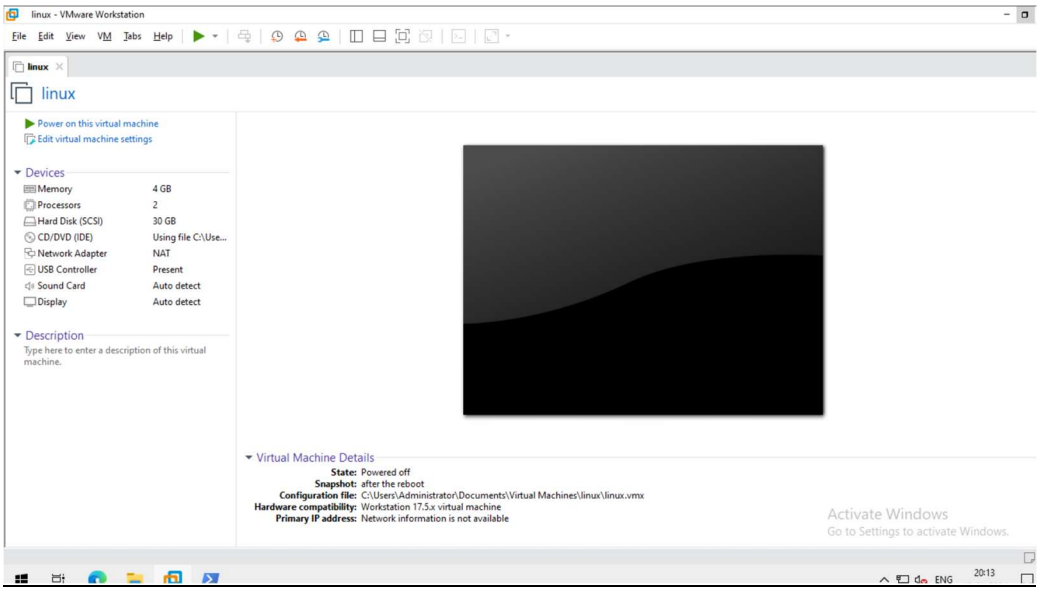
CENTOS 7 INSTALLATION AND BASIC SETUP

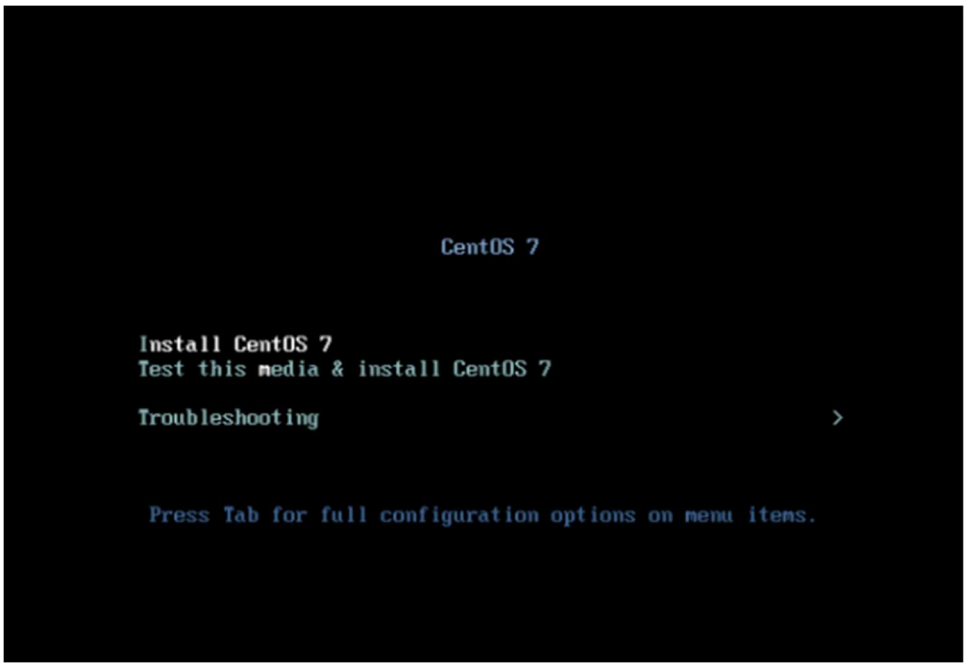
This guide provides step-by-step instructions for installing CentOS 7 on a virtual machine with specific hardware specifications, setting up essential configurations, accessing the system remotely, and performing basic administrative tasks.



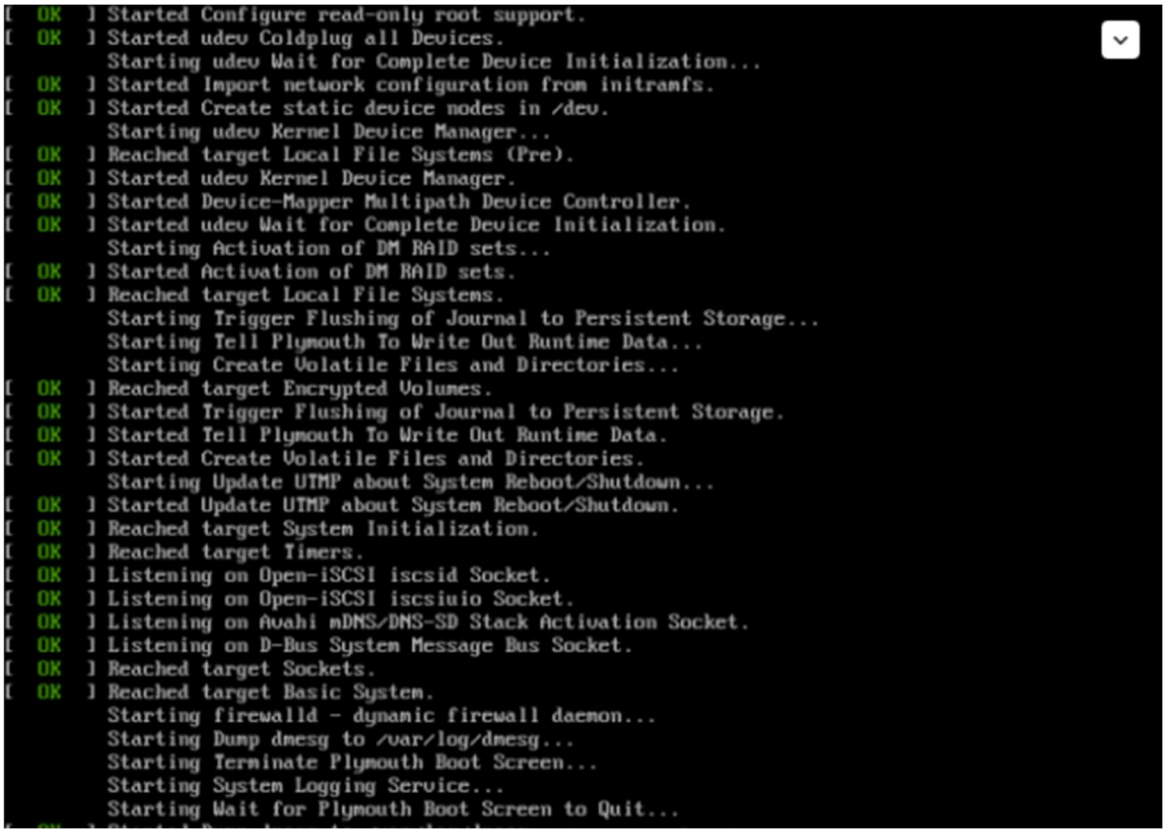
This is the step-by-step process for installing CentOS 7 on a virtual machine with specific hardware specifications: 4GB memory, 2 processors, and 30GB SCSI hard disk.

Installation

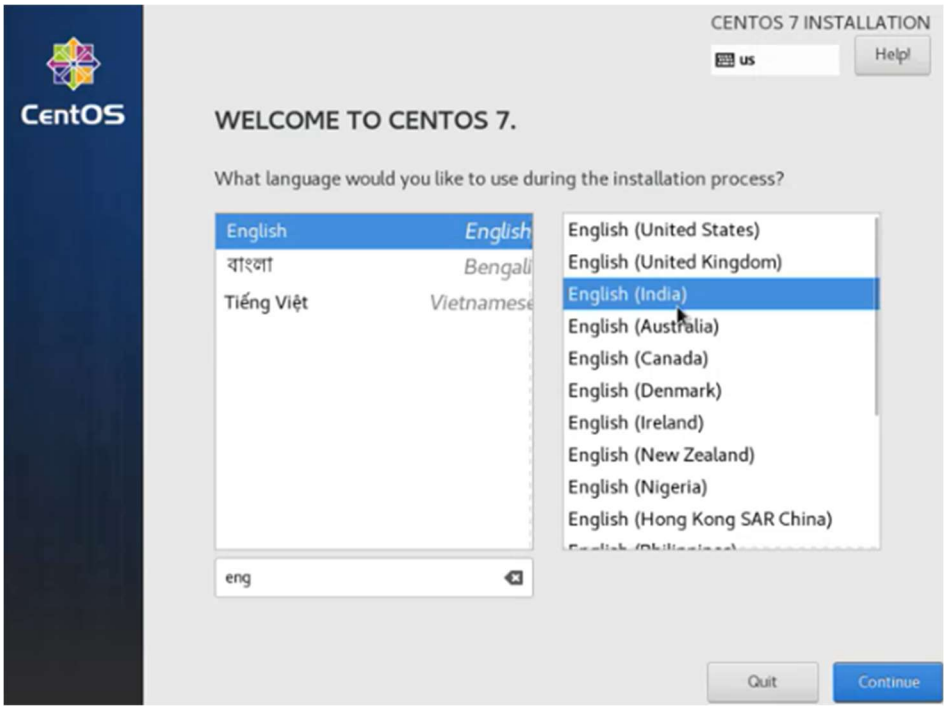
1. To begin, turn on the computer. Then, pick the bootable unit from the options. When the first CentOS 7 prompt appears, select "Install CentOS 7" by pressing the [Enter] key.



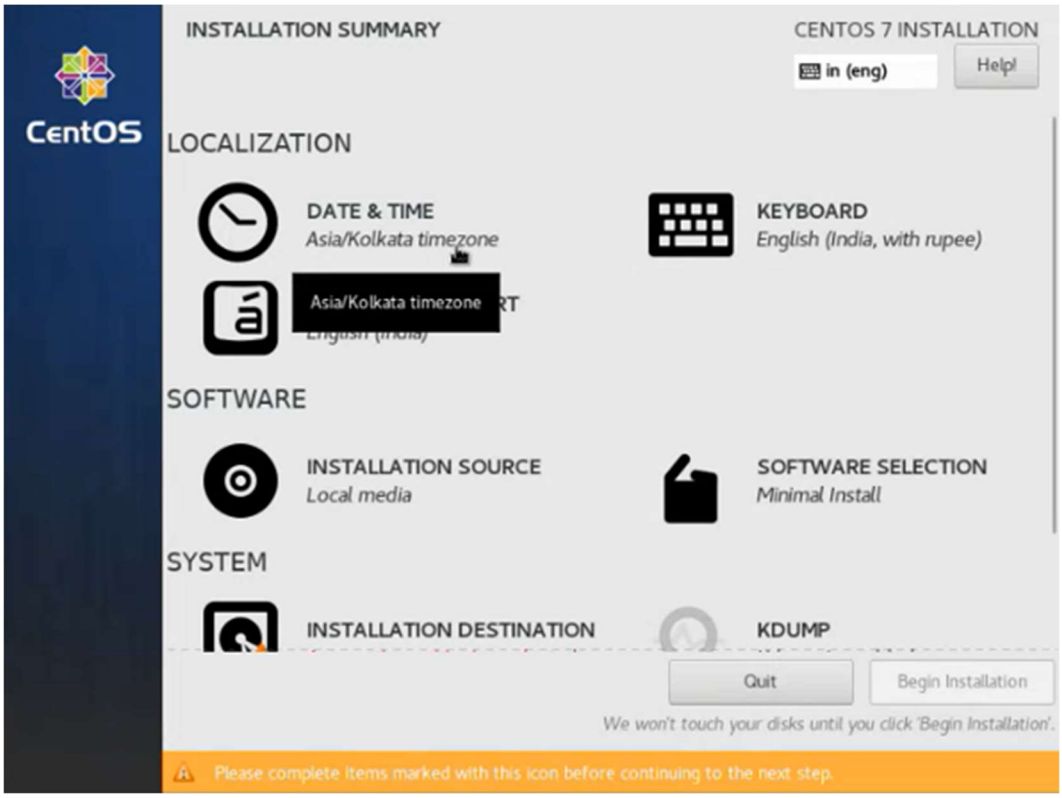
2. Once you've selected "Install CentOS 7," the system will start loading the installer from the media. After a moment, a Welcome screen will pop up.

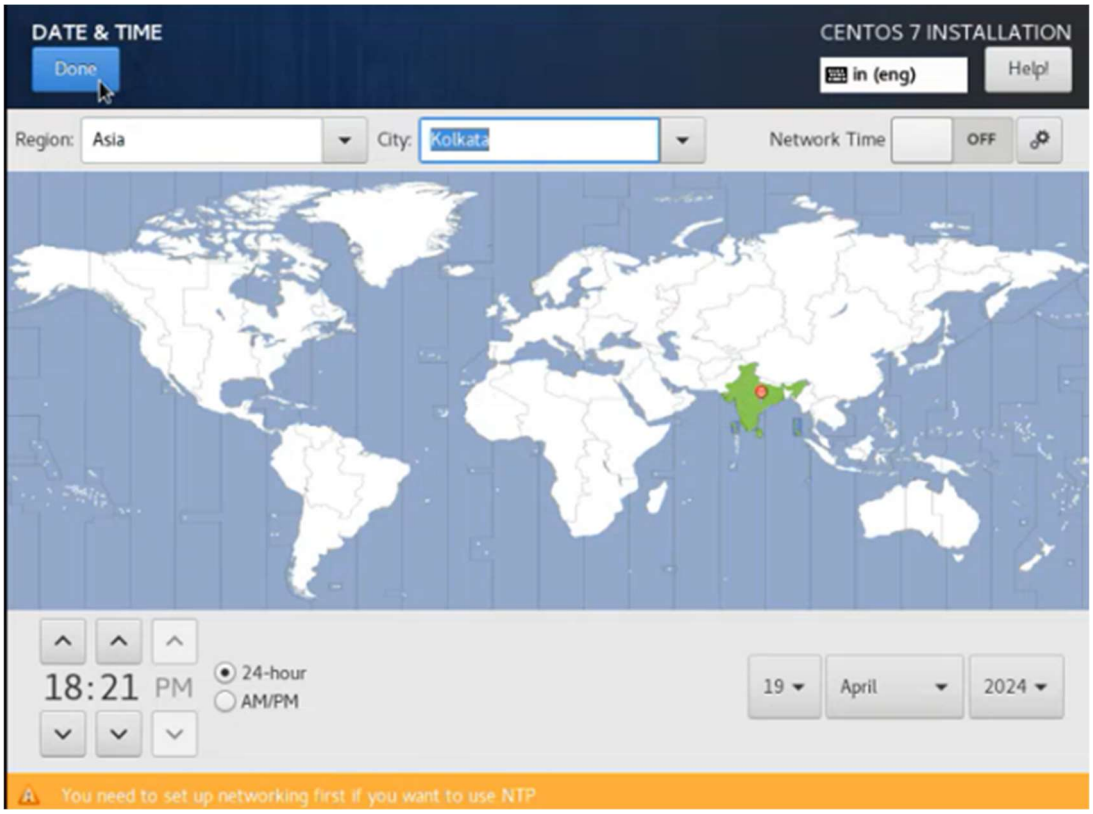


3. Next, choose your preferred installation process language. Once selected, click on "Continue" to proceed with the installation.

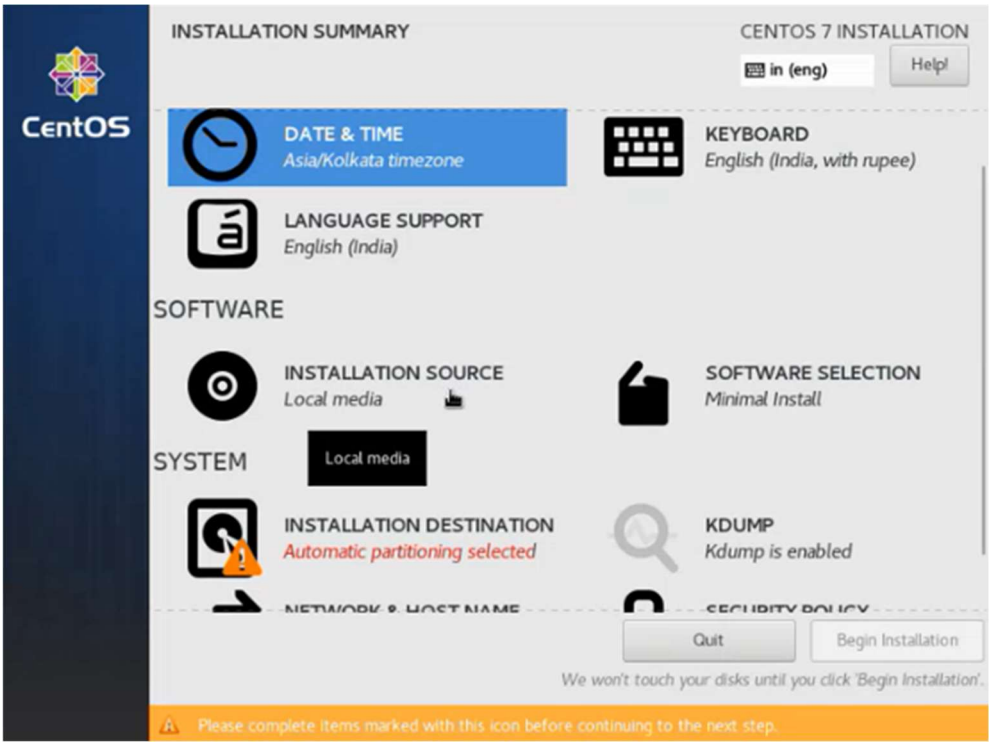


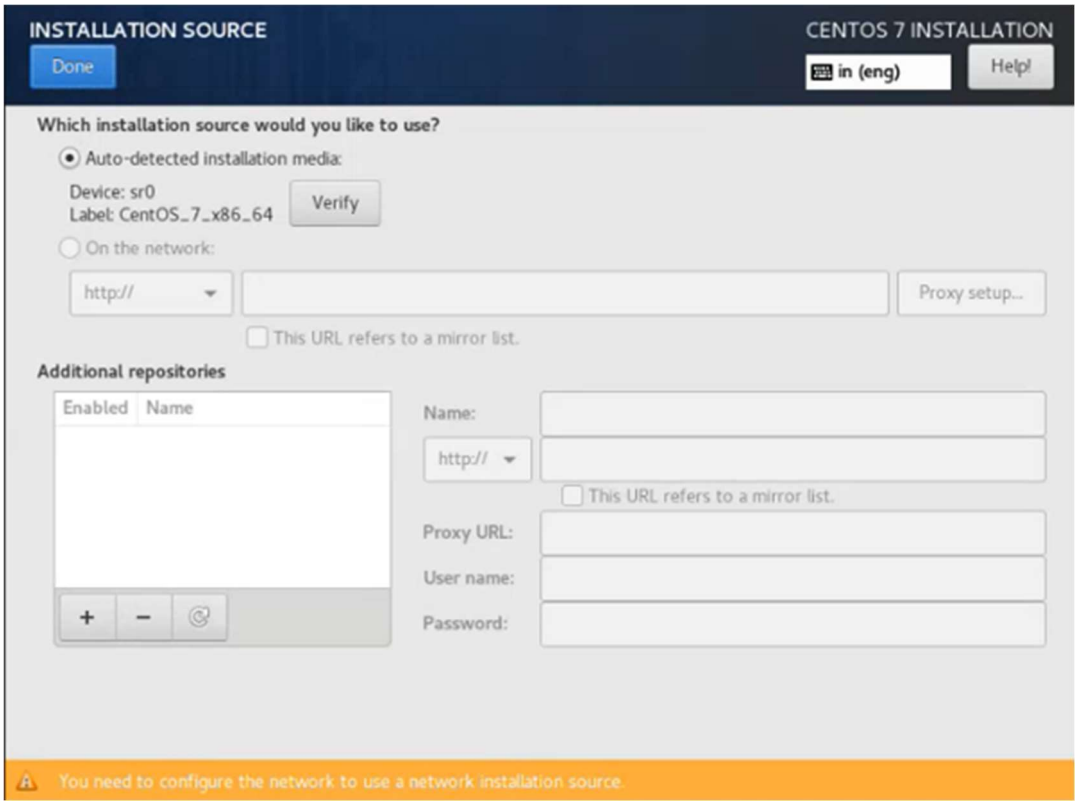
4. The next step is to click on Date & Time then select the server's physical location from the provided map (Here I selected Asia/Kolkata timezone)and hit on the upper Done button to apply configuration.



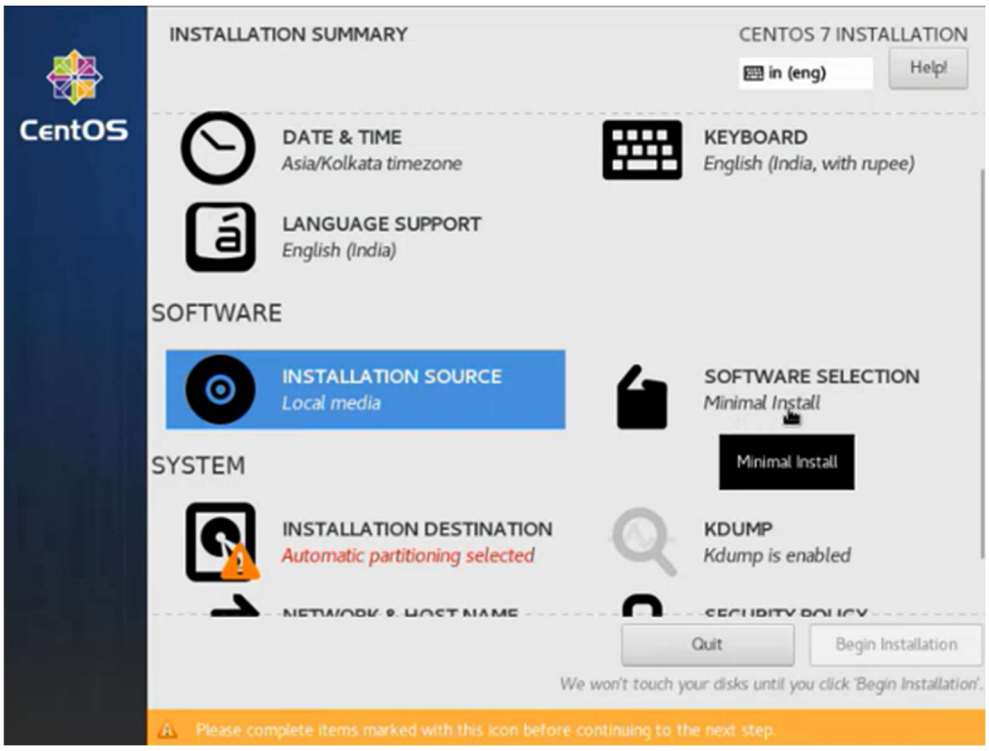


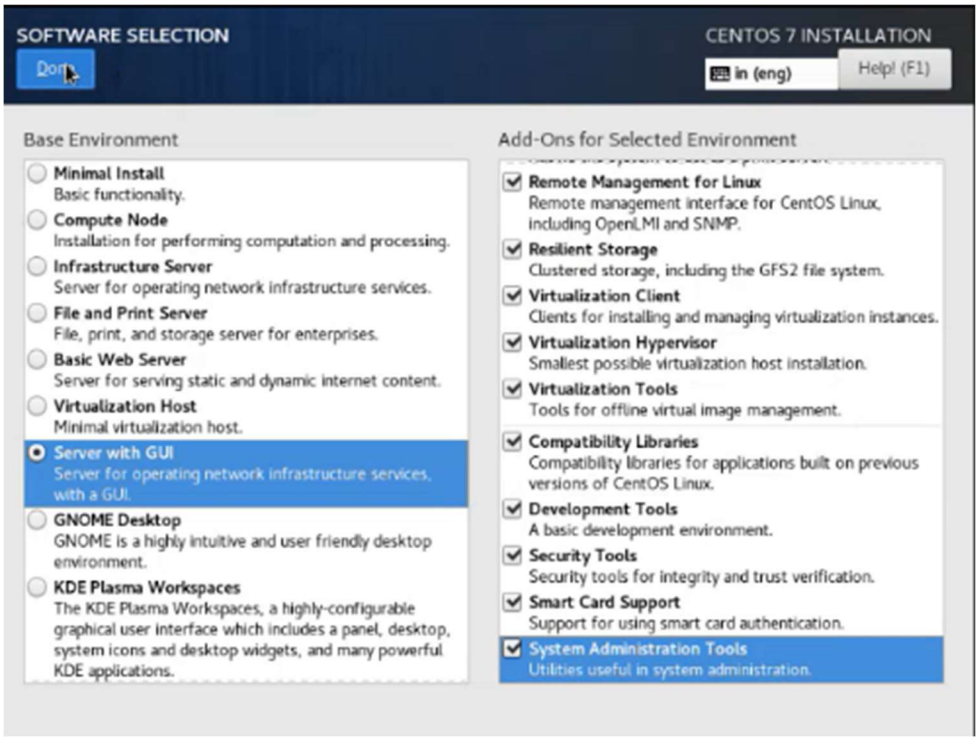
5. the next step is to choose the installation source. Stick with the default option of "Auto-detected installation media" and then select "Done" to move on to the next step.



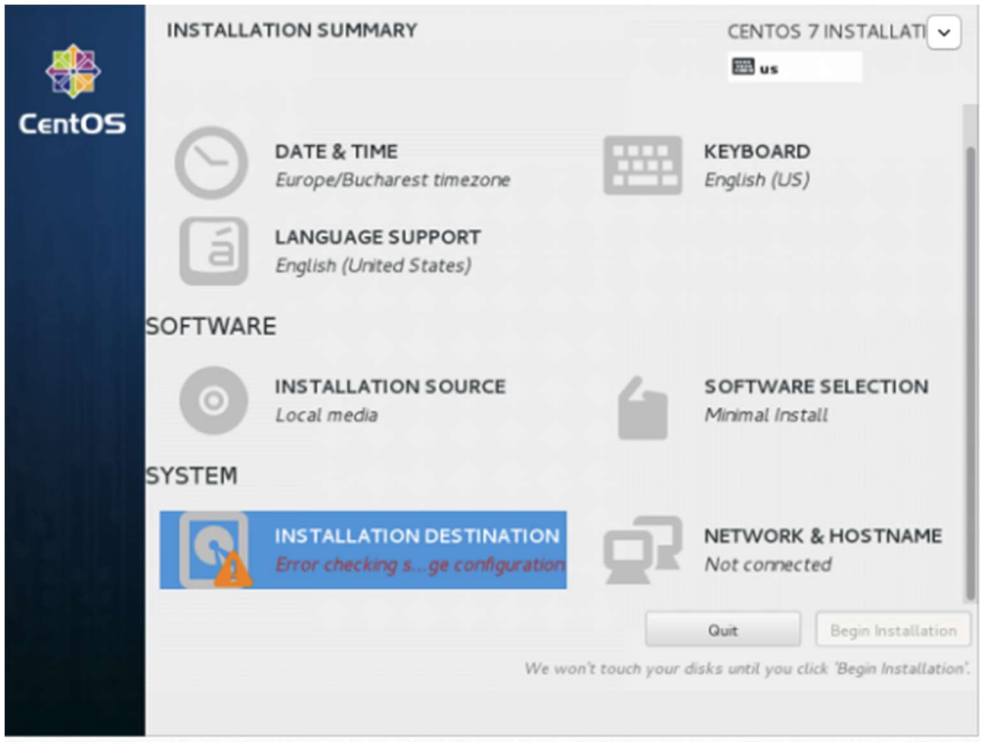


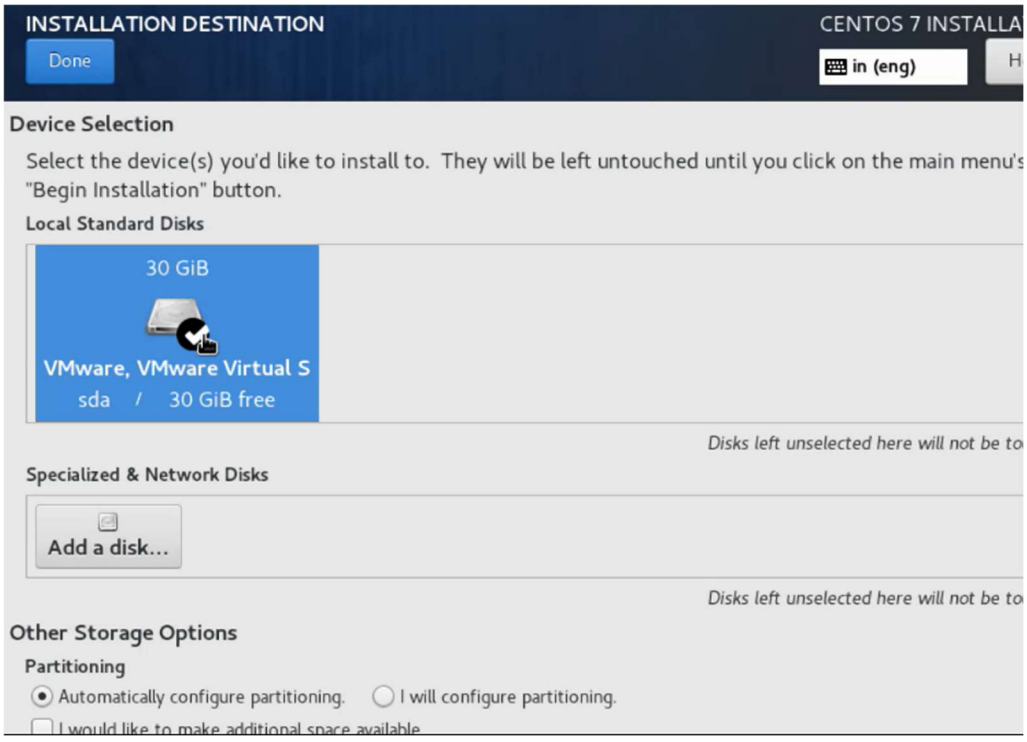
6. Next is to choose the system installation software. Here, select "Server with GUI" to ensure a complete server installation in graphical mode, which is helpful for easier navigation and management. Additionally, choose to select all add-ons environments to ensure you have access to a wide range of software tools and features and and click on "Done".


INSTALLATION SUMMARY
CENTOS 7 INSTALLATION
in (eng)
Help!
CentOS
DATE & TIME
Asia/Kolkata timezone
KEYBOARD
English (India, with rupee)
LANGUAGE SUPPORT
English (India)
SOFTWARE
INSTALLATION SOURCE
Local media
SOFTWARE SELECTION
Minimal Install
Minimal Install
SYSTEM
INSTALLATION DESTINATION
Automatic partitioning selected
KDUMP
Kdump is enabled
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.

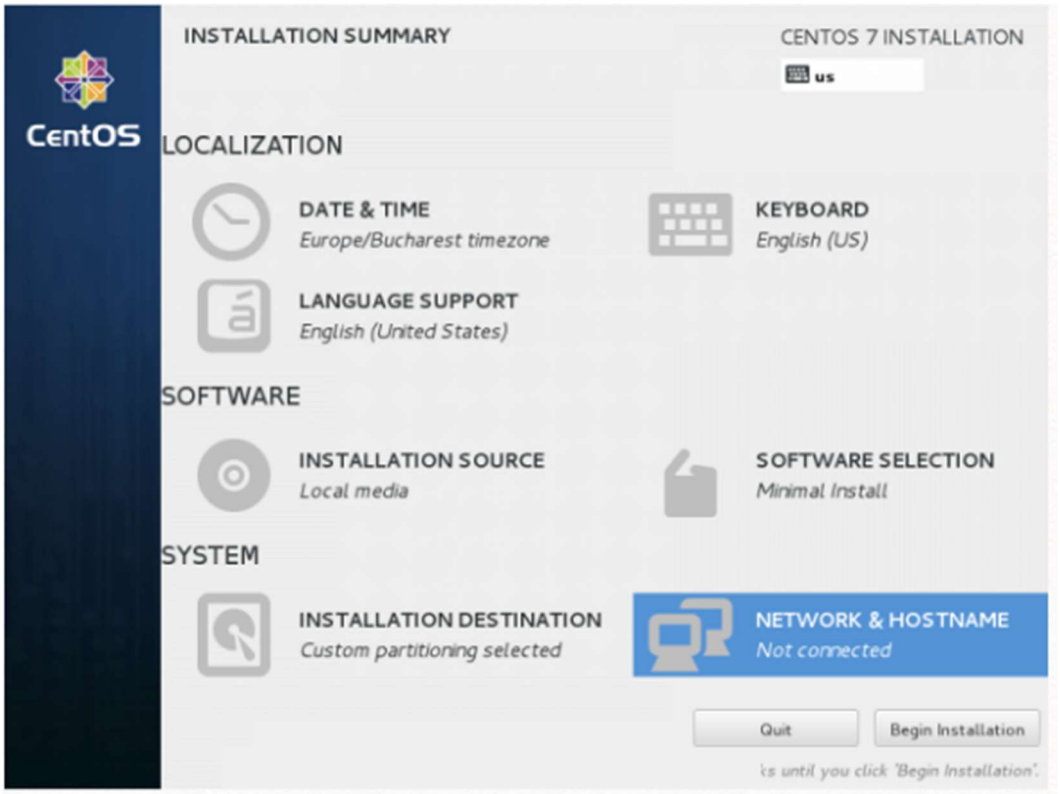

SOFTWARE SELECTION
Done
CENTOS 7 INSTALLATION
in (eng)
Help! (F1)
Base Environment
Minimal Install
Basic functionality.
Compute Node
Installation for performing computation and processing.
Infrastructure Server
Server for operating network infrastructure services.
File and Print Server
File, print, and 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
Remote Management for Linux
Remote management interface for CentOS Linux, including OpenLMI and SNMP.
Resilient Storage
Clustered storage, including the GFS2 file system.
Virtualization Client
Clients for installing and managing virtualization instances.
Virtualization Hypervisor
Smallest possible virtualization host installation.
Virtualization Tools
Tools for offline virtual image management.
Compatibility Libraries
Compatibility libraries for applications built on previous versions of CentOS Linux.
Development Tools
A basic development environment.
Security Tools
Security tools for integrity and trust verification.
Smart Card Support
Support for using smart card authentication.
System Administration Tools
Utilities useful in system administration.

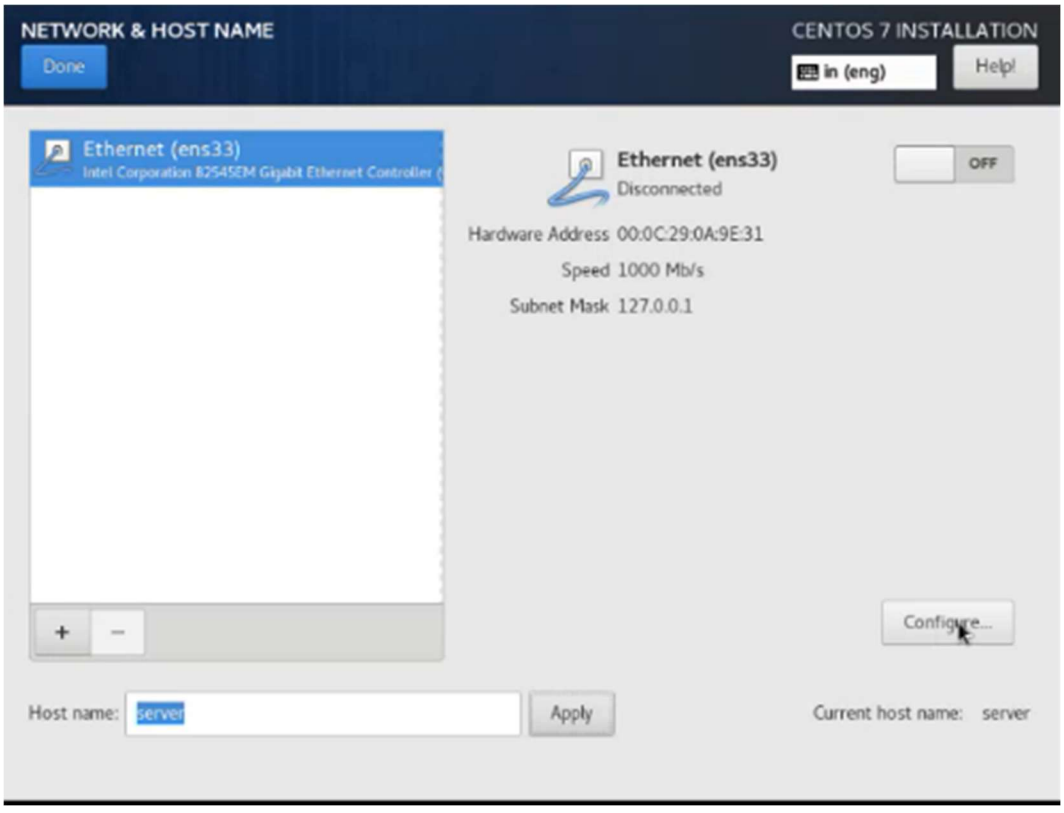
7. The next step is to partition the hard drive. Click on the "Installation Destination" menu, where you'll see a list of available disks. Choose the local standard disk with a blue background and a white tick with a black background. then select the option to" automatically configure partitioning" and click on "Done".This will set up the partitions according to default settings, simplifying the process for you.



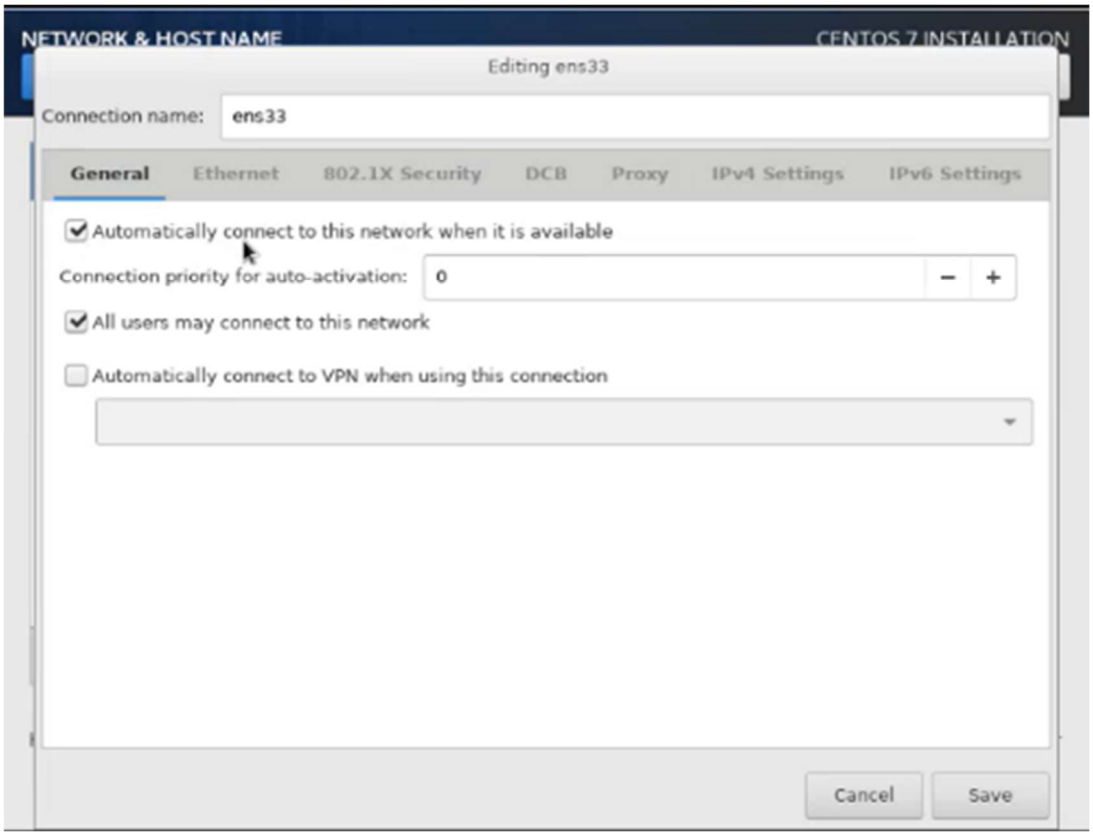


8. Next, navigate to the "Network & Hostname" section. Now the network is not connected, proceed by providing a hostname, Here it is 'server', and click on the apply button. Then, click on "Configure" to set up the network connection.

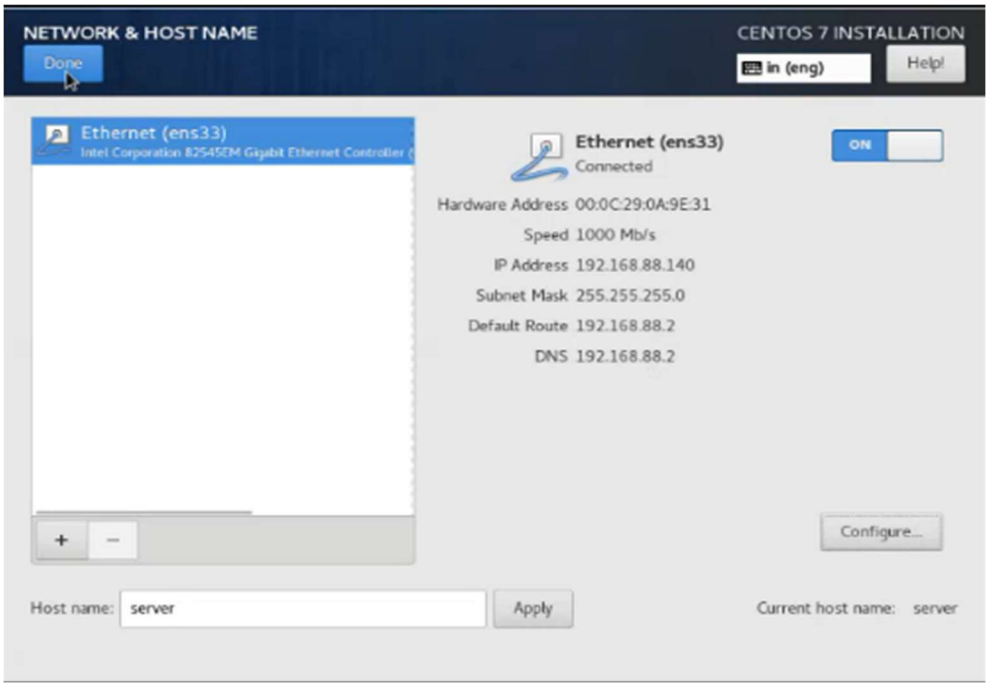




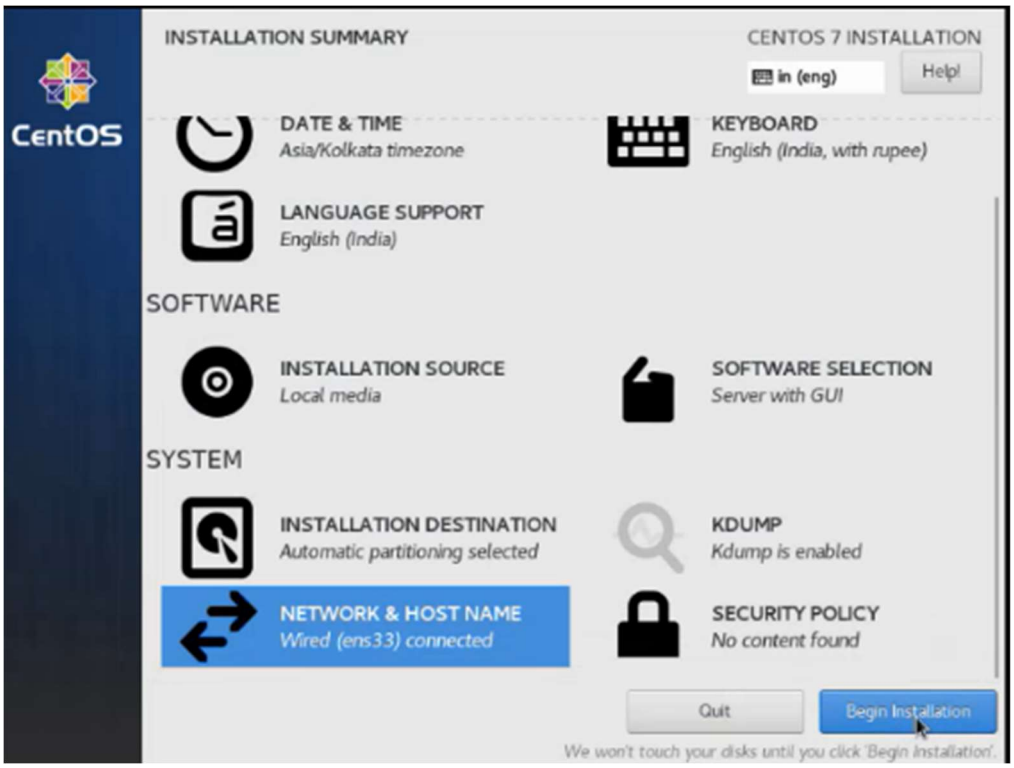
In the configuration window, click on "General" and check the option "Automatically connect to this network when it is available." Afterward, save the settings.



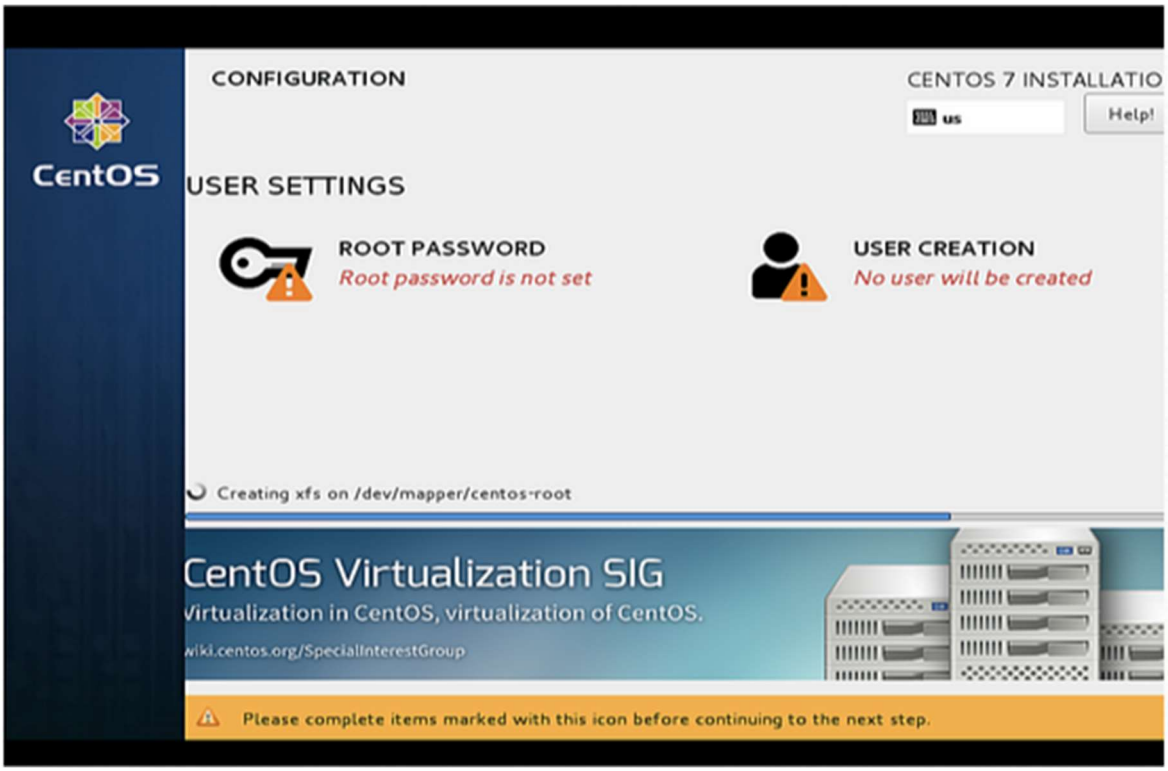
Now, enable the network interface by toggling the top Ethernet button to the ON position. Once enabled, verify the IP address, subnet, and DNS, which will be displayed on the screen. This ensures that your network connection is properly configured and active.



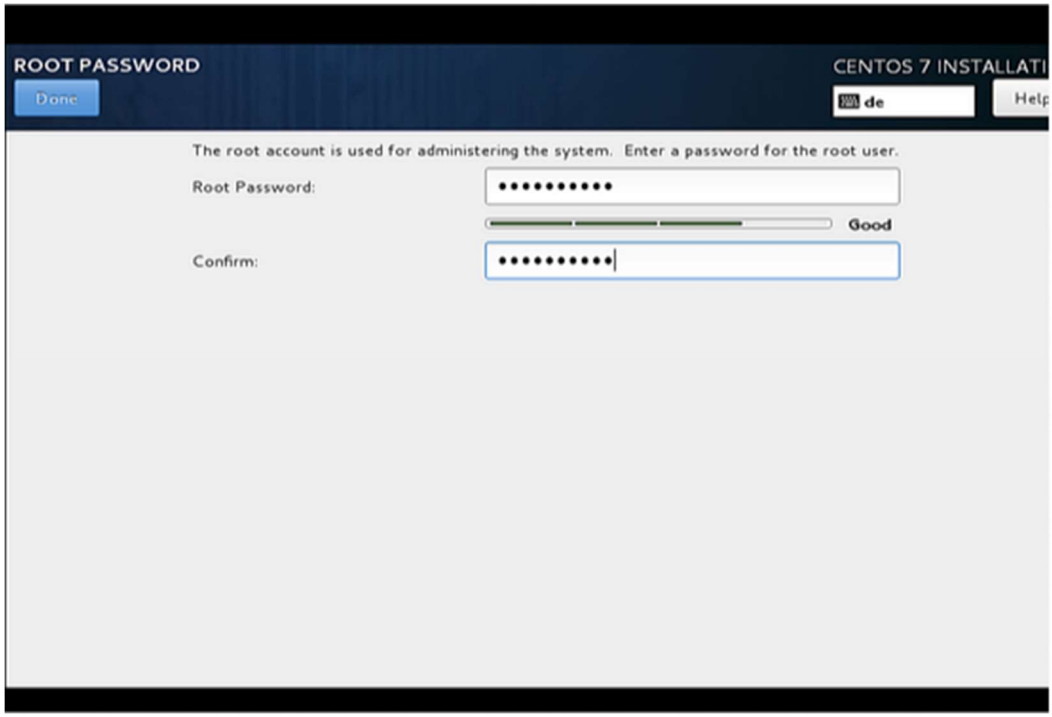
9. Now it’s time to start the installation process by pressing on the Begin Installation button and setting up a strong password for the root account.



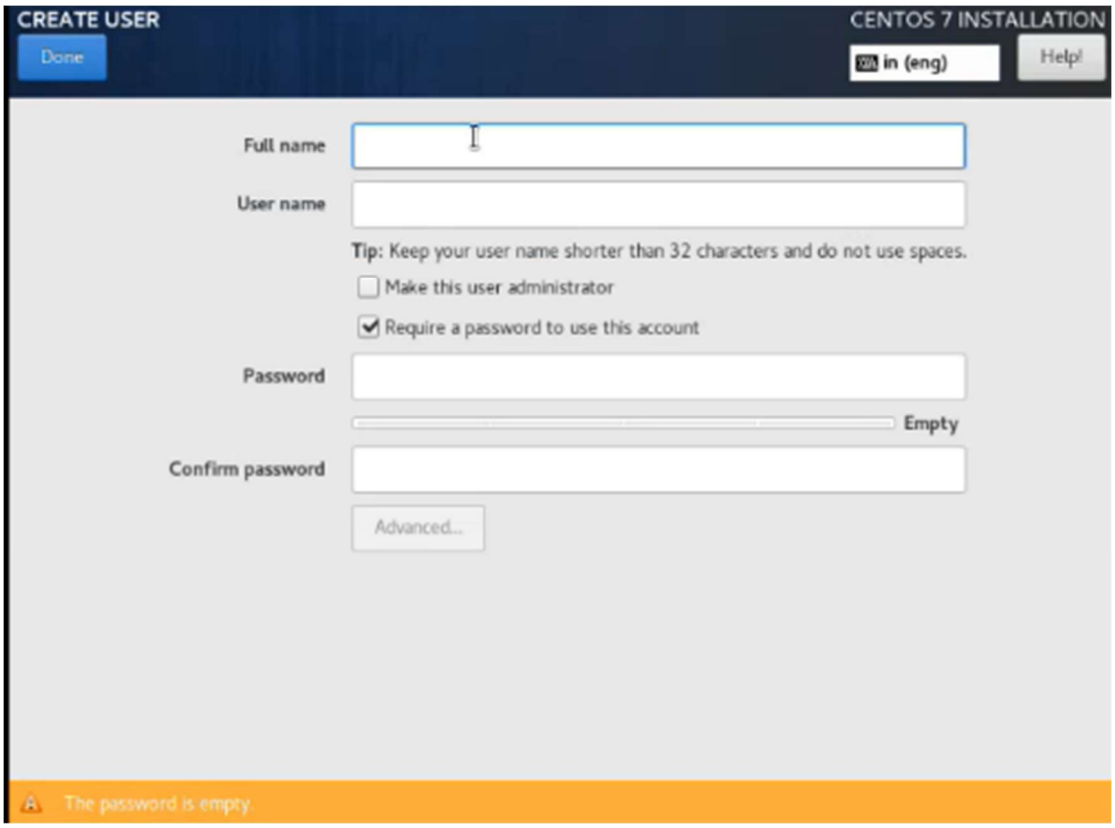
10. The installation starts now, you'll see a small blue progress bar in the window After that, you'll be prompted to set the root password. Follow the instructions to set a secure password for the root user account. Once that's done, create a new user account also.



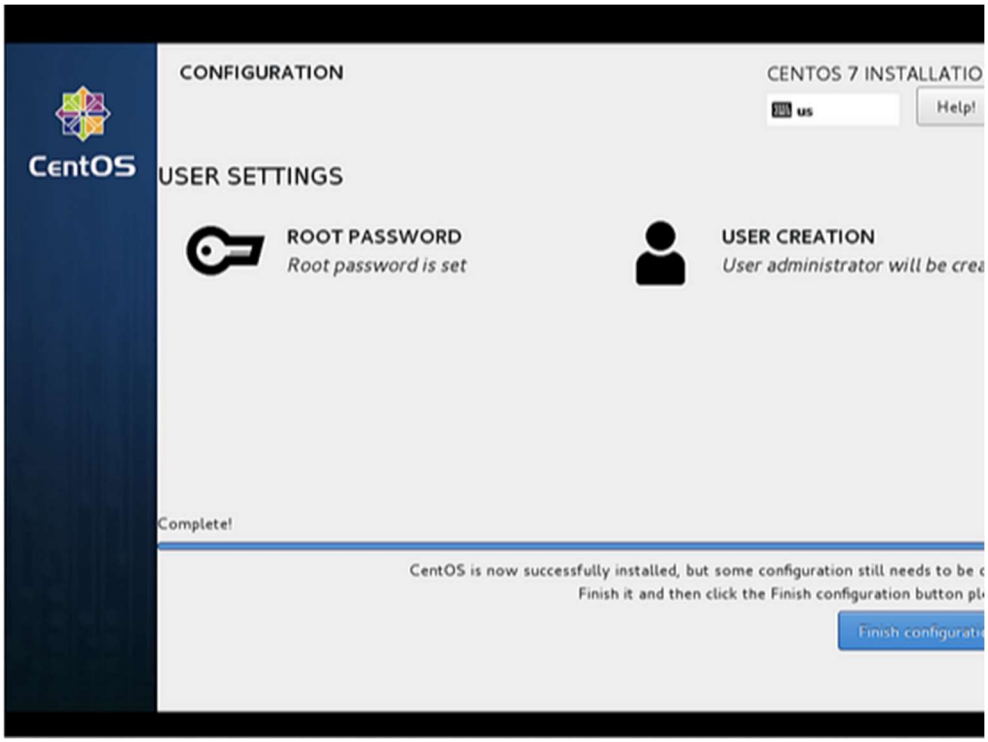
11. Enter a secure password and press Done



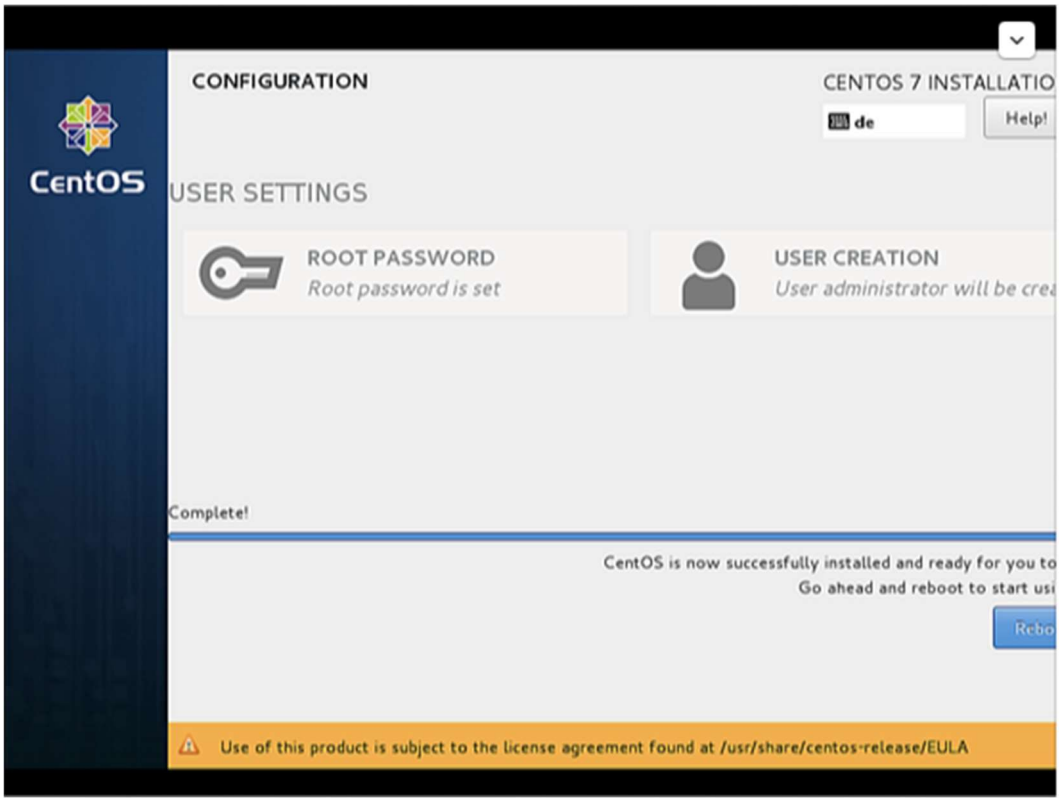
12. Next I will create user, as in my case I used the Full name "Aswani", check the options " make this user administrator " and "Require the password to use this account" and then press Done.



13. Once the installation is done. Click on "Finish Configuration."



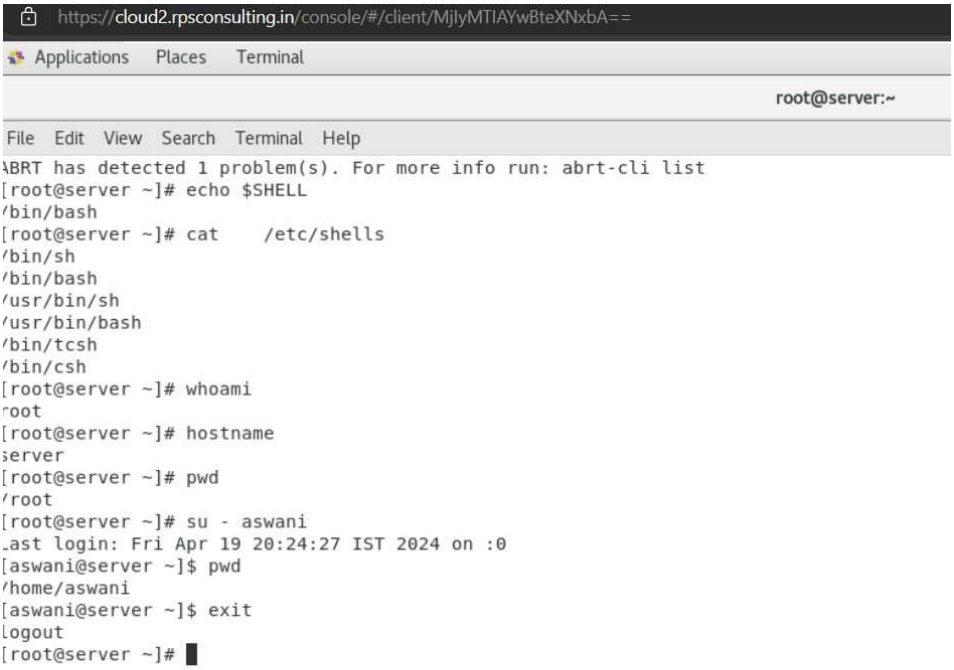
14. After completion of the installation, it will ask to reboot the server, just press the reboot button.



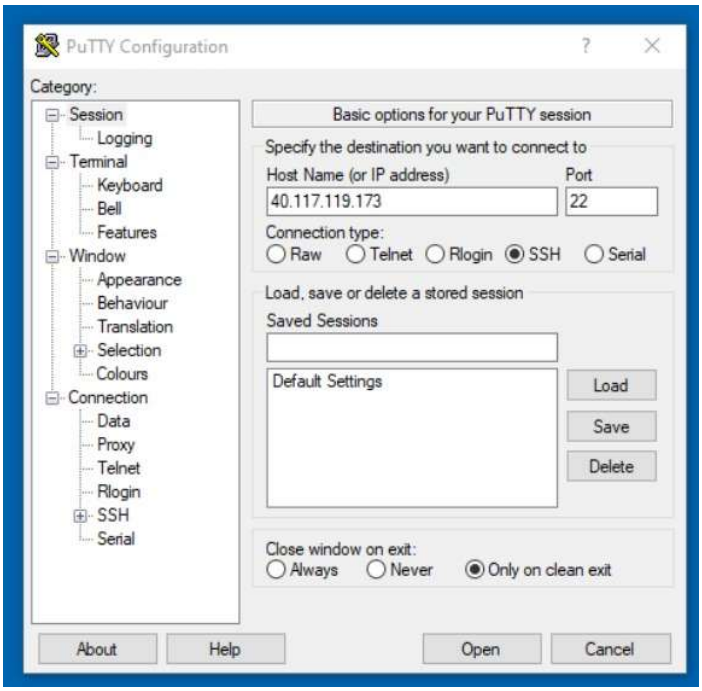
The server reboots and will request your username and password afterward.

Login as Root: Log in with the root user credentials. Select "Not Listed" and enter the username as "root" and the password provided during installation.

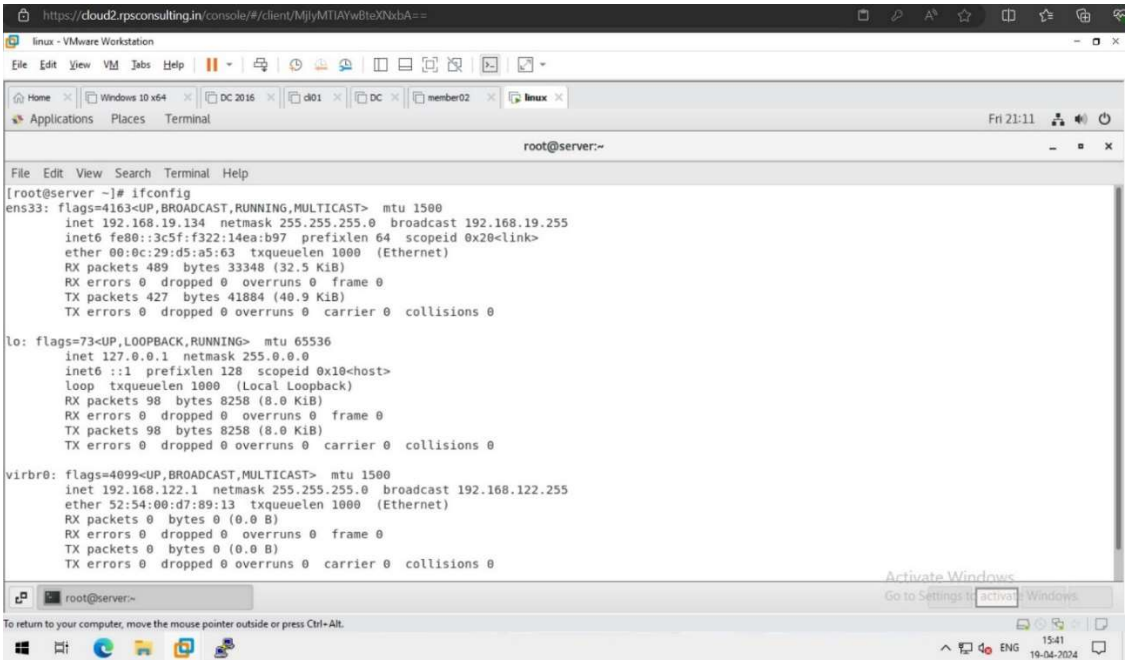
1. These commands are used to navigate and manage files within the Linux file system, as well as to view system information.



2. Installed the puTTY and gave an IP address as 40.117.119.173 and port as 22
   Make sure the connection type in SSH



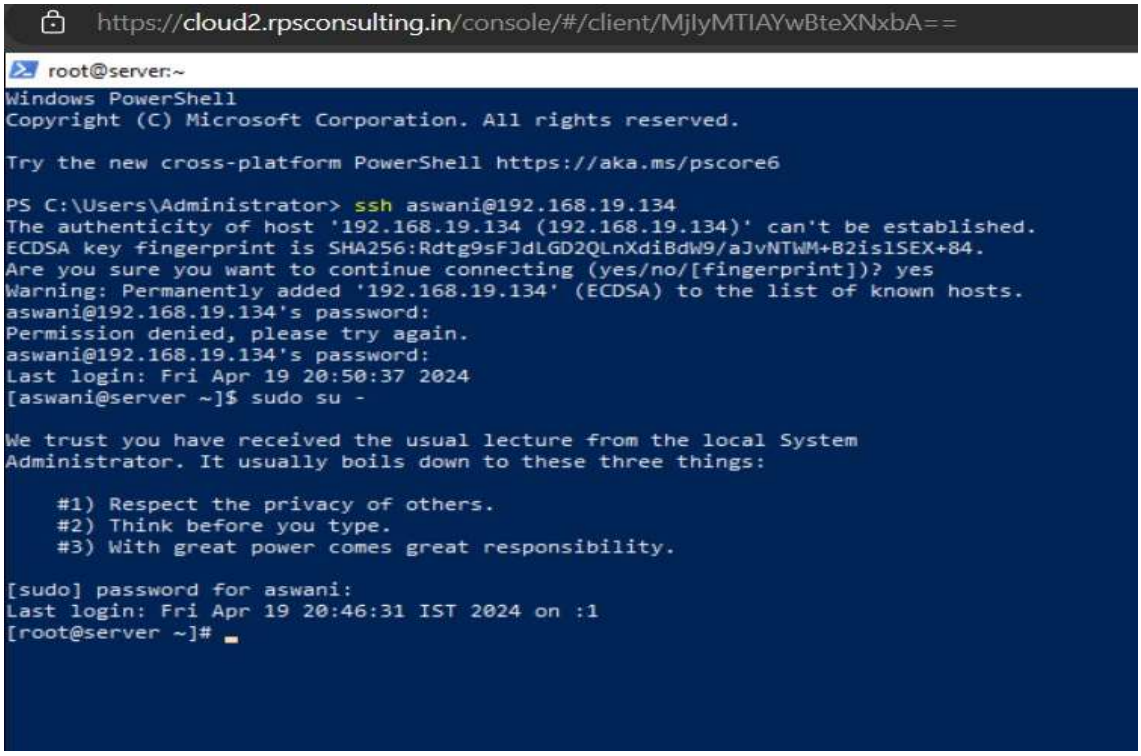
3. Ifconfig: It Shows details about a network interface, such as IP address, netmask, and the broadcast.



4. Later in Powershell,

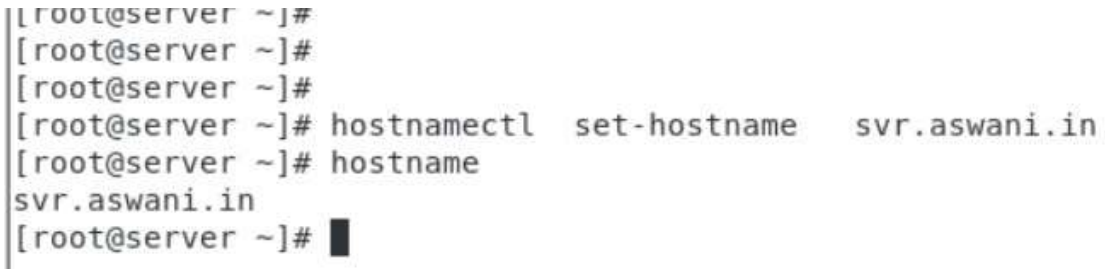
   SSH Connection: it is attempting to connect to a server with the IP address 192.168.19.134 using SSH.

   This sequence of commands is typical for a user trying to access and perform administrative tasks on a remote server.

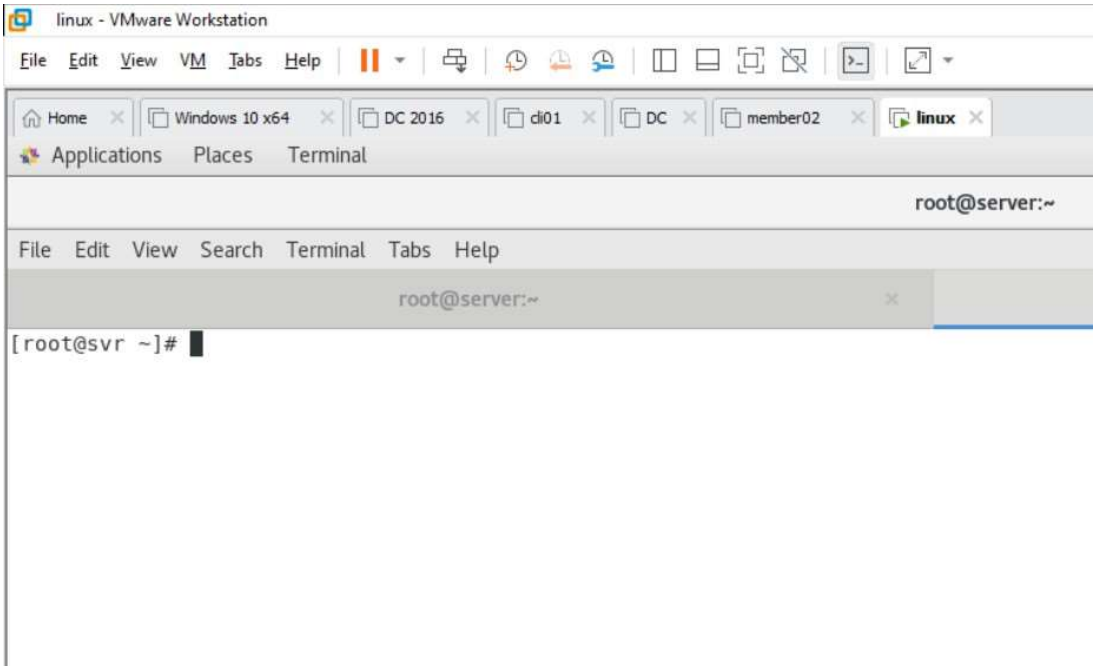


5. Here I am (user), logged in as root, is changing the hostname of the server to svr.aswani.in using the hostnamectl set-hostname command. After changing the hostname, the hostname command is used to confirm that the change was successful, and the new hostname svr.aswani.in is displayed.

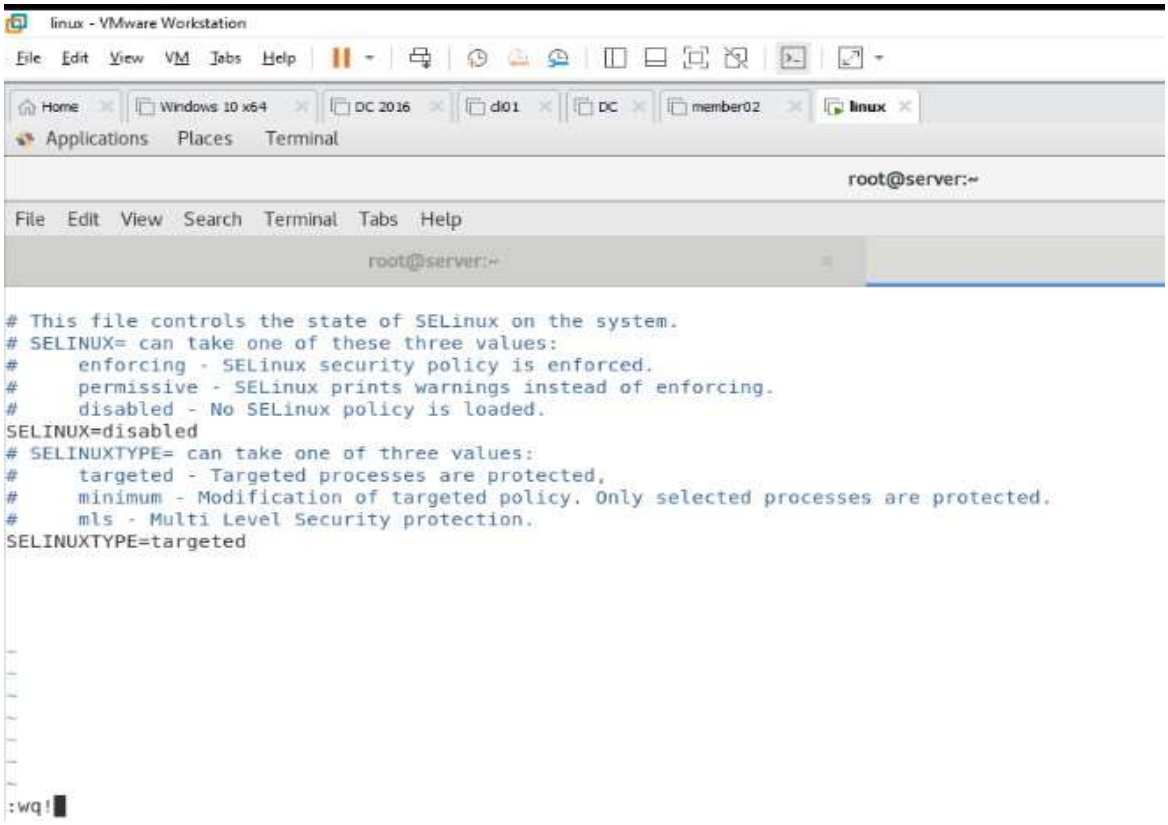
   hostname: Displays the current system's hostname.



6. Here it shows the configured hostname of a Linux server



7. SELINUX



1. getenforce: This command displays the current mode of SELinux, which can be either Enforcing, Permissive, or Disabled.

2. vim /etc/selinux/config: opened the SELinux configuration file in Vim, which is a text editor in the terminal.

   (SELinux States:

   Enforcing: SELinux security policy is actively enforced.

   Permissive: SELinux allows actions but logs warnings.

   Disabled: SELinux is turned off; no policies are loaded.)

   To change the mode from Enforcing to Disabled, enter insert mode by pressing “I”, then replace the word “enforcing” with “disabled” in the configuration file.

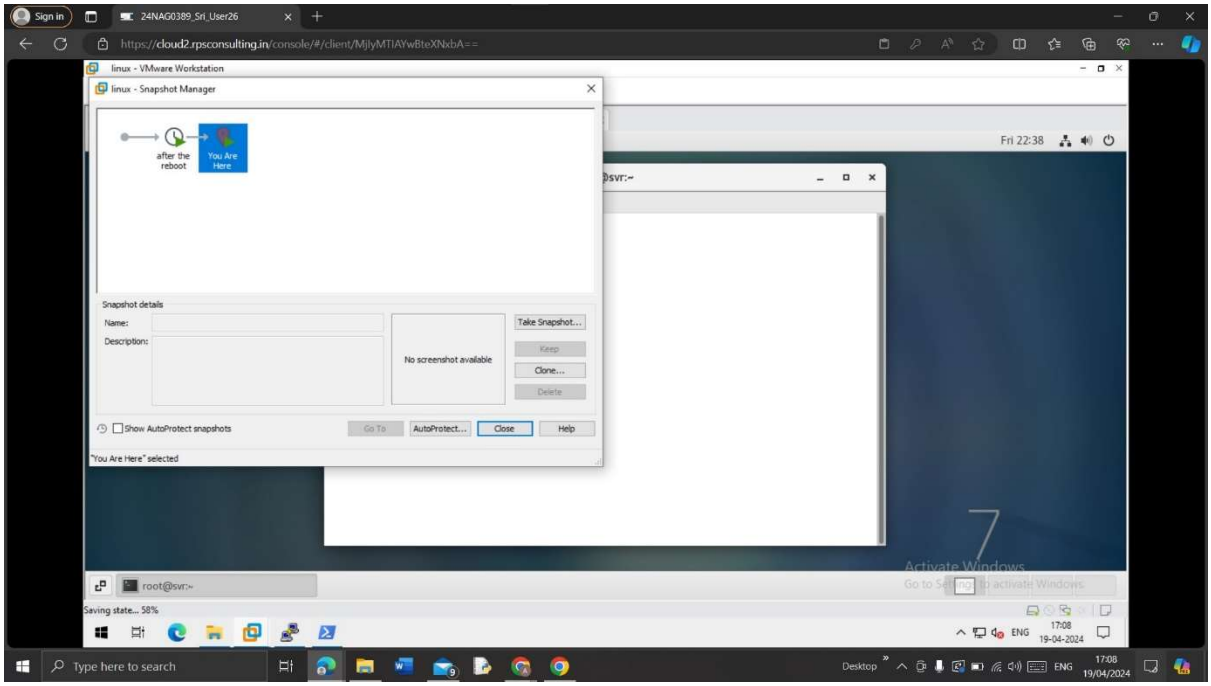
   After making the change, press “Esc” to exit insert mode.

   then type “:wq! “ to write the changes to the file and quit Vim forcefully.

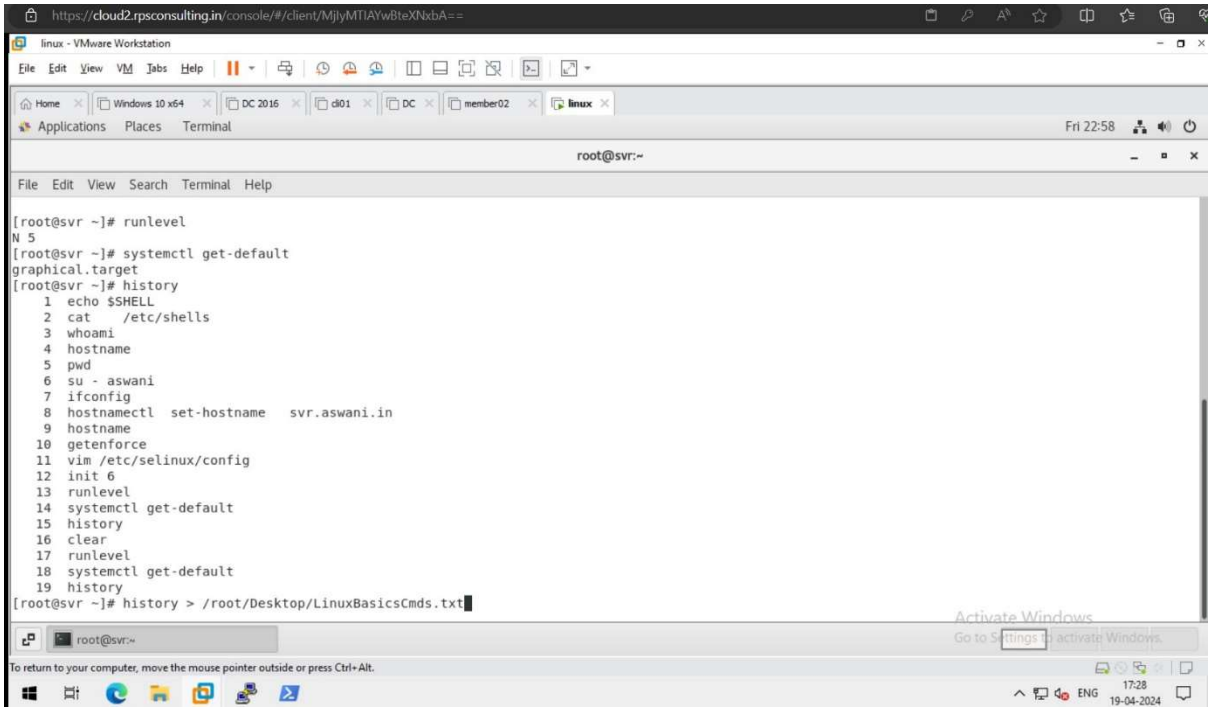
   Finally, enter “ init 6 “ In the terminal, which is a command to reboot the system.

   Now, when the system starts up again, SELinux should be disabled.

8. Then , took a snapshot here



9. Extra,



runlevel: Displays the current runlevel of the system. The output " N 5" indicates that the system is in multi-user mode with a graphical user interface (GUI).

systemctl get-default: Shows the default target (runlevel) the system boots into, which is graphical.target, confirming the GUI mode.

history: Lists the previously executed commands, including system configuration and networking commands like hostname, nmcli, ifconfig, and SELinux status check with getenforce.

The command history > /root/Desktop/LinuxBasicsCmds.txt redirects the output of the history command to a text file named 'LinuxBasicsCmds.txt' on the desktop.