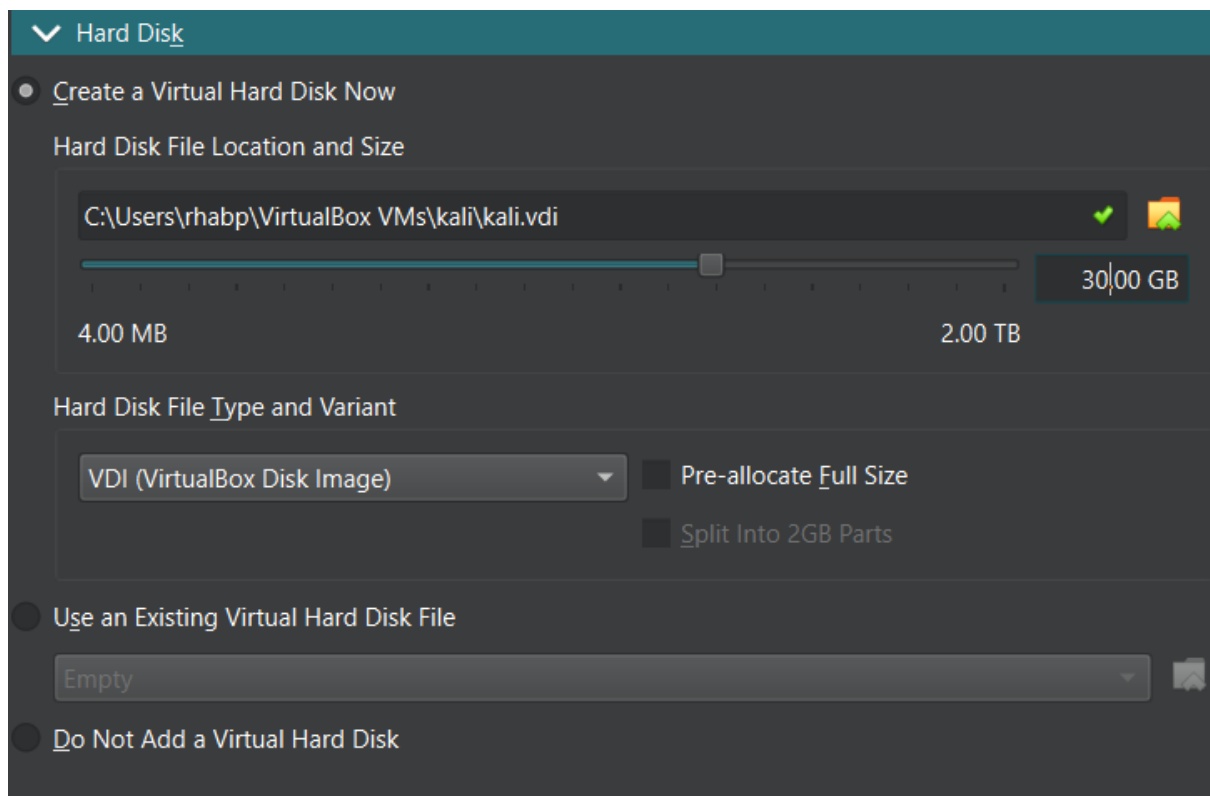
In this menu, provide the name of the virtual machine (could be anything) and the ISO image we downloaded and saved in the 'Virtual Machine' folder of C drive.

Let the rest of options would be default values.

In the Hardware menu, I allocated 4000MB of RAM to my virtual machine which would be enough to run Kali Linux. Also allocated 2 processor cores to it.

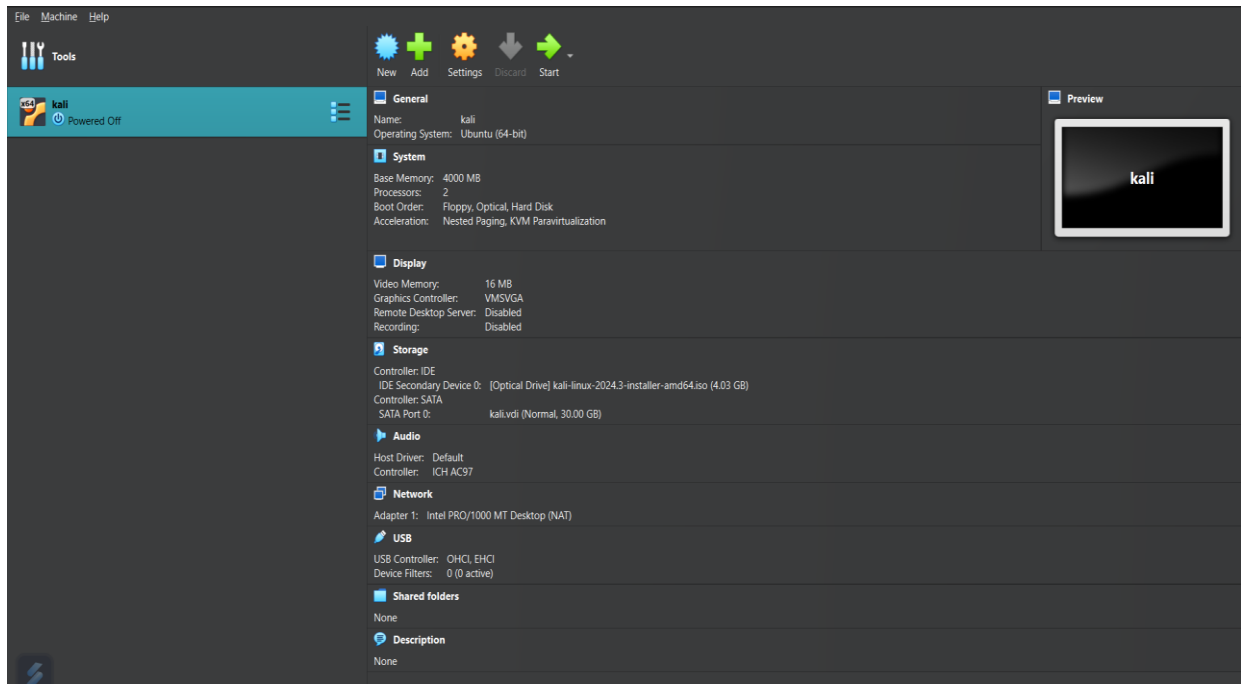


Moving to the Hard Disk Section, I allocated 30 GB of storage which would be enough.



After completing all the mentioned steps, click on finish. Finally, virtual machine which I named 'kali' is ready to go.

The below given figure would provide brief summary of the virtual machine created.



Step 5: Installing Kali Linux in the Virtual Machine

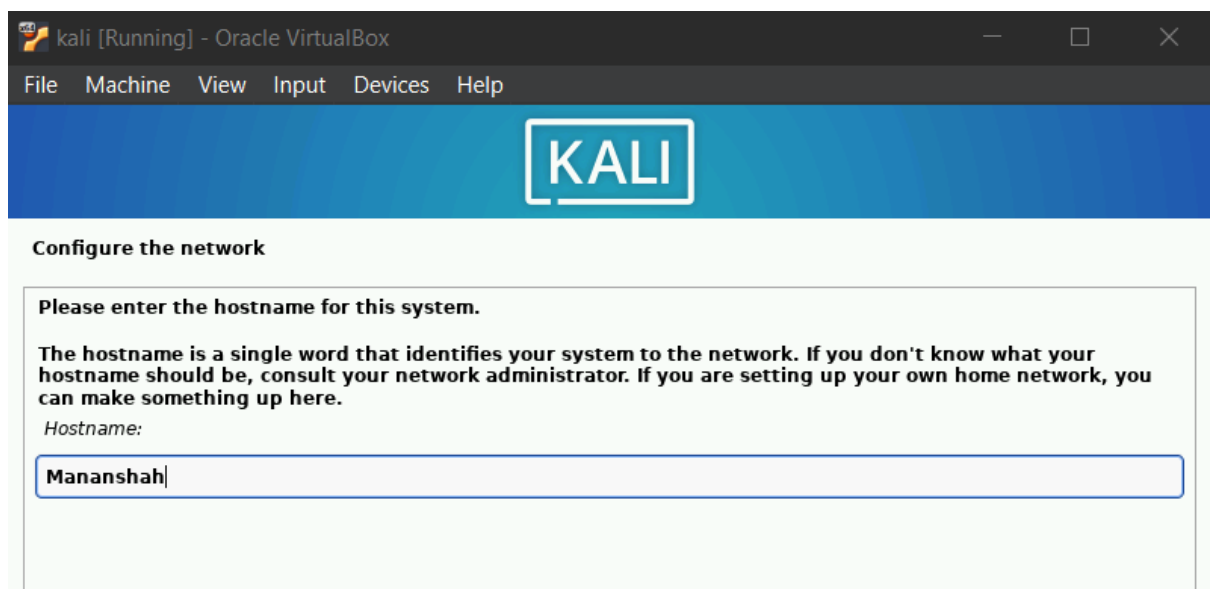
Click on Start option. It would start the kali virtual machine. This opens a new VirtualBox window.



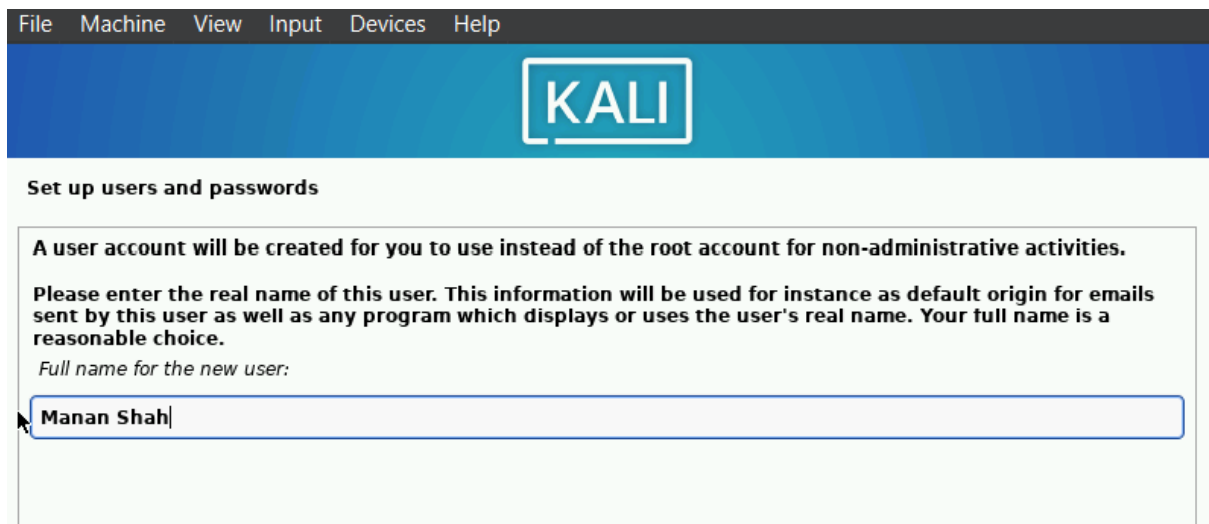
There are various options of installation provided. I have selected the first option (Graphical install).



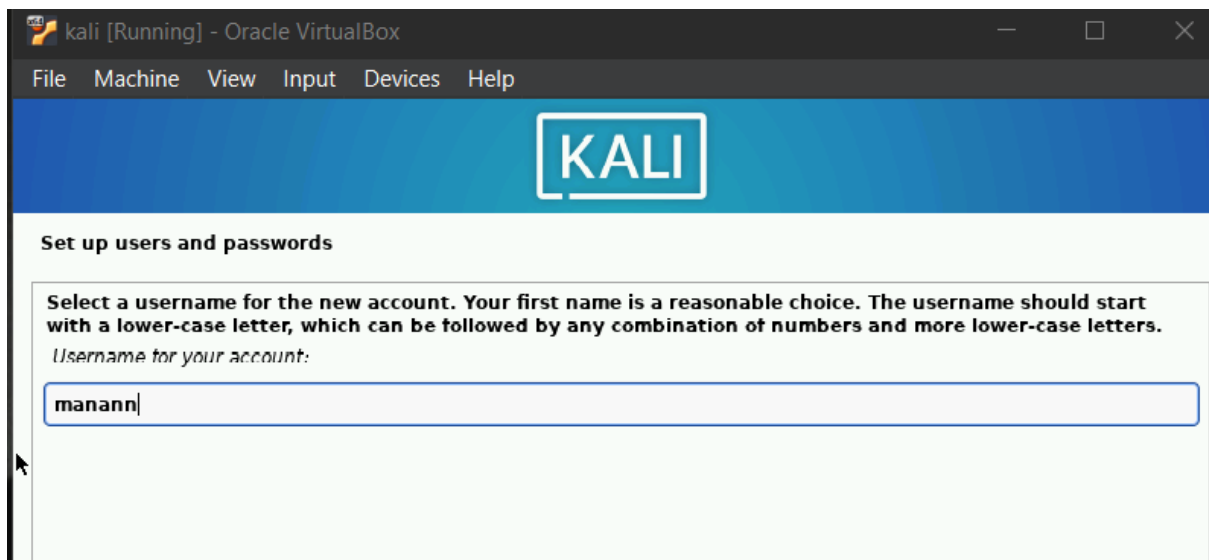
Select a language from the list of languages provided. Also asked to select a location for time zone.



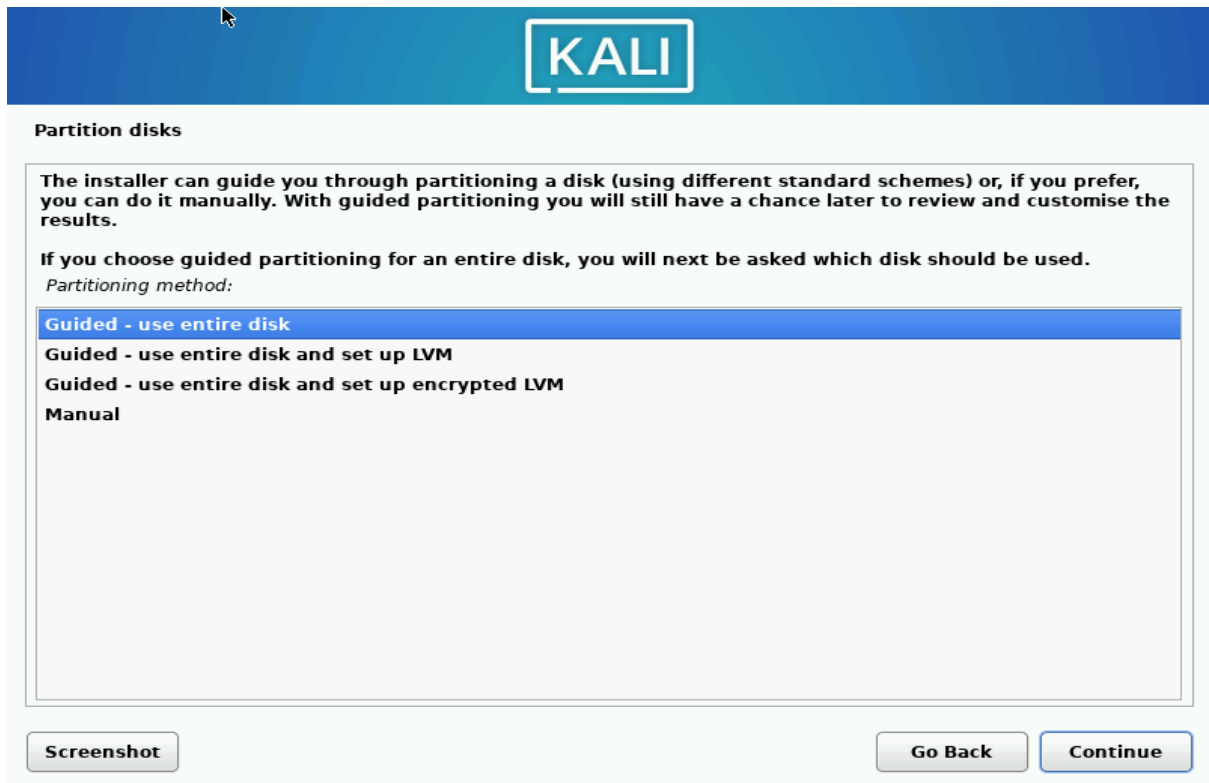
Enter a hostname and domain for identification purpose. I have given my laptop's name.



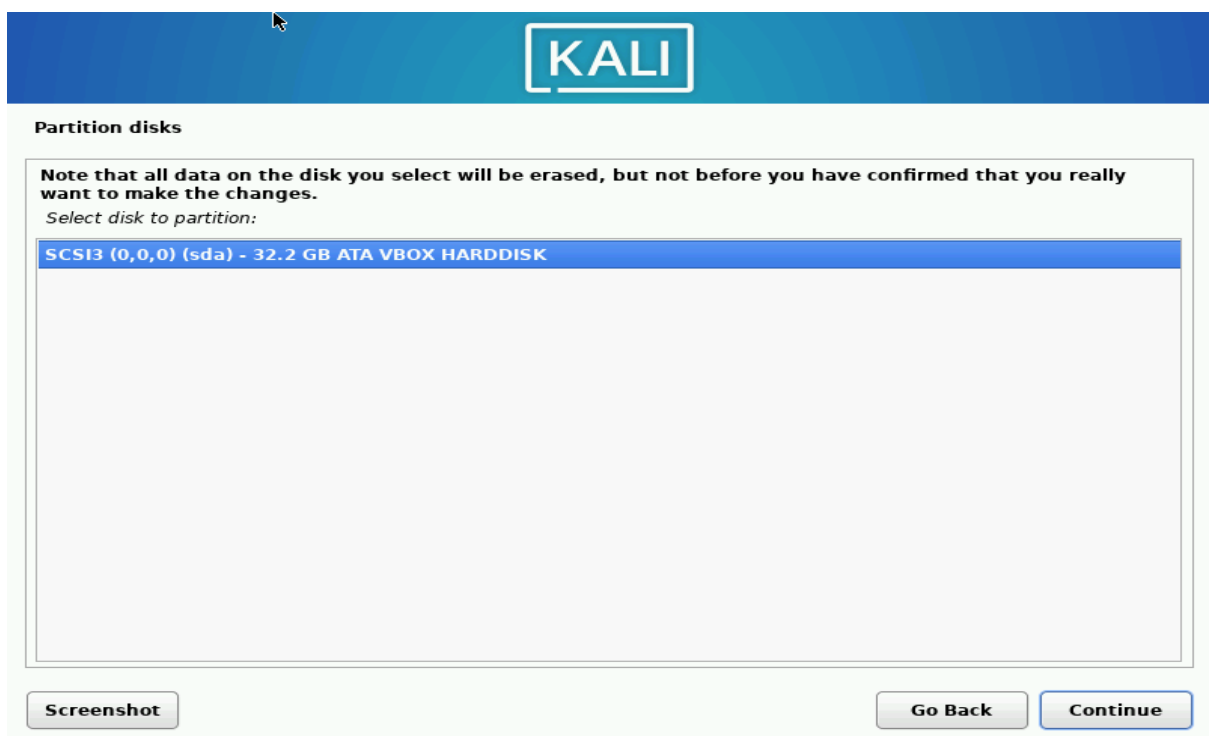
Enter the full name of the user for account purpose.



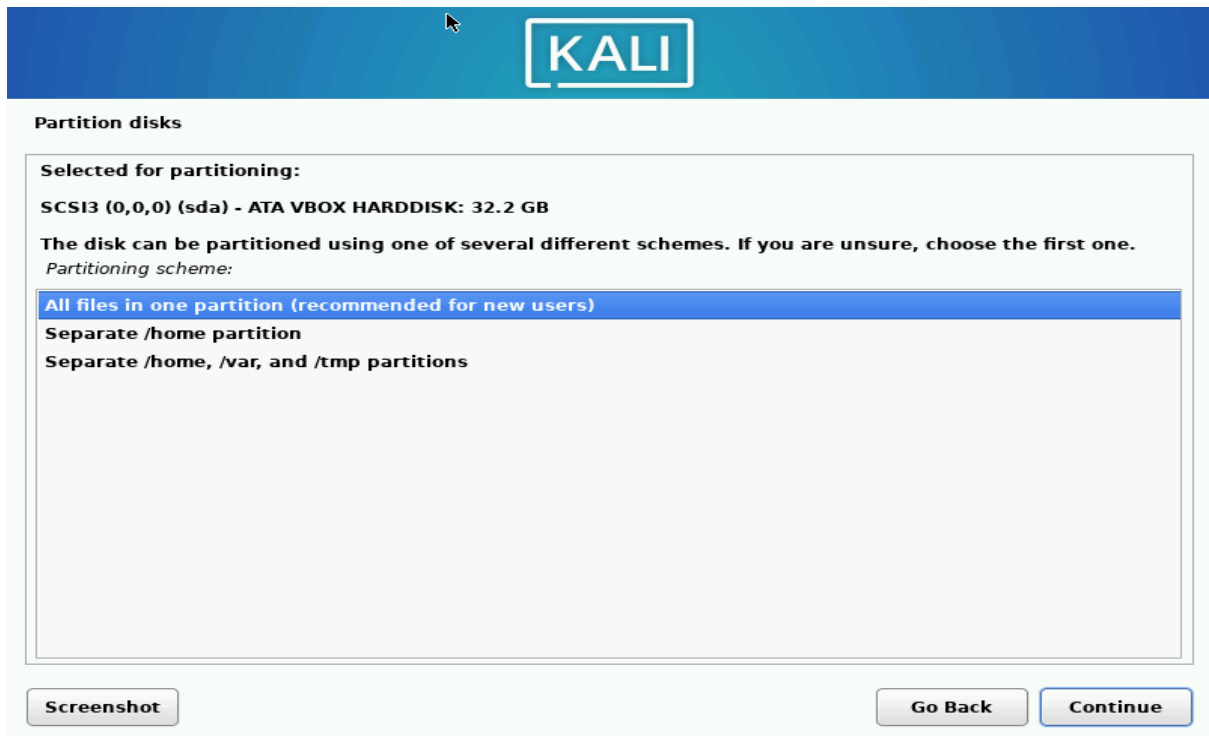
Set up a username and password for the account.



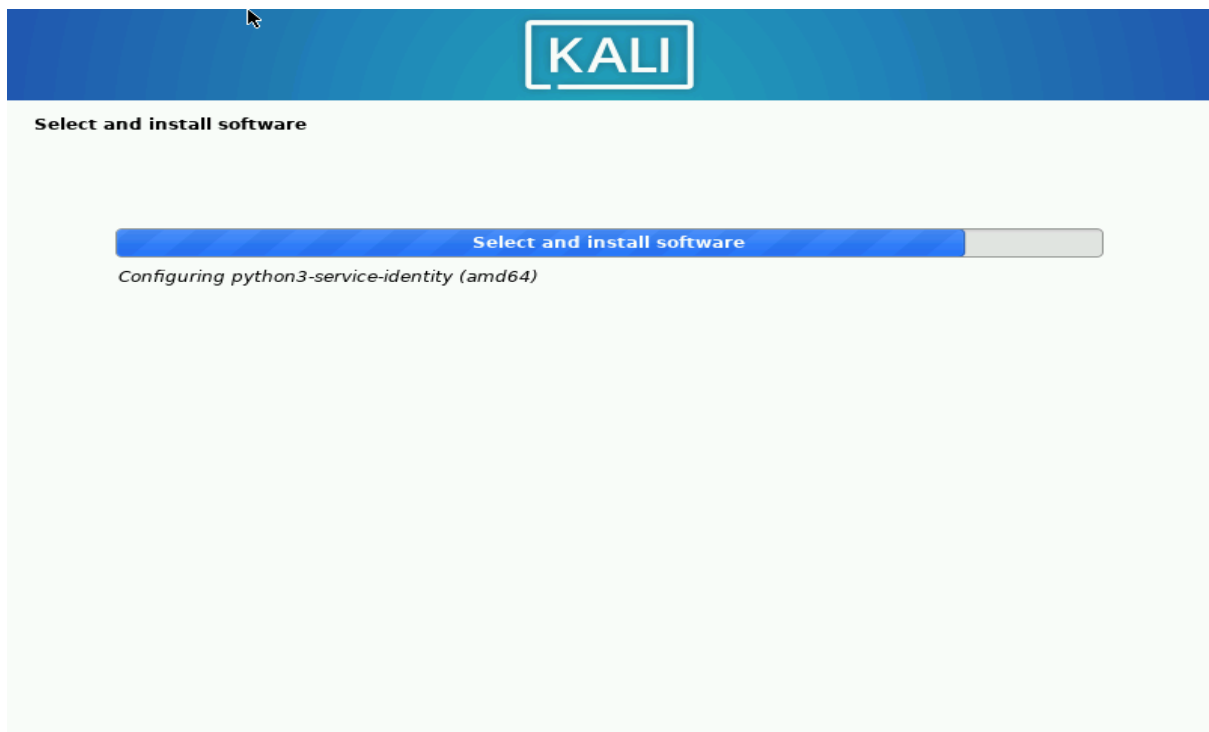
For disk partitioning, we are given various methods. I have selected the first option.



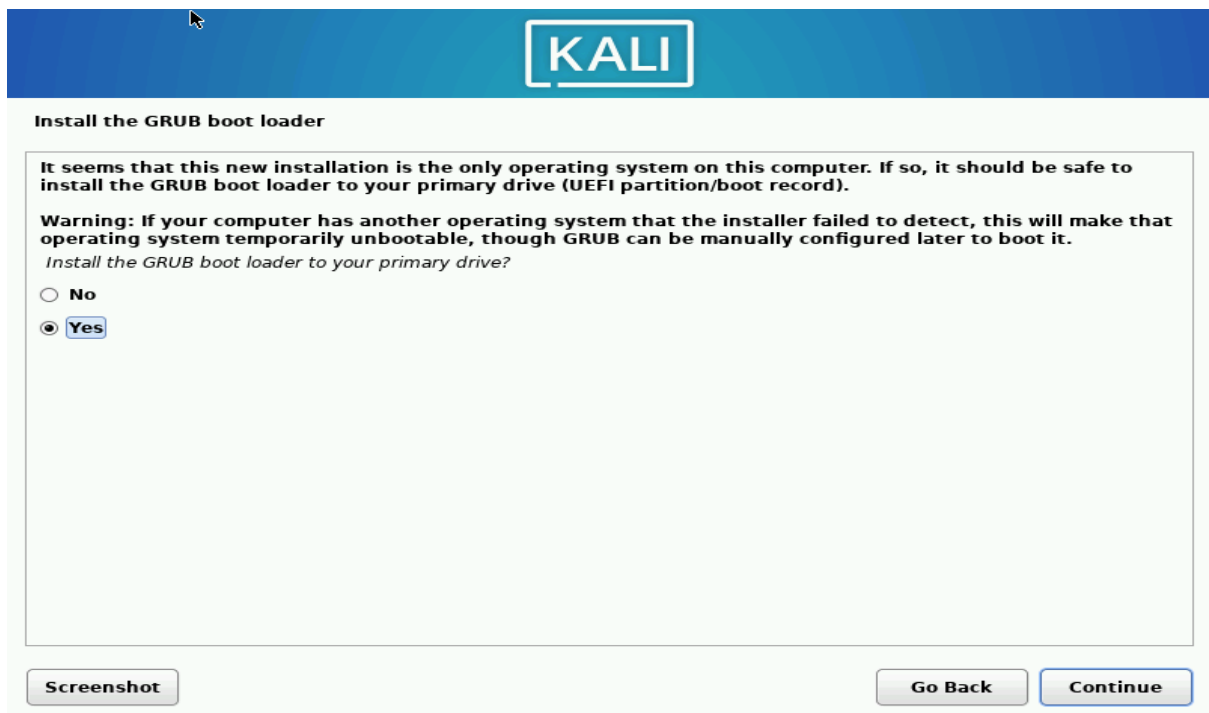
Select the disk for partitioning.



Various schemes are given for disk partitioning. Select the recommended one for new users.



After that it would perform disk partitioning and install softwares.



Install the GRUB boot loader.



Select hard disk for grub boot loader installation. Click on the available device.

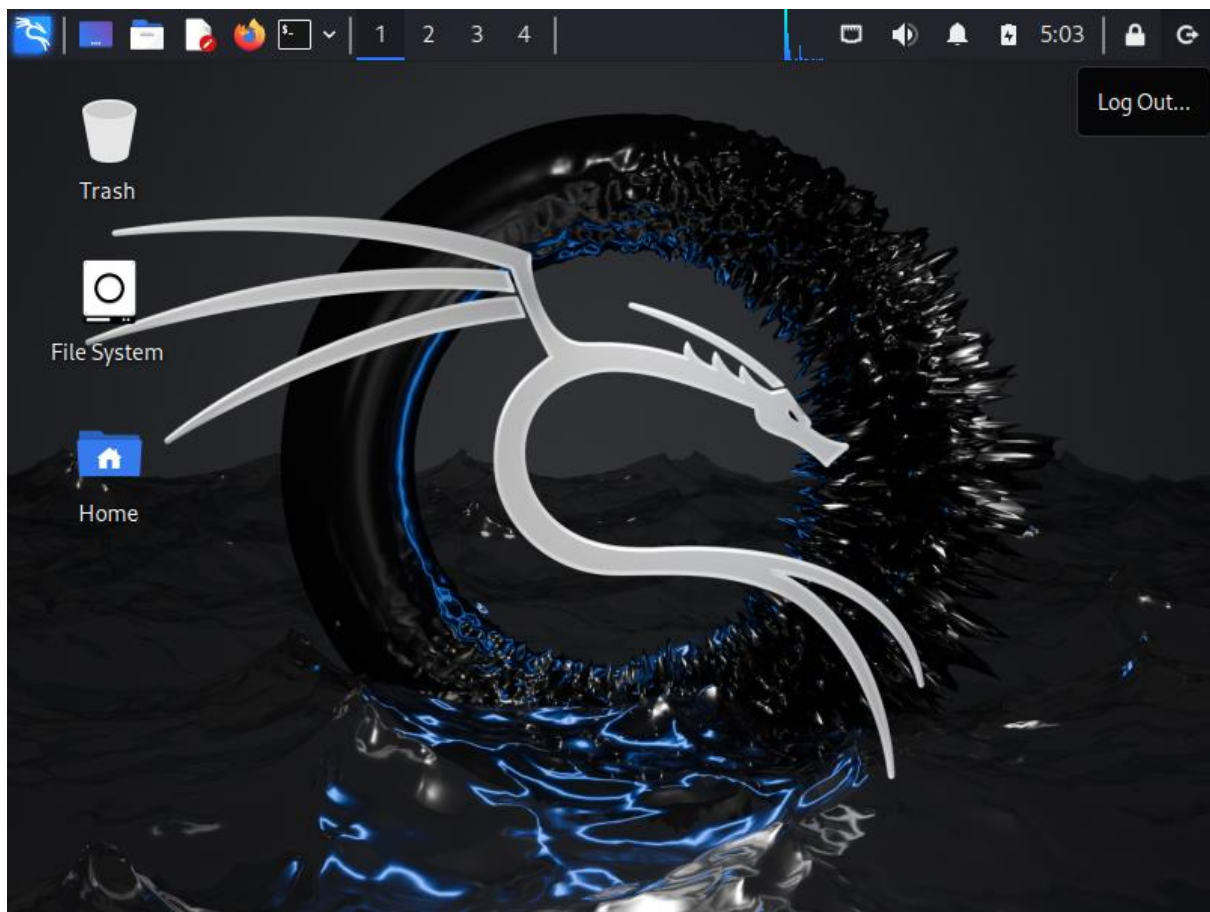
By clicking Continue, it will install the GRUB boot loader and finish the setup.



After completion of installation, click continue to reboot the machine.



After restart, lock screen is loaded. Log in with username and password provided during the installation process.



Finally, Kali Linux is running on the virtual machine after completing the setup.