

Linux Installation Manual.

Flavors used in this manual are CentOS 7 | RHEL 9

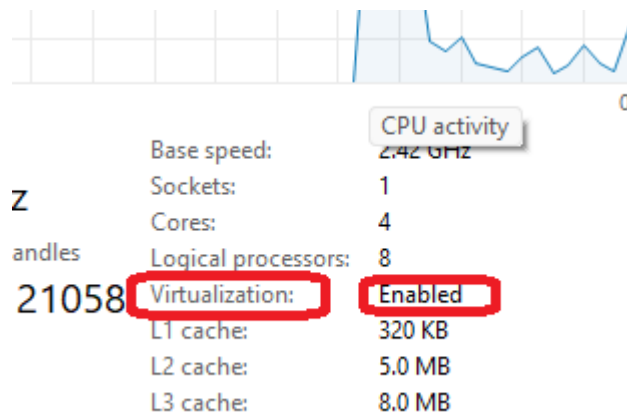
Software Requirements:

1. Oracle virtual box Version 7.0
2. Copy of [CentOS 7](#) | [RHEL 9](#) ISO DVD in a local drive

Hardware Requirements:

1. BIOS-level hardware virtualization support.
2. A 64-bit processor
3. Minimum 8GB RAM or above.

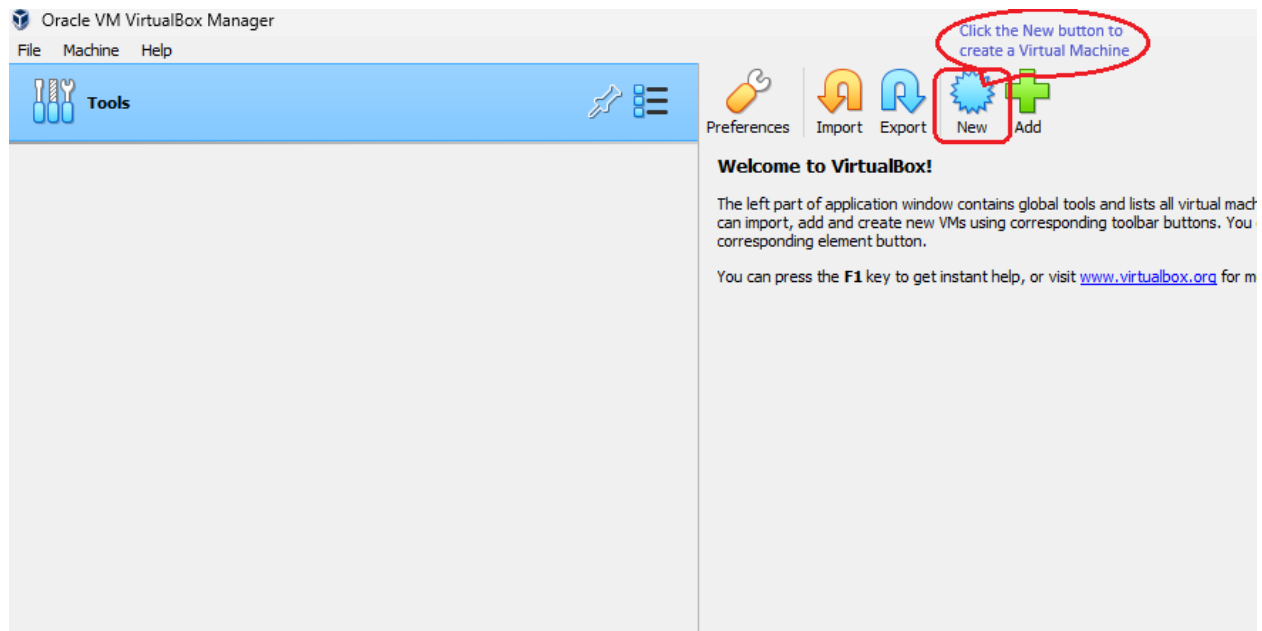
Note: Goto Task Manager → Performance tab and make sure virtualization is enabled if not enable it from your BIOS settings during boot time.



Step 1:

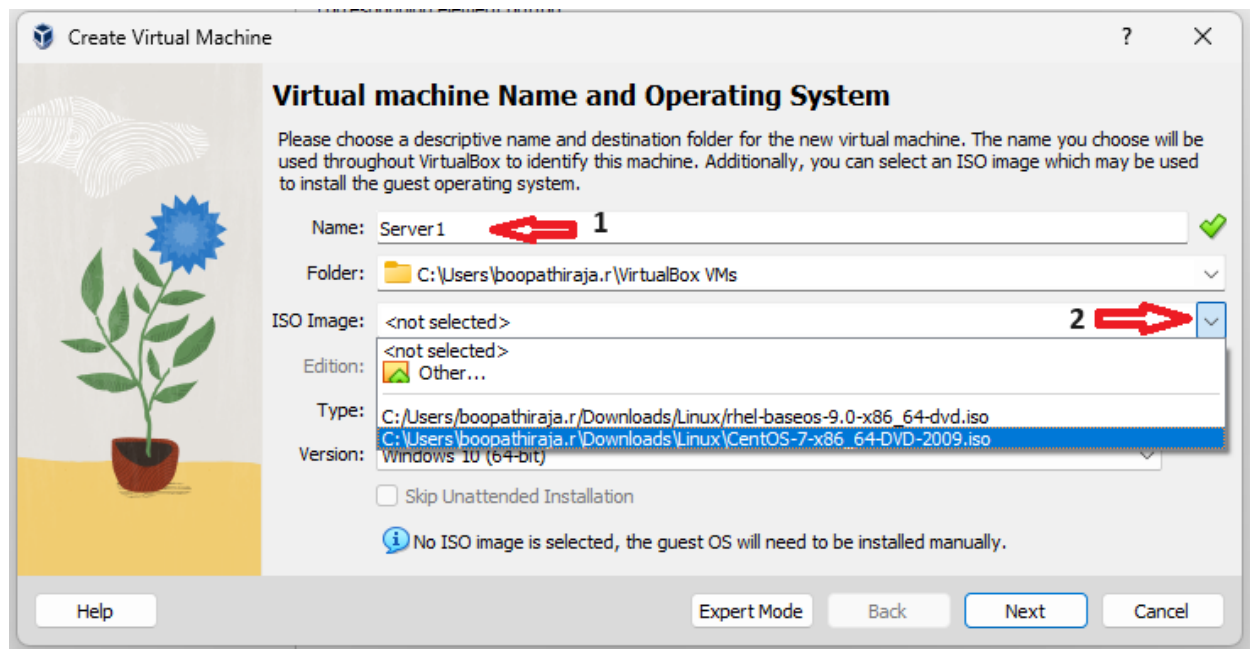
Open Oracle Virtual Box from start menu. Now you will end up on the Welcome screen.

Click the New button to create a VM.

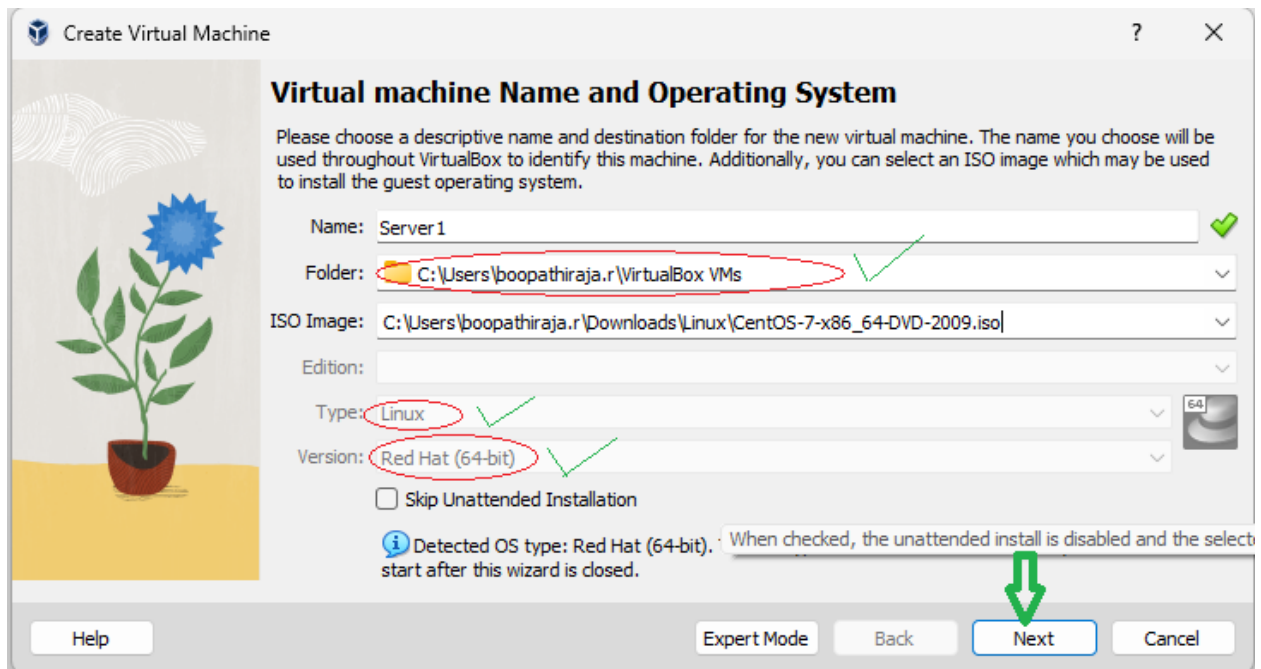


STEP 2:

1. Type Machine name from the name field
2. Goto ISO Image field choose the ISO image from your local drive from the drop-down list or select other to browse.



Note: By default, the folder field shows value = “C:\Users\<username>\VirtualBox VMs”. Make sure your Type: Linux and Version: Red Hat (64 bit). If you do not see the 64-bit option in the version, then your virtualization is not enabled in the BIOS (Refer Hardware requirements). Click Next to continue.



STEP 3:

Skip the “Unattended Guest OS Install Setup” pop-up window. Keep the values unchanged for all the fields and options. Click Next to continue.

STEP 4:

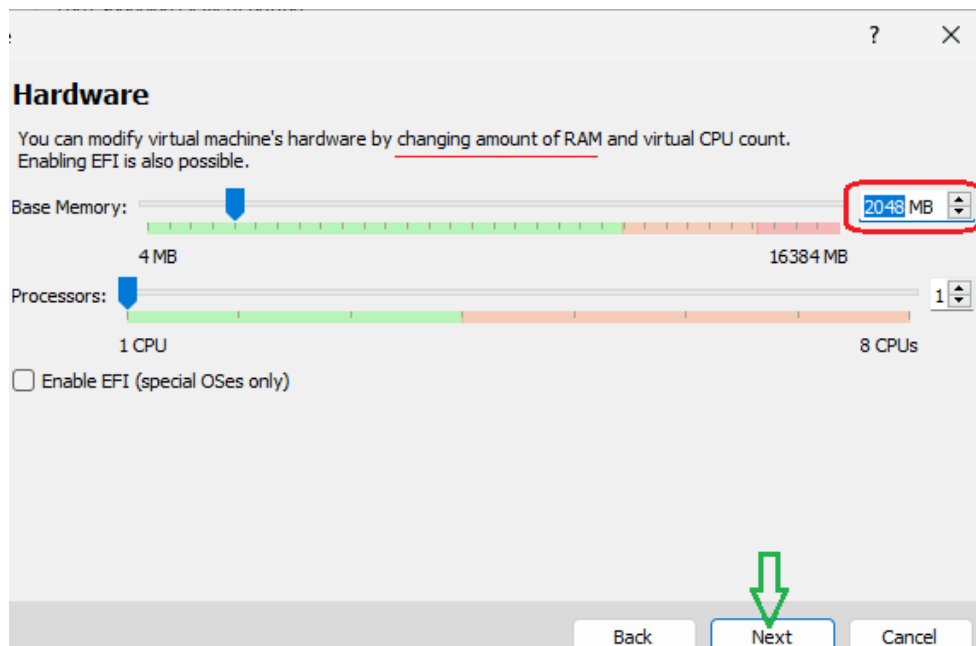
a. In this Hardware pop-up window edit the RAM size directly as mentioned below.

If your physical RAM is 16GB, then edit the value as “2048 MB”

If your physical RAM is 8GB, then edit the value as “1024 MB”

If your physical RAM is 4GB, then edit the value as “1024 MB” (Not recommended)

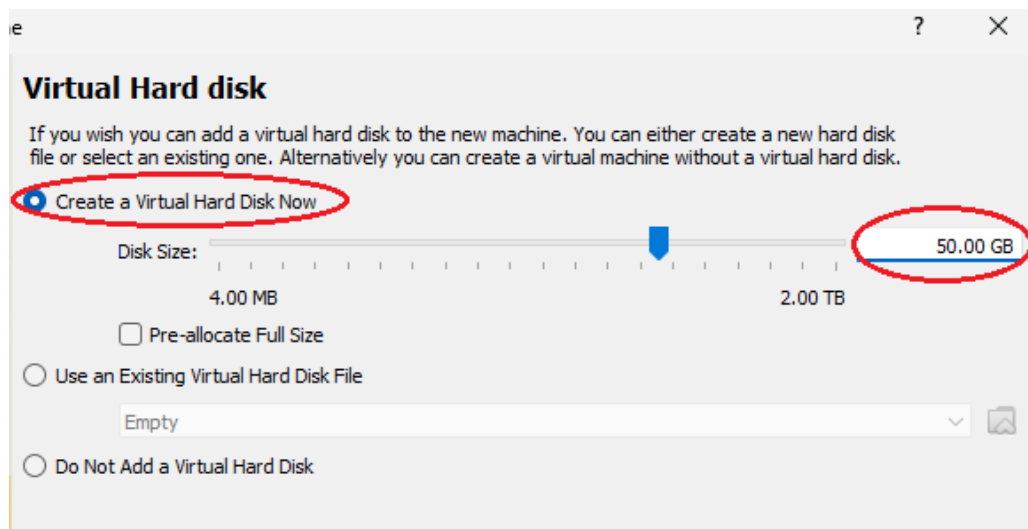
b. Your Processor count remains unchanged.



Click Next to continue

STEP 5:

Create a virtual hard disk in this window. The default disk size would be 20.00 GB (minimal version). Since we are going to use Server with GUI, we can have any value equal to or above “50.00GB”. Click Next to continue.



STEP 6:

In the Summary window validate STEP 1 to STEP 5 and click on Finish button to complete the configuration changes.

Summary

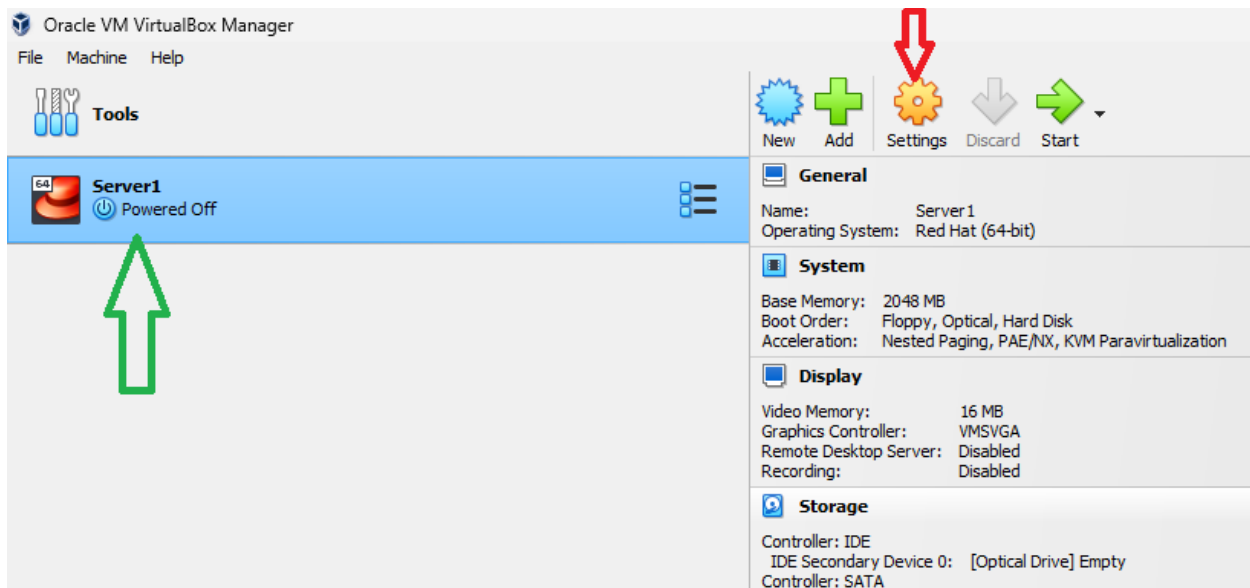
The following table summarizes the configuration you have chosen for the new virtual machine. When you are happy with the configuration press Finish to create the virtual machine. Alternatively you can go back and modify the configuration.

Machine Name and OS Type	
Machine Name	Server1
Machine Folder	C:\Users\boopathiraja.r\VirtualBox VMs\Server1
ISO Image	C:\Users\boopathiraja.r\Downloads\Linux\CentOS-7-x86_64-DVD-2009...
Guest OS Type	Red Hat (64-bit)
Skip Unattended Install	false
Unattended Install	
Username	vboxuser
Product Key	false
Hostname/Domain Name	Server1.myguest.virtualbox.org
Install in Background	false
Install Guest Additions	false
Hardware	
Base Memory	2048

Back Finish Cancel

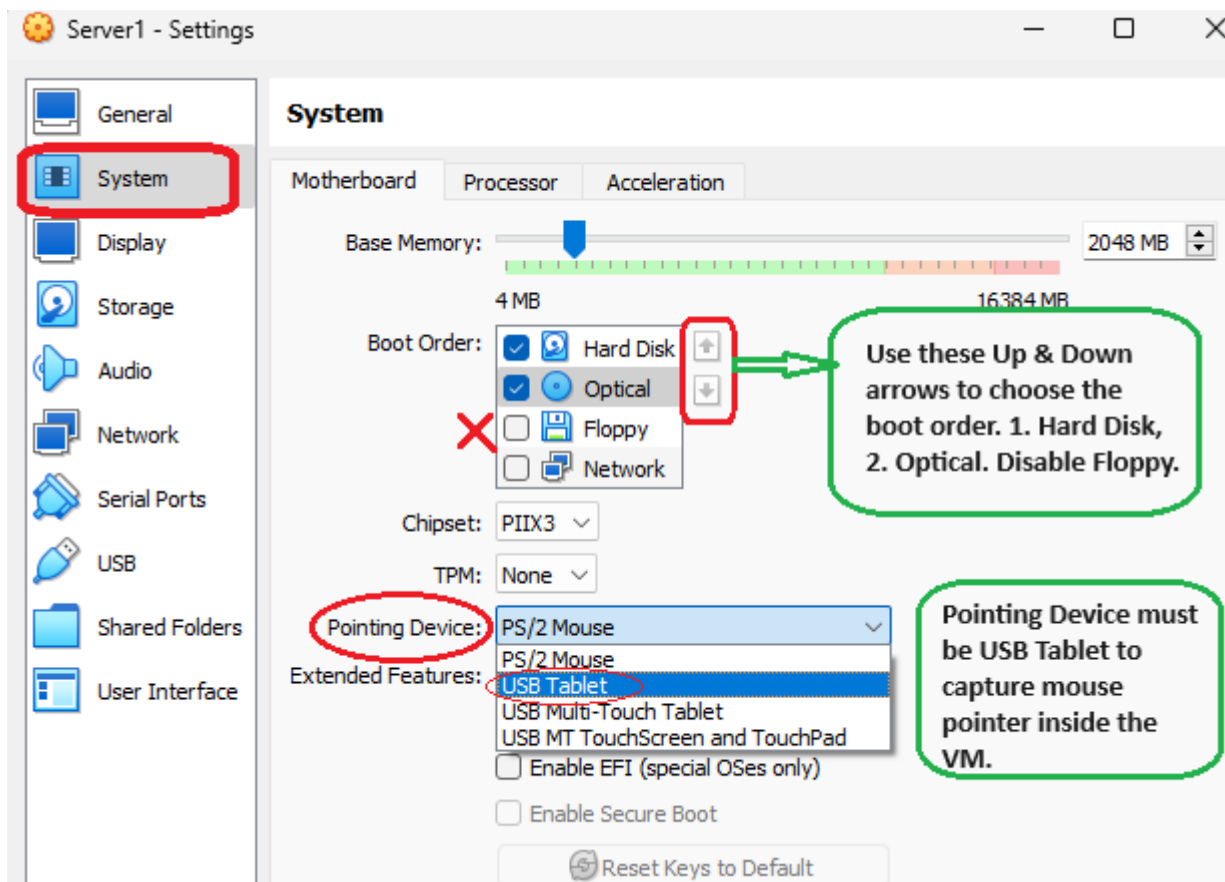
STEP 7:

Now you will see the Machine name that you have created below the Tools tab, then click on Settings from the main icons as shown in the picture below.



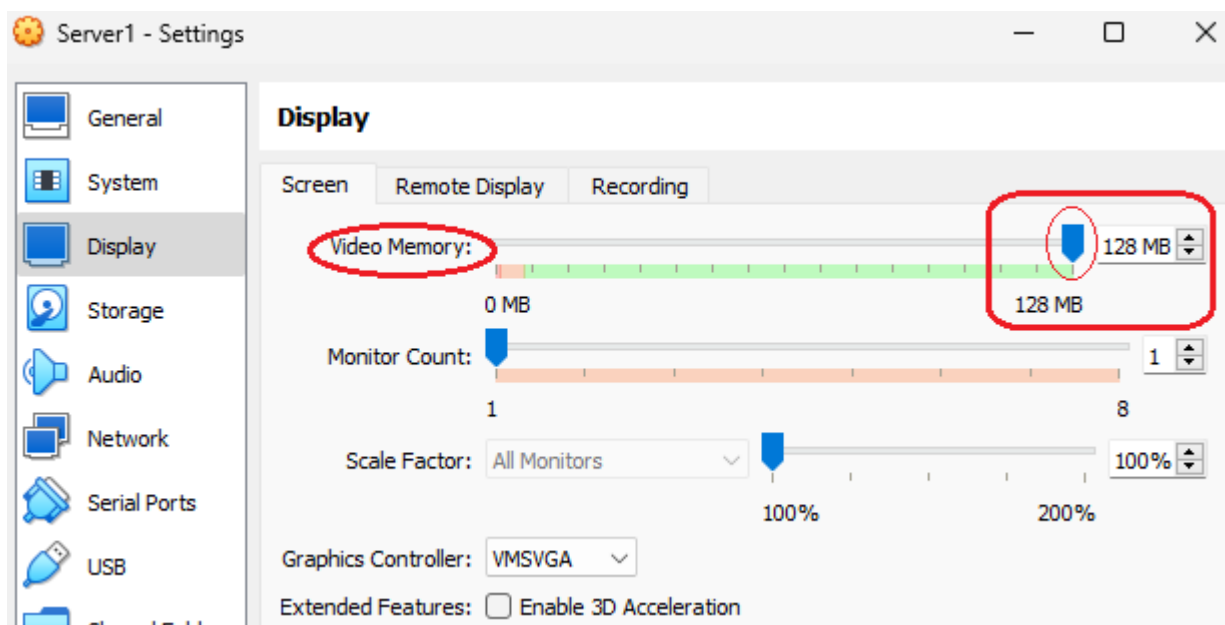
Settings Menu will help us to configure options like Boot menu, Network, Display, etc.,

7.1 Choose “**Settings → System**” tab from the left navigation panel. Configure Boot Order and Pointing Device as mentioned in the below Screenshot.



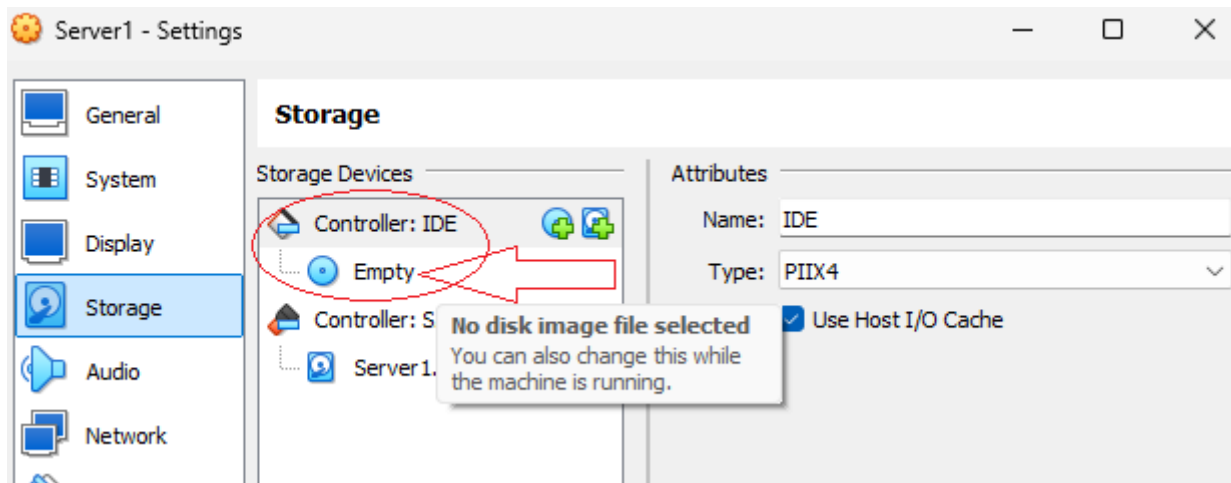
7.2 Choose “**Settings → Display**” tab from the left navigation panel.

Choose internal Screen tab then drag the Video memory pointer to max value “128 MB” or by directly editing the text field as shown in the screenshot below.

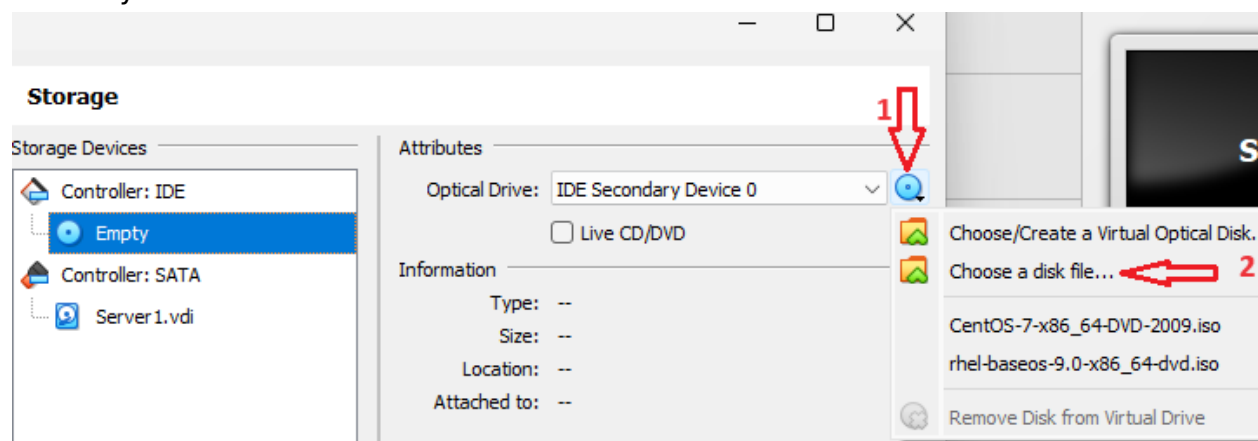


7.3 Choose “**Settings → Storage**” tab from the left navigation panel.

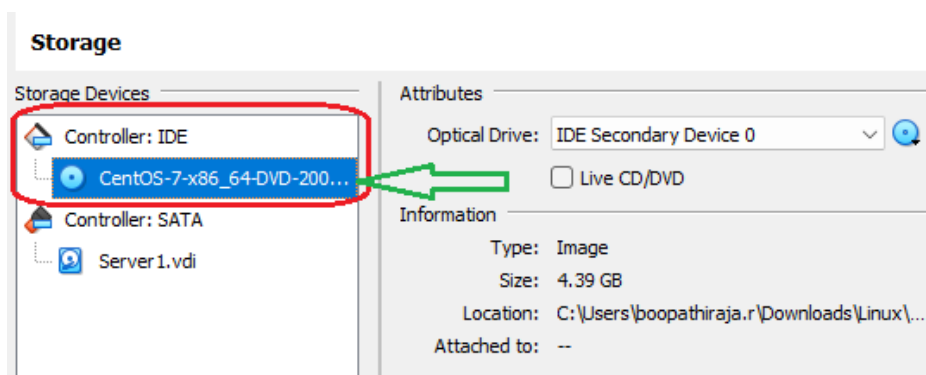
In the storage devices section, the Controller IDE has the “Empty” value instead of the optical drives name as shown in the picture below.



Click on the drive name “Empty”, to the extreme right of the window you will be seeing a blue DVD icon click on it see the drop-down menu. Select “Choose a disk file” option to browse your DVD location.



Once you have chosen the DVD location, the Controller: IDE will now have the “CentOS 7 DVD name” instead of “Empty”



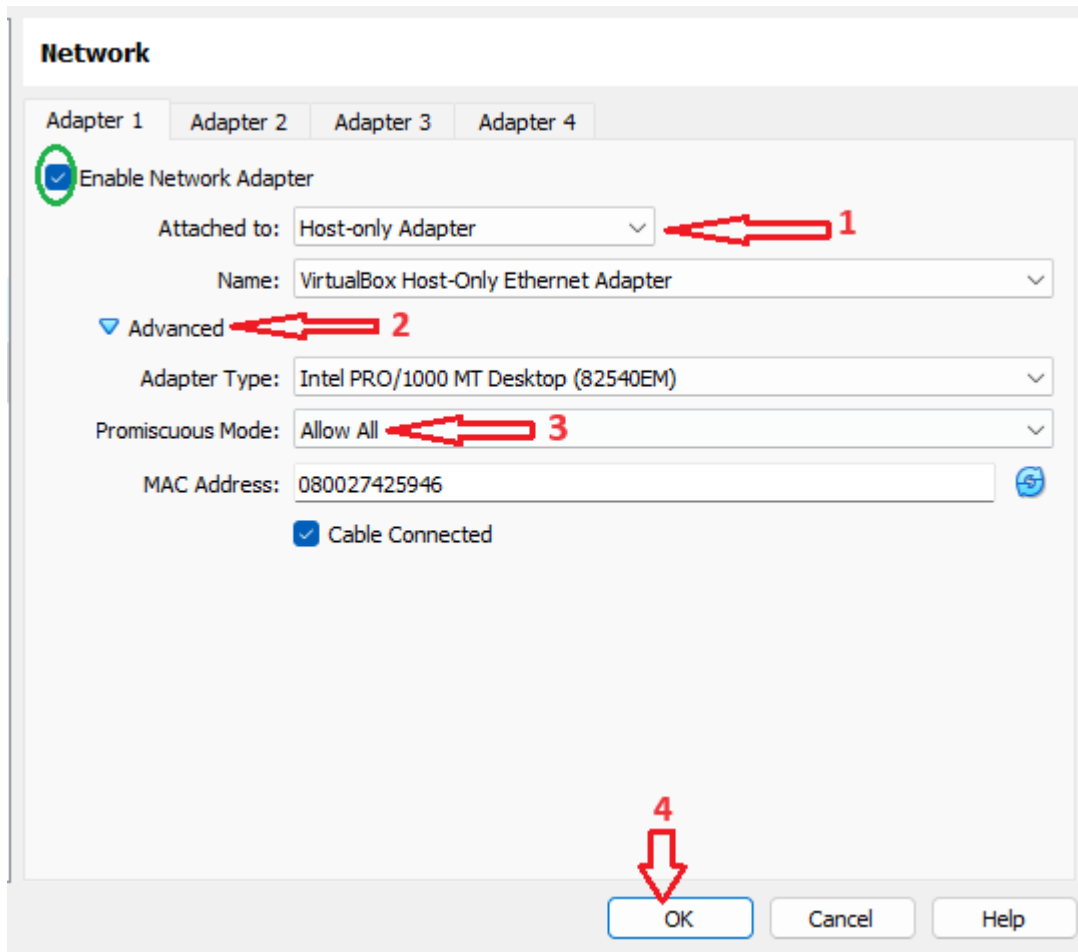
7.4 Choose “**Settings → Network**” tab from the left navigation panel.

Note: Make sure the “Enable Network Adapter” check box is **enabled** in Adapter1 tab.

Edit only the values mentioned below.

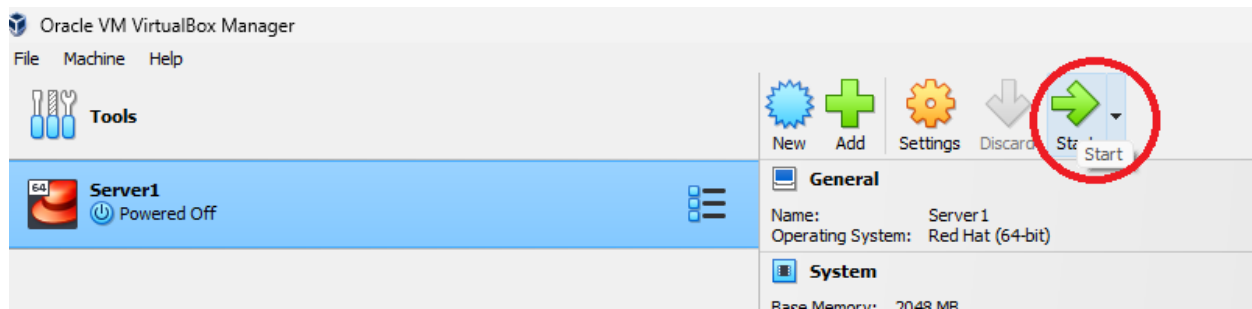
1. From the “**Attached to:**” drop-down select “**Host-only Adapter**”.
2. Select “**Advanced**” Menu to explore more options.
3. From the “**Promiscuous Mode:**” drop-down select “**Allow All**”.
4. Finally click on OK button to close the Settings window.

(Refer the screenshot mentioned below).



STEP 8:

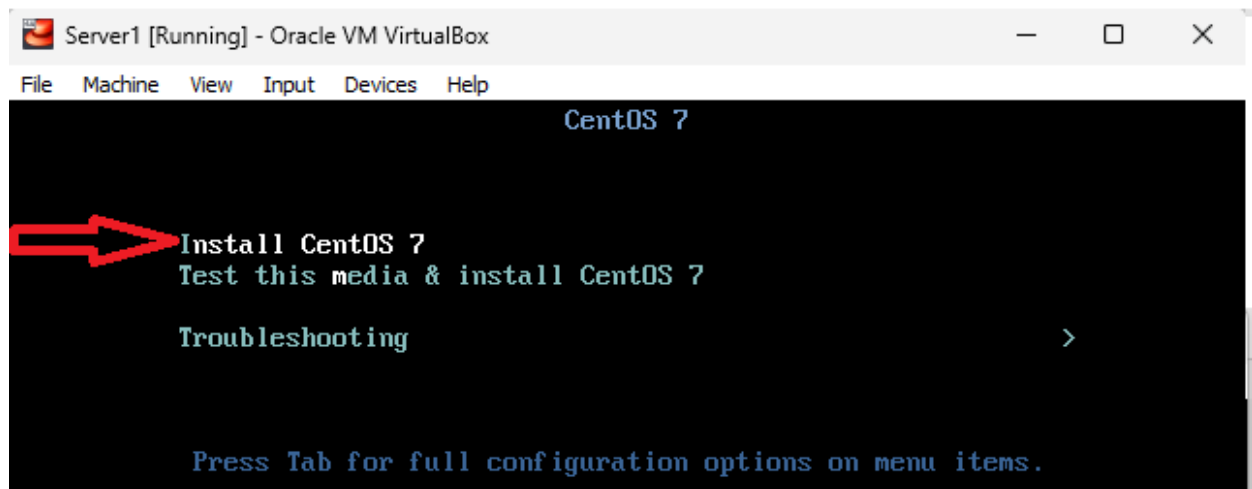
Back to the welcome screen click on “Start” button. Make sure your VM is selected.



STEP 9:

Now your machine is booted with the Optical Drive (DVD). Quickly navigate to the Virtual Machine and use UP or DOWN arrow keys to disturb the default option, then select “Install CentOS 7”.

Note: Mouse pointer will not work in this window and if we delay giving input default option (Test this media & install CentOS 7) which will take more than the usual installation time.



STEP 10:

In **WELCOME TO CENTOS 7 window** make sure English is chosen on the left side. The right-side subcategory choose English with any country name (US, UK, India, etc.,) and click on “**Continue**”.



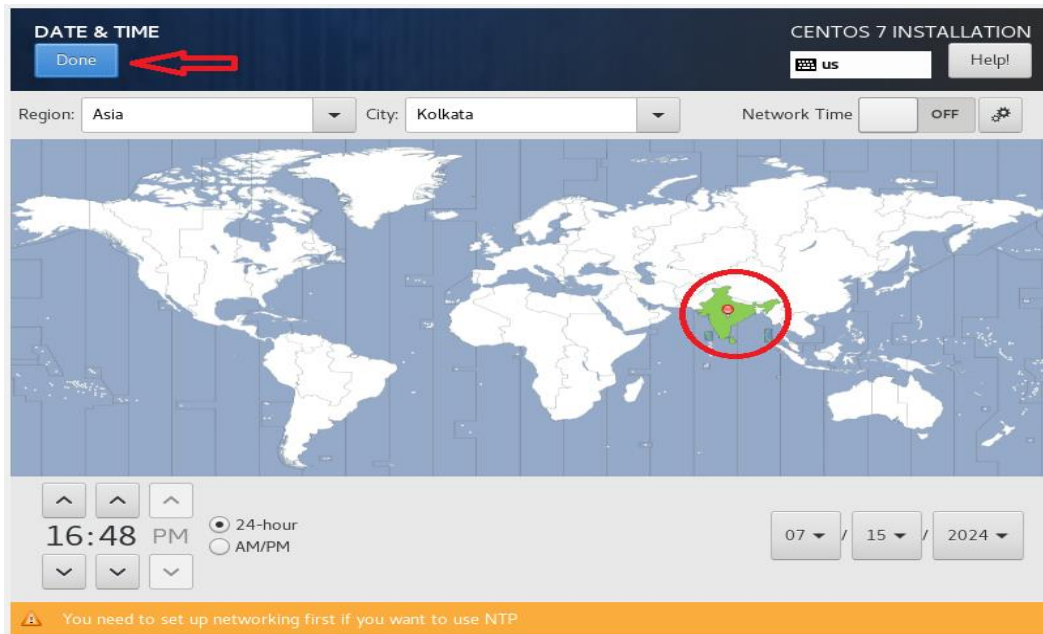
STEP 11:

INSTALLATION SUMMARY

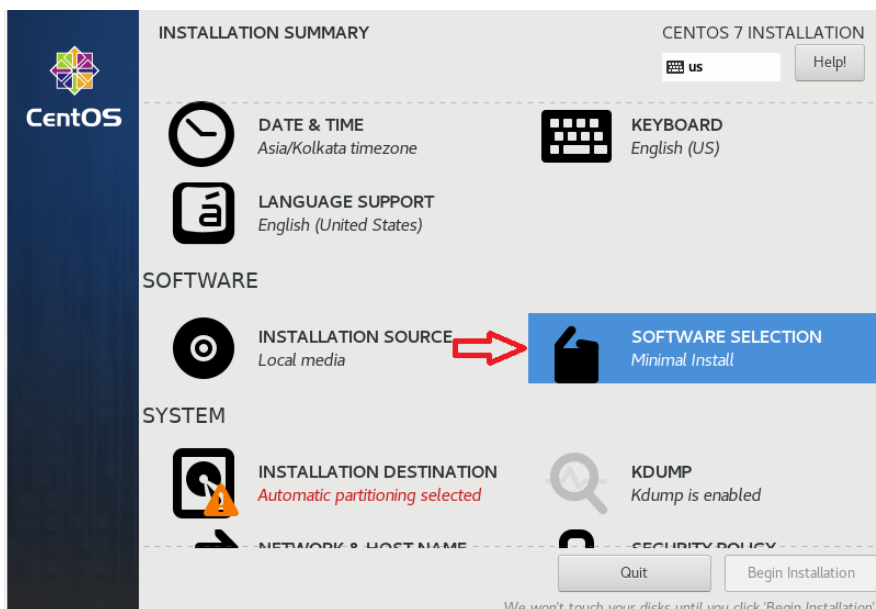
This is where we configure system settings. Let's follow the instructions mentioned in the picture below.



11.1 Date & Time: point your selection to your current Geo location. In this example I have selected India. Click on Done to get back to summary window.



11.2 Software Selection:



Choose “Server with GUI” from the left side main menu. Packages are not required now, so do not select any packages on the right-side panel. Click Done.

SOFTWARE SELECTION

CENTOS 7 INSTALLATION

Done

us

Help!

Base Environment

☐ Minimal Install
Basic functionality.
 ☐ Compute Node
Installation for performing computation and processing.
 ☐ Infrastructure Server
Server for operating network infrastructure services.
 ☐ File and Print Server
File, print, and storage server for enterprises.
 ☐ Basic Web Server
Server for serving static and dynamic internet content.
 ☐ Virtualization Host
Minimal virtualization host.
 ☒ **Server with GUI**
Server for operating network infrastructure services, with a GUI.
 ☐ GNOME Desktop
GNOME is a highly intuitive and user friendly desktop environment.
 ☐ KDE Plasma Workspaces
The KDE Plasma Workspaces, a highly-configurable graphical user interface which includes a panel, desktop, system icons and desktop widgets, and many powerful KDE applications.

Add-Ons for Selected Environment

☒ **Backup Server**
Software to centralize your infrastructure's backups.
 ☒ **DNS Name Server**
This package group allows you to run a DNS name server (BIND) on the system.
 ☒ **E-mail Server**
Allows the system to act as a SMTP and/or IMAP e-mail server.
 ☒ **FTP Server**
Allows the system to act as an FTP server.
 ☒ **File and Storage Server**
CIFS, SMB, NFS, iSCSI, iSER, and iSNS network storage server.
 ☒ **Hardware Monitoring Utilities**
A set of tools to monitor server hardware.
 ☒ **High Availability**
Infrastructure for highly available services and/or shared storage.
 ☒ **Identity Management Server**
Centralized management of users, servers and authentication policies.
 ☒ **Infiniband Support**
Software designed for supporting clustering and grid

11.3 Installation Destination: Uncheck the selected hard drive and select it back, then click on Done. Keep all other options unchanged.

CentOS

INSTALLATION SUMMARY

CENTOS 7 INSTALLATION

us

Help!

LANGUAGE SUPPORT

English (United States)

SOFTWARE

INSTALLATION SOURCE

Local media

SOFTWARE SELECTION

Server with GUI

SYSTEM

INSTALLATION DESTINATION

Automatic partitioning selected

KDUMP

Kdump is enabled

NETWORK & HOST NAME

Not connected

SECURITY POLICY

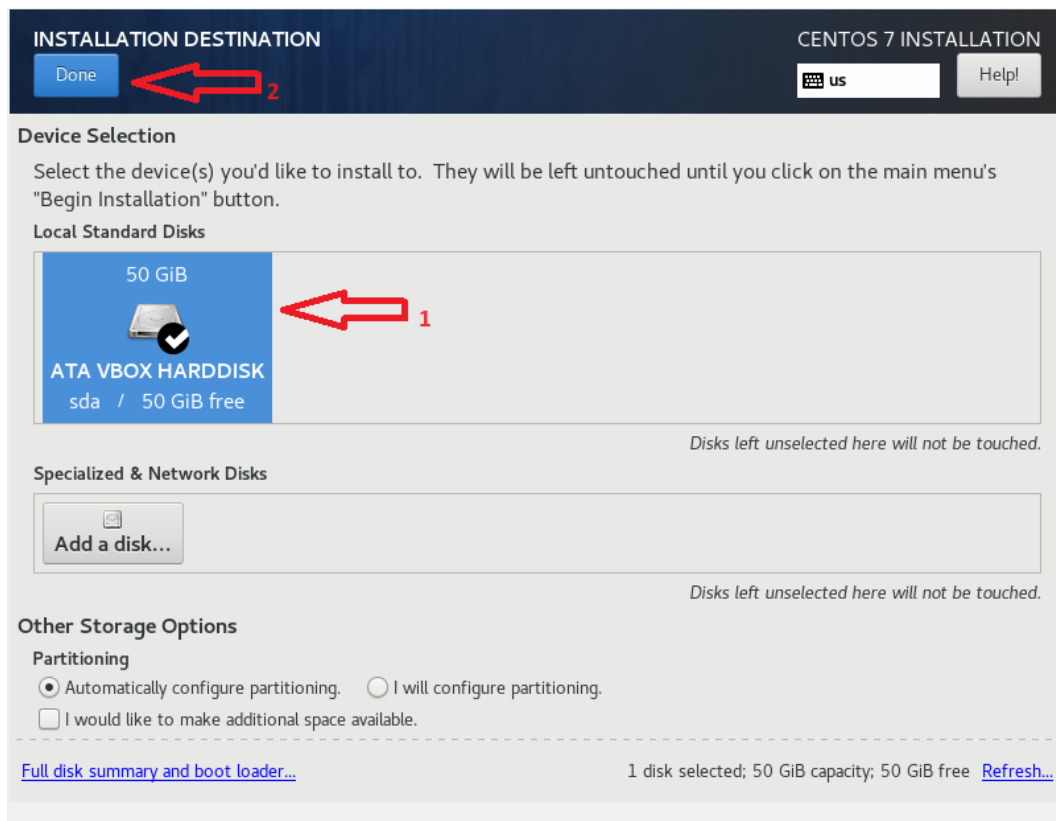
No content found

Quit

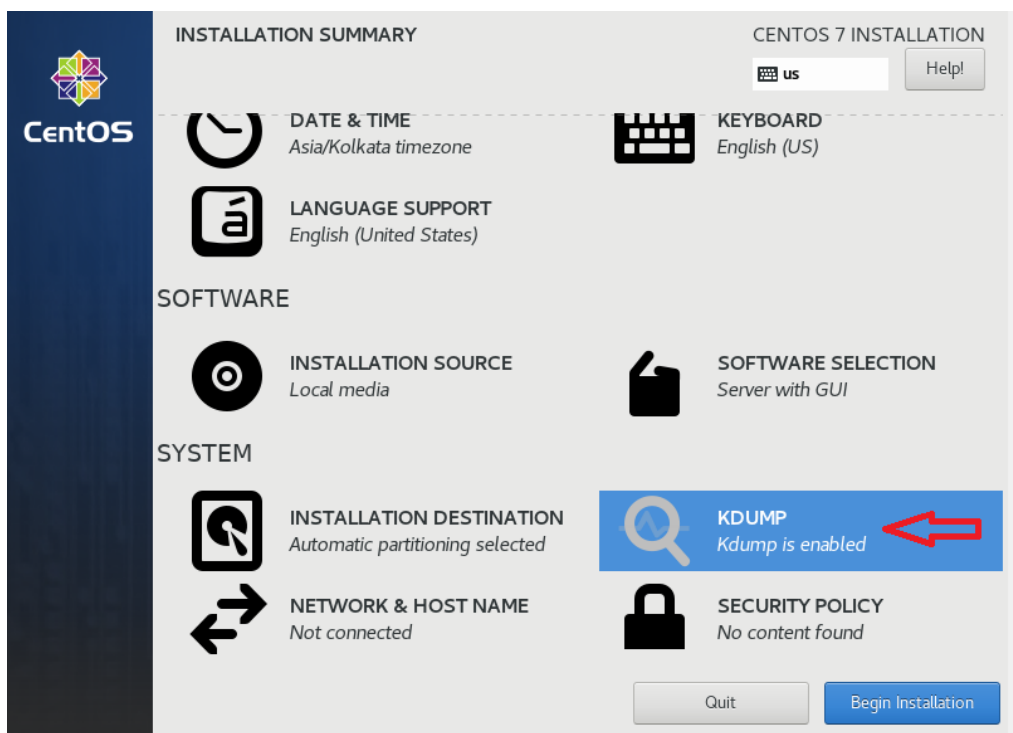
Begin Installation

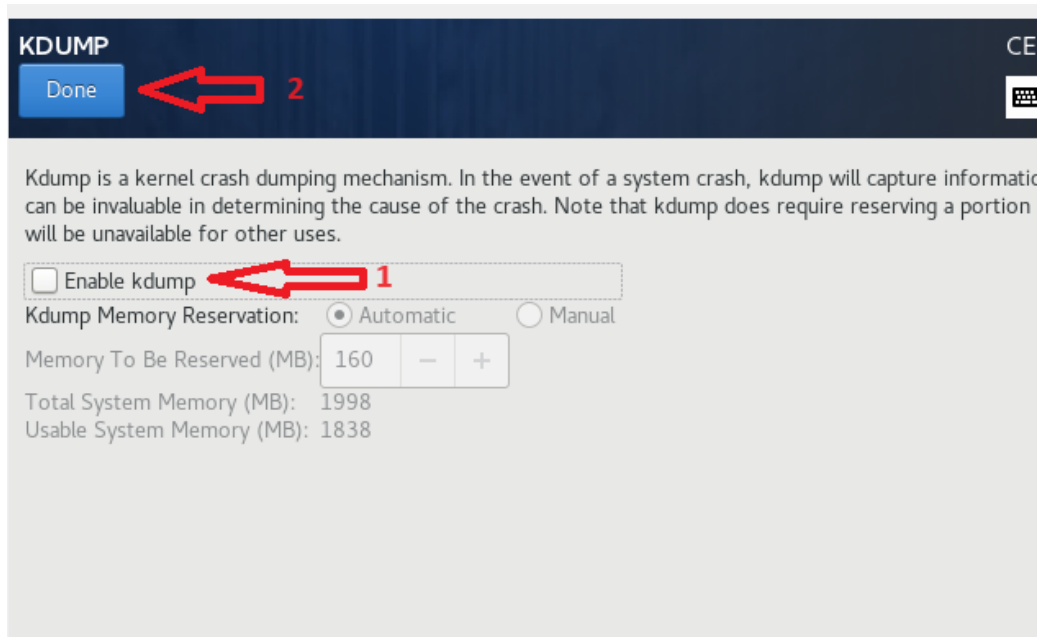
We won't touch your disks until you click 'Begin Installation'.

Please complete items marked with this icon before continuing to the next step.

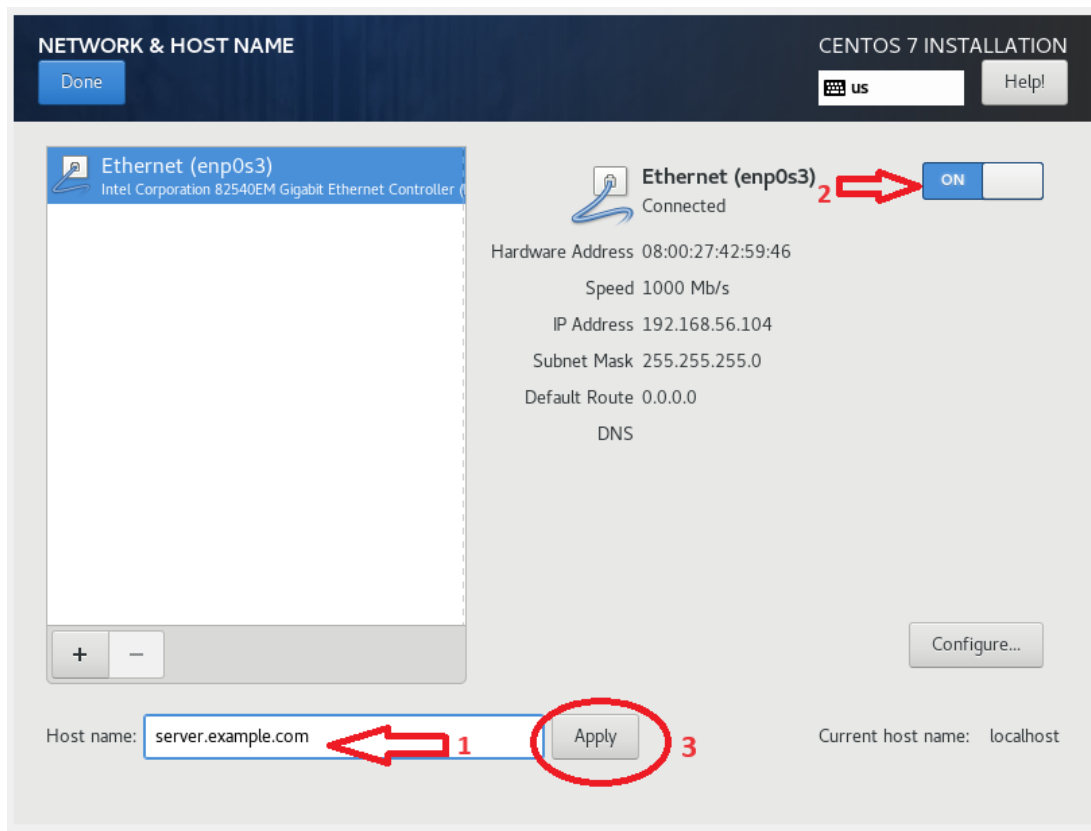


11.4 KDUMP: Crash dumping mechanism is not required for a testing server, so we can **disable** KDUMP.





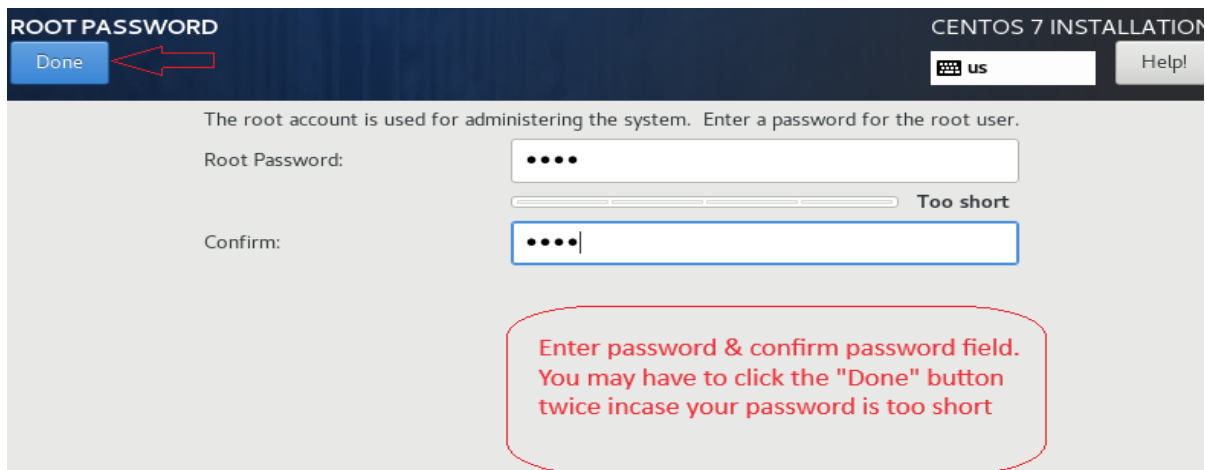
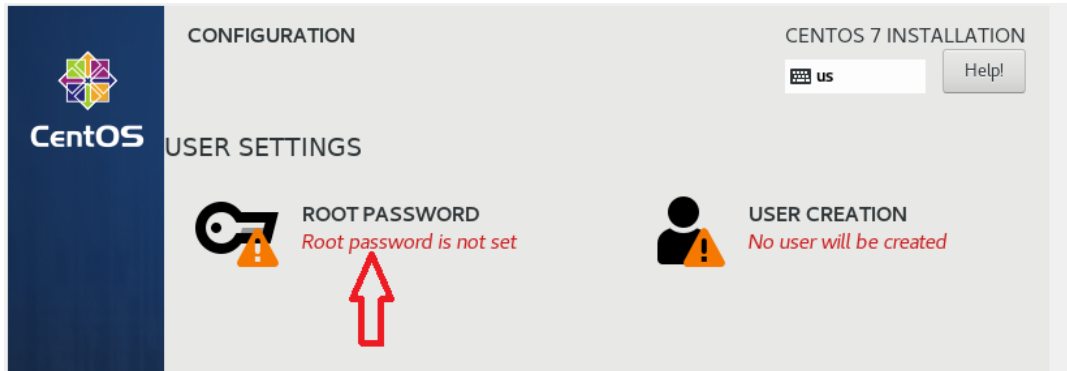
11.5 Network & Hostname: Here we can enable Ethernet Adapter and enter the hostname in this format “<ServerName>.<DomainName>.com”. Example: “server.example.com”. Make sure the same domain name is used for every VM you are creating for a well-connected network. Click Done.



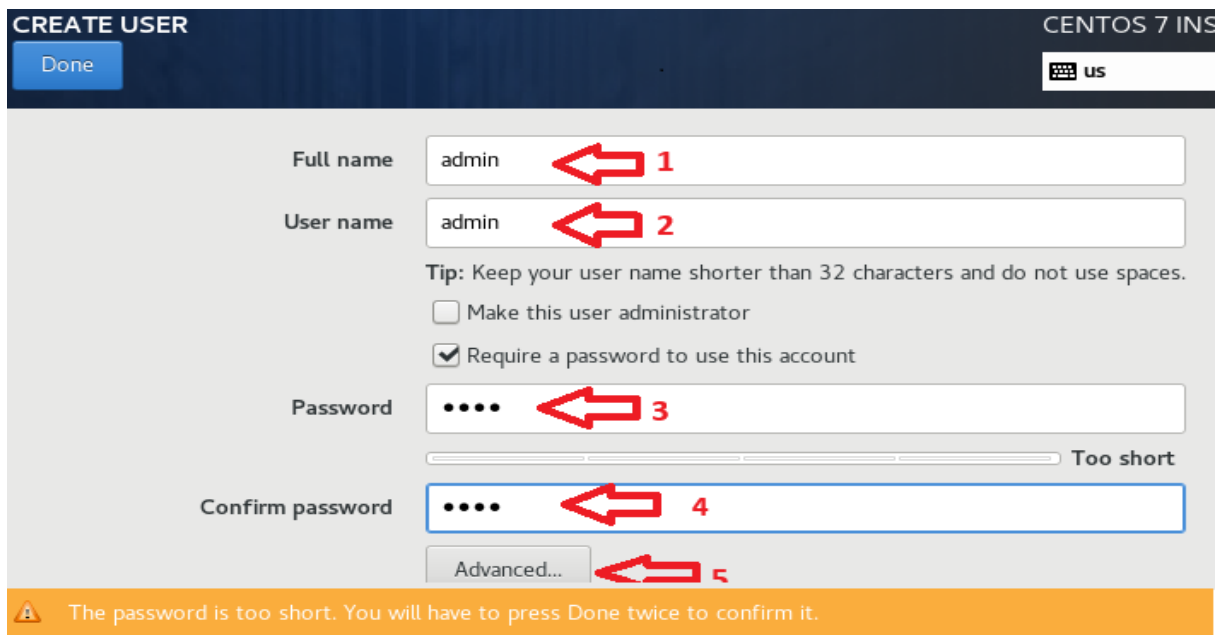
Click on **Begin Installation** button to move from installation summary to User settings.

STEP 12: User Settings

12.1 Root Password



12.2 USER Creation : Select User Creation and follow the steps.



Click on **Advanced** button to enter group membership value as “wheel”.

ADVANCED USER CONFIGURATION

Home directory:

User and Group IDs

☐ Specify a user ID manually: ☐ Specify a group ID manually: ☐

Group Membership

Add user to the following groups:

1

Example: wheel, my-team (1245), project-x (29935)


Tip:
You may input a comma-separated list of group names and group IDs here. Groups that do not already exist will be created; specify their GID in parentheses.


2

12.3 Reboot: Wait until packages are installed and Reboot button appears.

CONFIGURATION **CENTOS 7 INSTALLATION**

USER SETTINGS

 **ROOT PASSWORD**
Root password is set

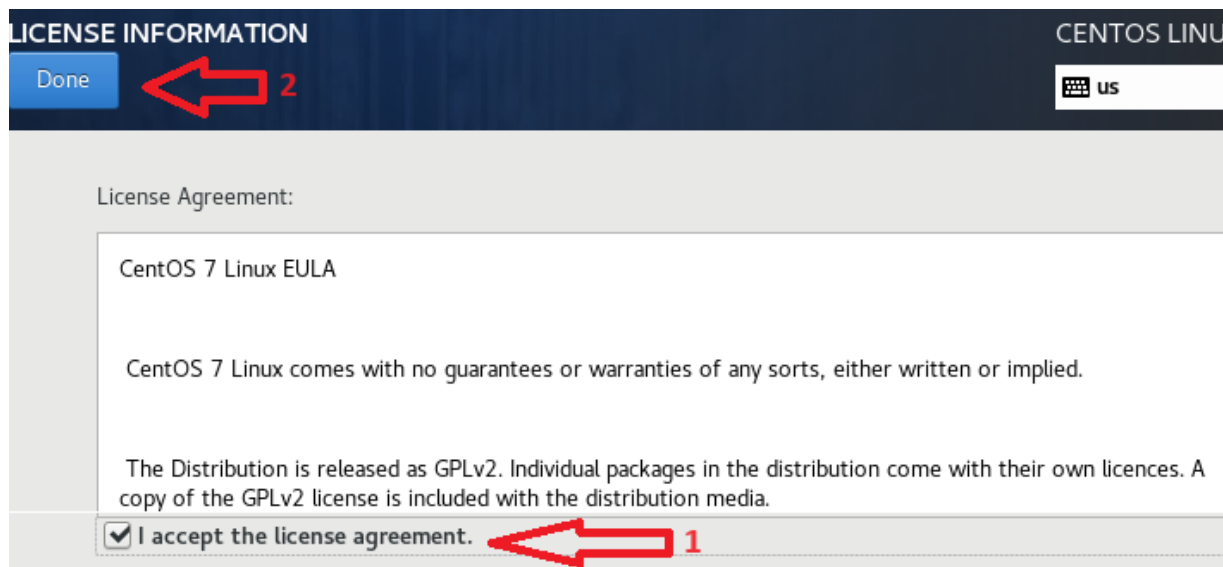
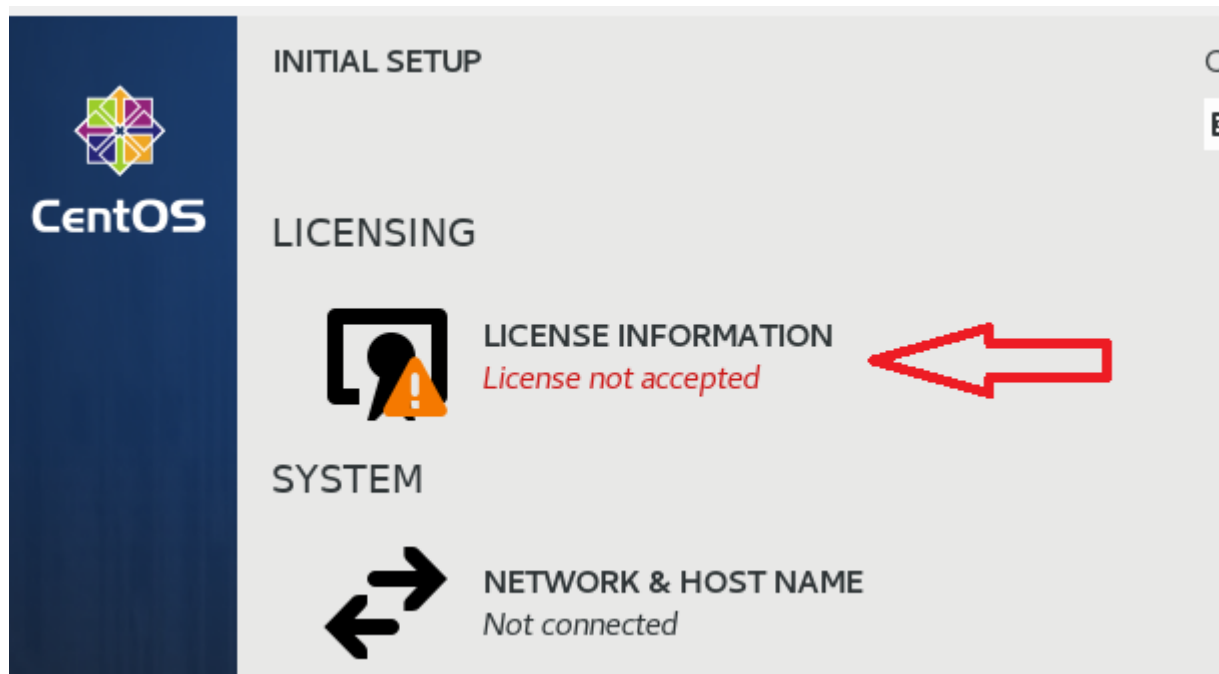
 **USER CREATION**
Administrator ad...in will be created

Complete!

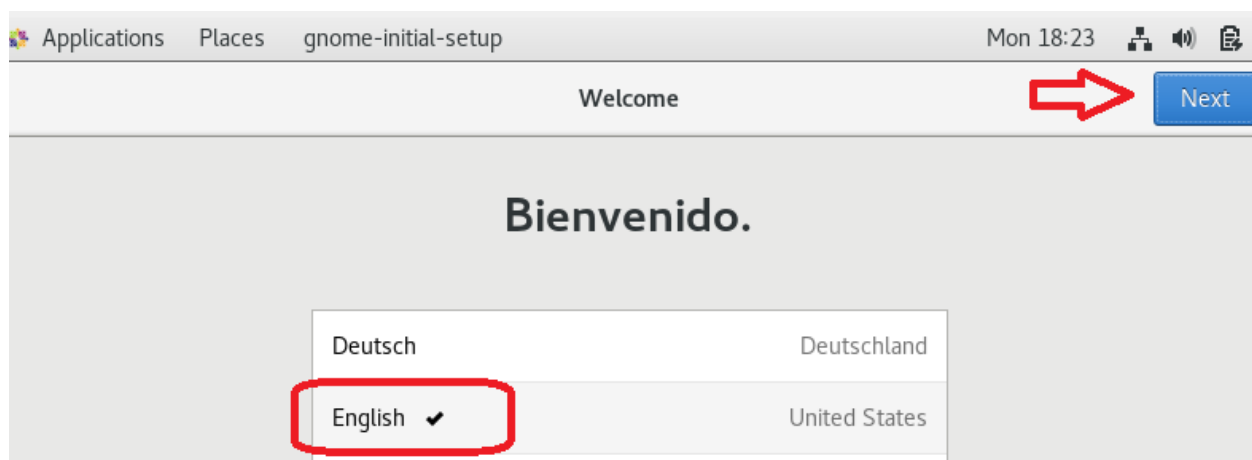
CentOS is now successfully installed and ready for you to use!
Go ahead and reboot to start using it!

STEP 13: INITIAL SETUP

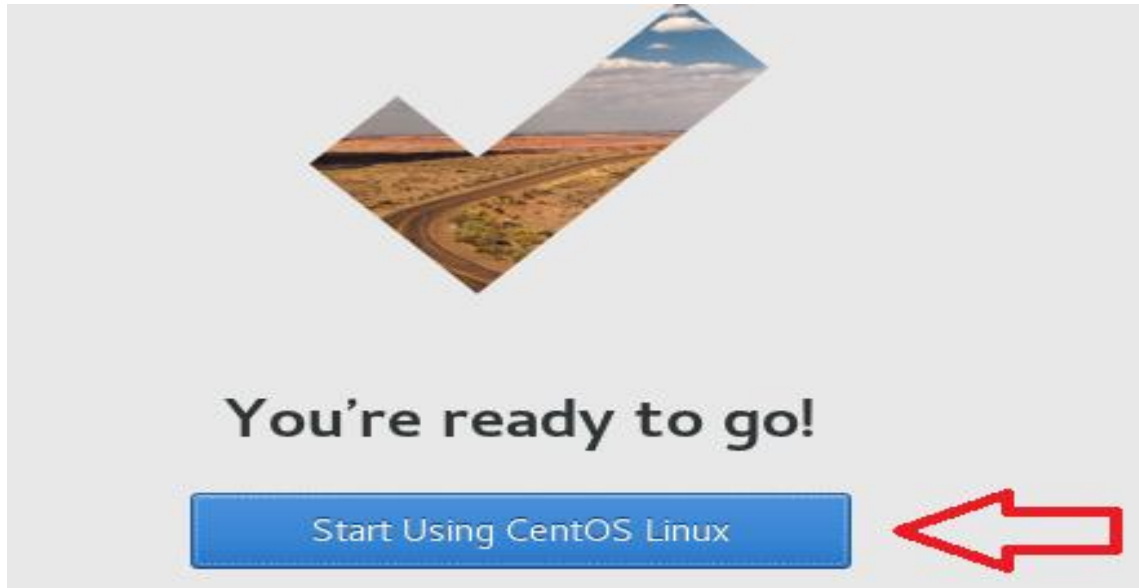
13.1 License Information: Select LICENSE INFORMATION to accept License agreements.



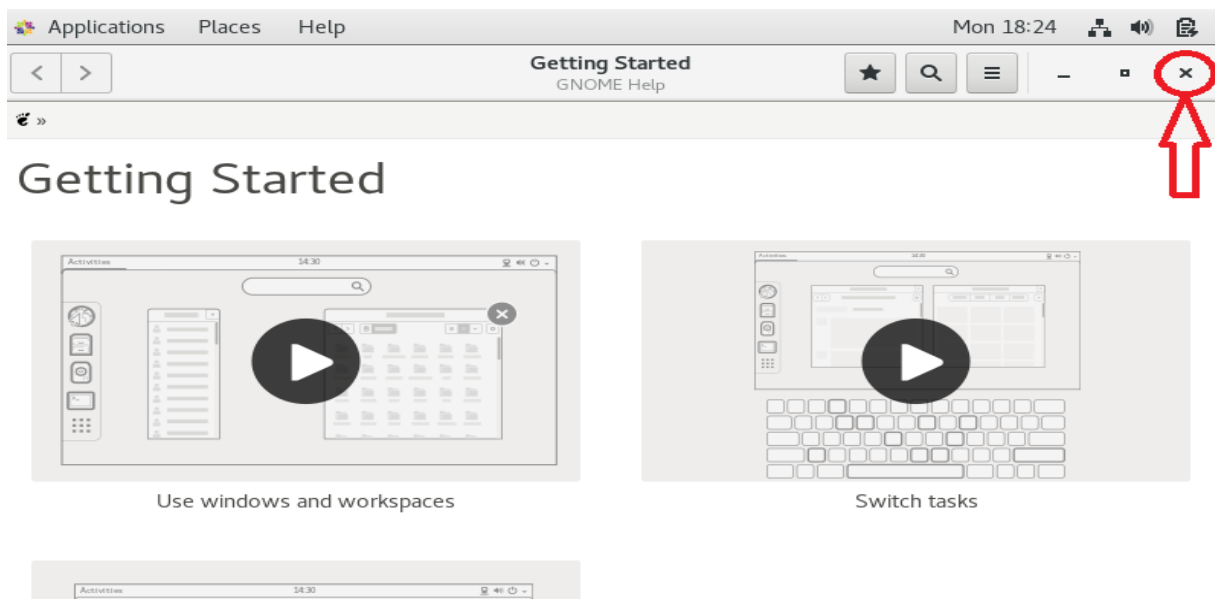
13.2 Welcome Screen: Language selection



13.3 Start Using CentOS Linux



13.4 GNOME HELP: Skip this window for now.



Now you are ready to use CentOS Linux.

HAPPY LEARNING!

*****EOT*****