



ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର, ଓଡ଼ିଶା
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DIPLOMA IN COMPUTER APPLICATION (DCA)

SESSION: 2016-2017

DCA01: COMPUTER FUNDAMENTALS

LINUX LAB MANUAL

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1. Red Hat Linux Installation

<p><u>Step -1</u></p>	<p><u>Step-2</u></p>
 <p>Welcome to Red Hat Enterprise Linux 6.0!</p> <p>Install or upgrade an existing system Install system with basic video driver Rescue installed system Boot from local drive</p> <p>Press [Tab] to edit options</p> <p>Automatic boot in 55 seconds...</p> <p>RED HAT® ENTERPRISE LINUX® 6</p> <p>http://www.tecmint.com</p> <p>Copyright © 2003-2010 Red Hat, Inc. and others. All rights reserved.</p>	 <p>What language would you like to use during the installation process?</p> <ul style="list-style-type: none"> Bulgarian (български) Catalan (Català) Chinese(Simplified) (中文 (简体)) Chinese(Traditional) (中文 (繁體)) Croatian (Hrvatski) Czech (Čeština) Danish (Dansk) Dutch (Nederlands) English (English) Estonian (eesti keel) Finnish (suomi) French (Français) German (Deutsch) Greek (Ελληνικά) Gujarati (ગુજરાતી) Hebrew (עברית) Hindi (हिन्दी) <p>http://www.tecmint.com</p> <p>Back Next</p>
<p>Place the Linux 6 DVD in the DVD drive</p>	<p>Select Language.</p>
<p><u>Step-3</u></p>	<p><u>Step-4</u></p>
	 <p>Welcome to Red Hat Enterprise Linux for i386</p> <p>Disc Found</p> <p>To begin testing the media before installation press OK.</p> <p>Choose Skip to skip the media test and start the installation.</p> <p>OK Skip</p> <p>http://www.tecmint.com</p> <p><Tab>/<Alt-Tab> between elements <Space> selects <F12> next screen</p>
<p>Select keyboard type</p>	<p>Choose skip media test below</p>

Step-5



What type of devices will your installation involve?

Basic Storage Devices
☒ Installs or upgrades to typical types of storage devices. If you're not sure which option is right for you, this is probably it.

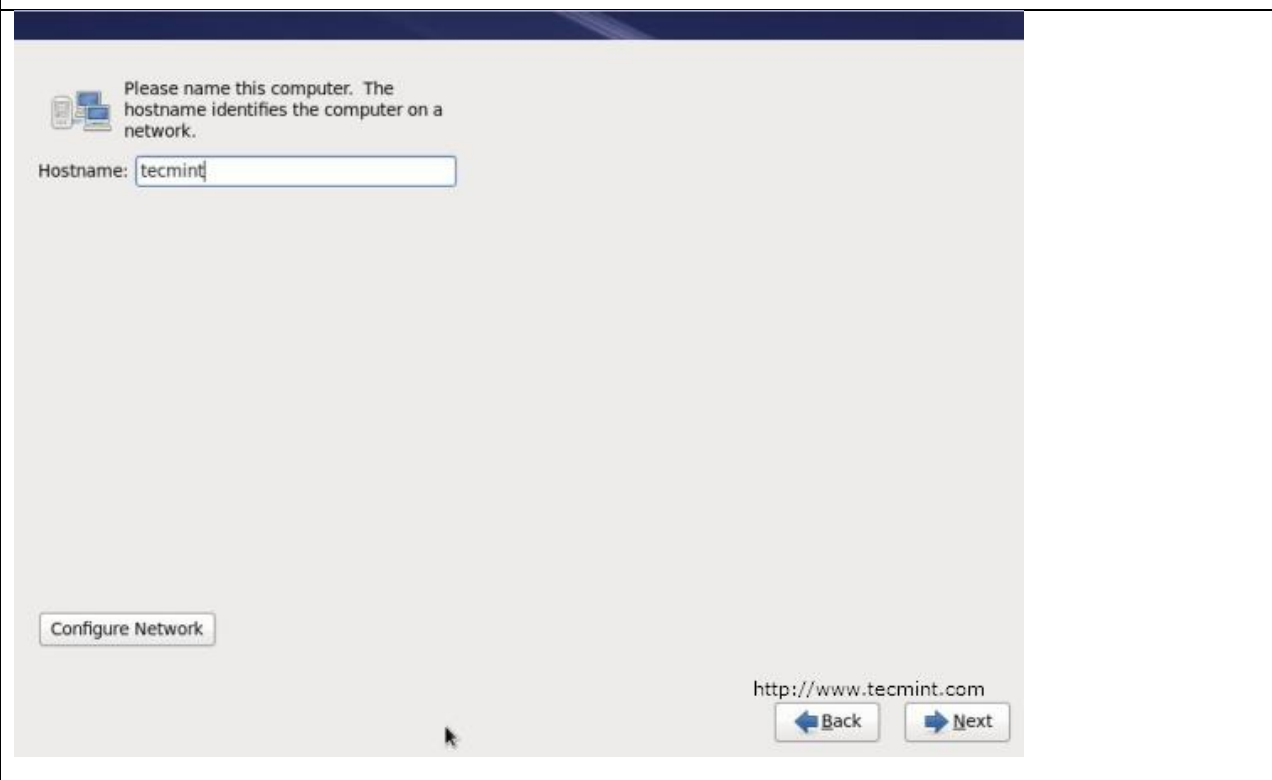
Specialized Storage Devices
☐ Installs or upgrades to enterprise devices such as Storage Area Networks (SANs). This option will allow you to add FCoE / iSCSI / zFCP disks and to filter out devices the installer should ignore.


<http://www.tecmint.com>

[Back](#) [Next](#)

Select storage device

Step-6



 Please name this computer. The hostname identifies the computer on a network.

Hostname:

[Configure Network](#)

<http://www.tecmint.com>

[Back](#) [Next](#)

Please enter the name of the computer

Step-7

Please select the nearest city in your time zone:



Selected city: Kolkata, Asia
Asia/Kolkata

☒ System clock uses UTC

<http://www.tecmint.com>
[Back](#) [Next](#)

Set the time zone and location

Step-8

The root account is used for administering the system. Enter a password for the root user.

Root Password:

Confirm:

<http://www.tecmint.com>
[Back](#) [Next](#)

Enter root user password

Step-9

Which type of installation would you like?

- ☒ **Use All Space**
Removes all partitions on the selected device(s). This includes partitions created by other operating systems.
Tip: This option will remove data from the selected device(s). Make sure you have backups.
- ☐ **Replace Existing Linux System(s)**
Removes only Linux partitions (created from a previous Linux installation). This does not remove other partitions you may have on your storage device(s) (such as VFAT or FAT32).
Tip: This option will remove data from the selected device(s). Make sure you have backups.
- ☐ **Shrink Current System**
Shrinks existing partitions to create free space for the default layout.
- ☐ **Use Free Space**
Retains your current data and partitions and uses only the unpartitioned space on the selected device(s), assuming you have enough free space available.
- ☐ **Create Custom Layout**
Manually create your own custom layout on the selected device(s) using our partitioning tool.

☐ Encrypt system
☒ Review and modify partitioning layout

<http://www.tecmint.com>
[Back](#) [Next](#)

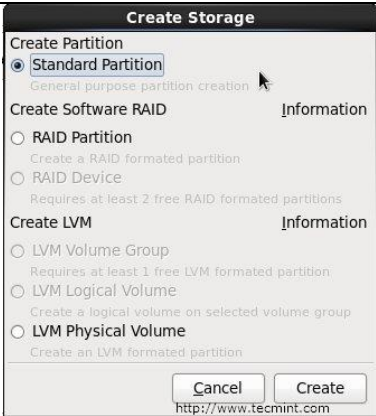
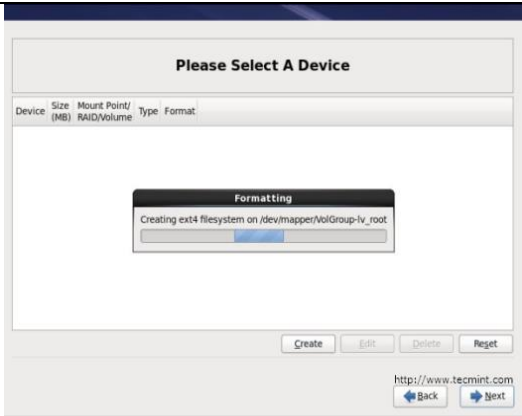
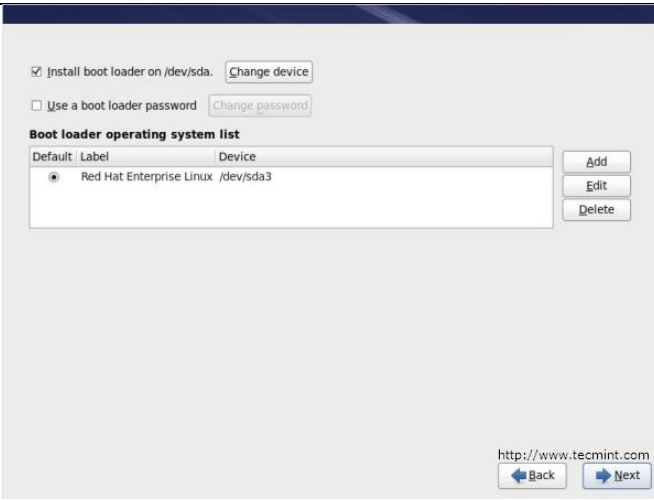
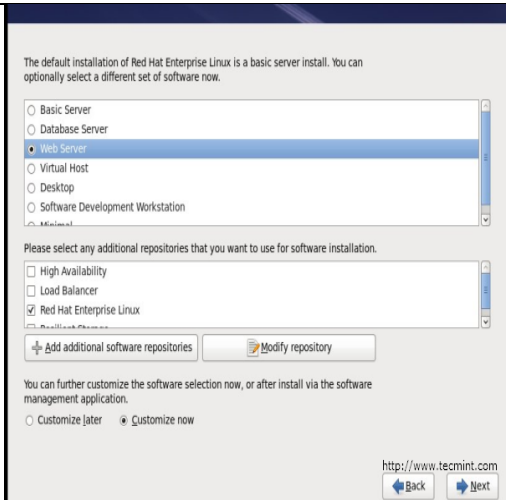
Step-10

Please Select A Device

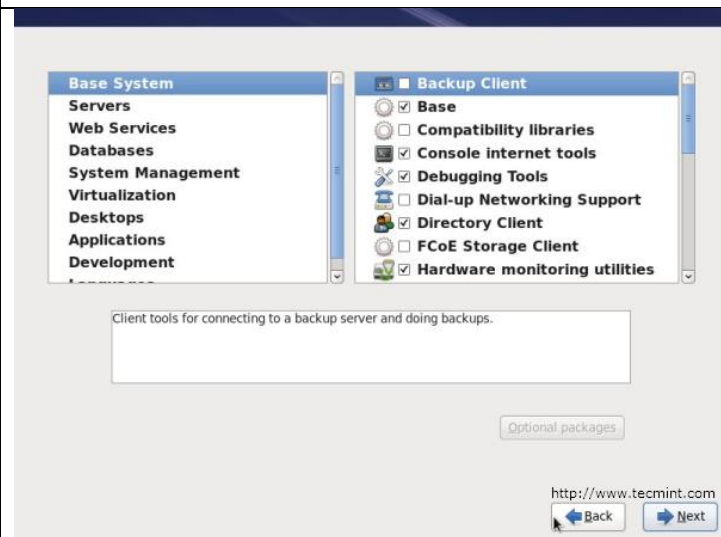
Device	Size (MB)	Mount Point/ RAID/Volume	Type	Format
LVM Volume Groups				
VolGroup	7688			
lv_root	6664	/	ext4	✓
lv_swap	1024		swap	✓
Hard Drives				
sda (non-raid)				
sda1	500	/boot	ext4	✓
sda2	7691	VolGroup	physical volume (LVM)	✓

[Create](#) [Edit](#) [Delete](#) [Reset](#)

<http://www.tecmint.com>
[Back](#) [Next](#)

Select the type of installation	Select the device
Step-11	Step-12
	
Click on the next button as shown above and select standard partition	Create partition and formatting file systems
tep-13	Step-14
	
Configuring boot loader options, also can give boot loader password for security reason	Select applications to install and select customize now

Step-15



copy packaged selection

Step-16 :- Installation



2. Linux Installation using Ubuntu

Install Ubuntu 16.04 LTS

1. Using a DVD?

It's easy to install Ubuntu from a DVD. Here's what you need to do:

Put the Ubuntu DVD into the DVD-drive

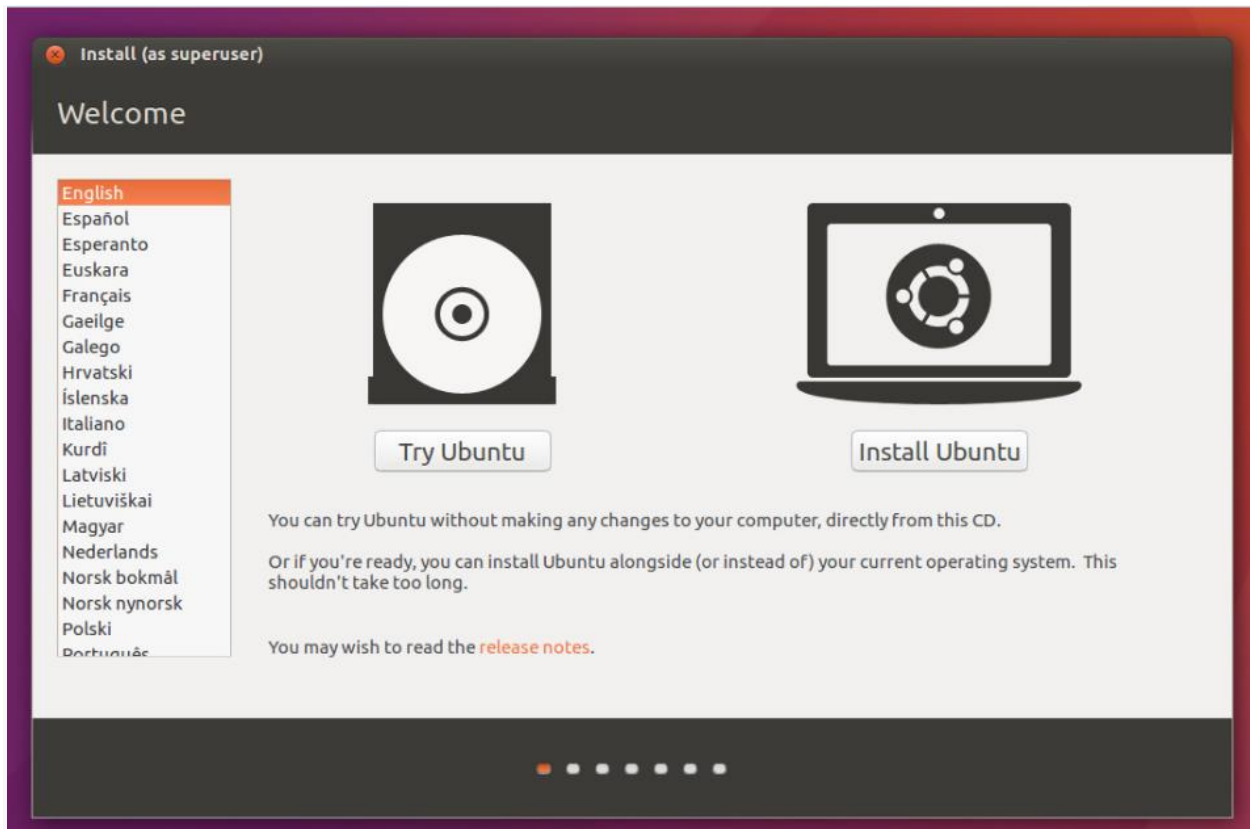
Restart your computer. You should see a welcome screen prompting you to choose your language and giving you the option to install Ubuntu or try it from the DVD.

If you don't get this menu, read the booting from the DVD guide for more information.

Using a USB drive?

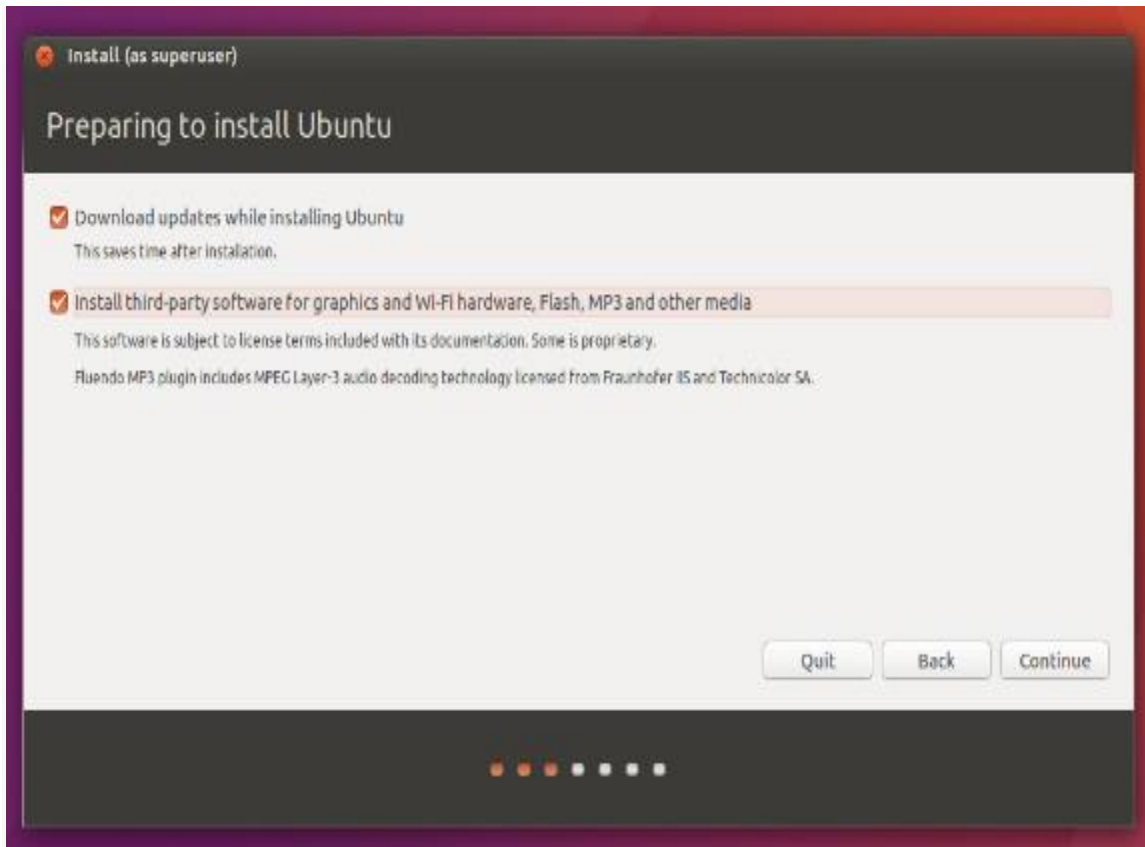
Most newer computers can boot from USB. You should see a welcome screen prompting you to choose your language and giving you the option to install Ubuntu or try it from the USB.

If your computer doesn't automatically do so, you might need to press the F12 key to bring up the boot menu, but be careful not to hold it down - that can cause an error message.



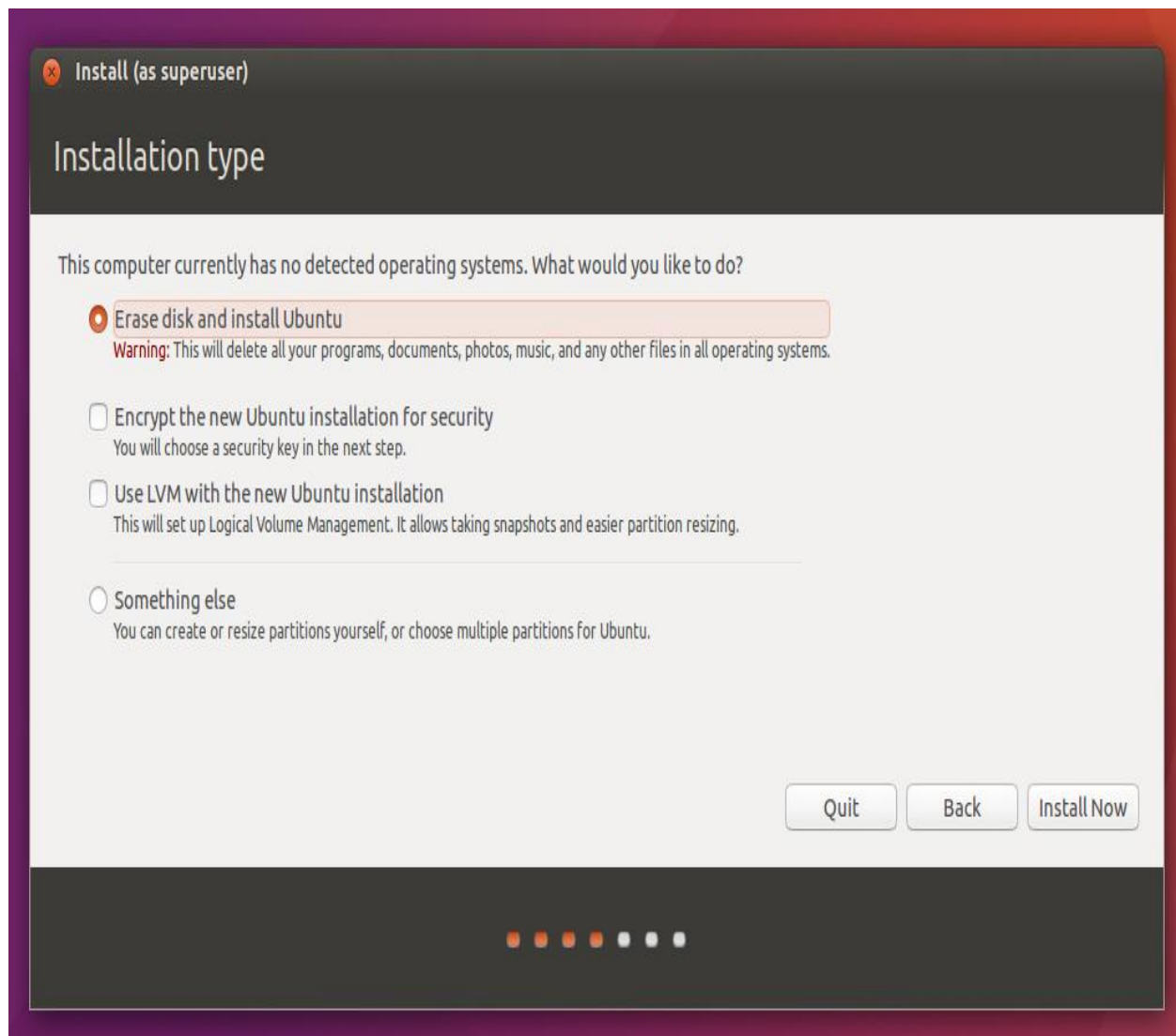
2. Prepare to install Ubuntu

- We recommend you plug your computer into a power source
- You should also make sure you have enough space on your computer to install Ubuntu
- We advise you to select Download updates while installing and Install this third-party software now
- You should also stay connected to the internet so you can get the latest updates while you install Ubuntu
- If you are not connected to the internet, you will be asked to select a wireless network, if available. We advise you to connect during the installation so we can ensure your machine is up to date.



3. Allocate Drive Space

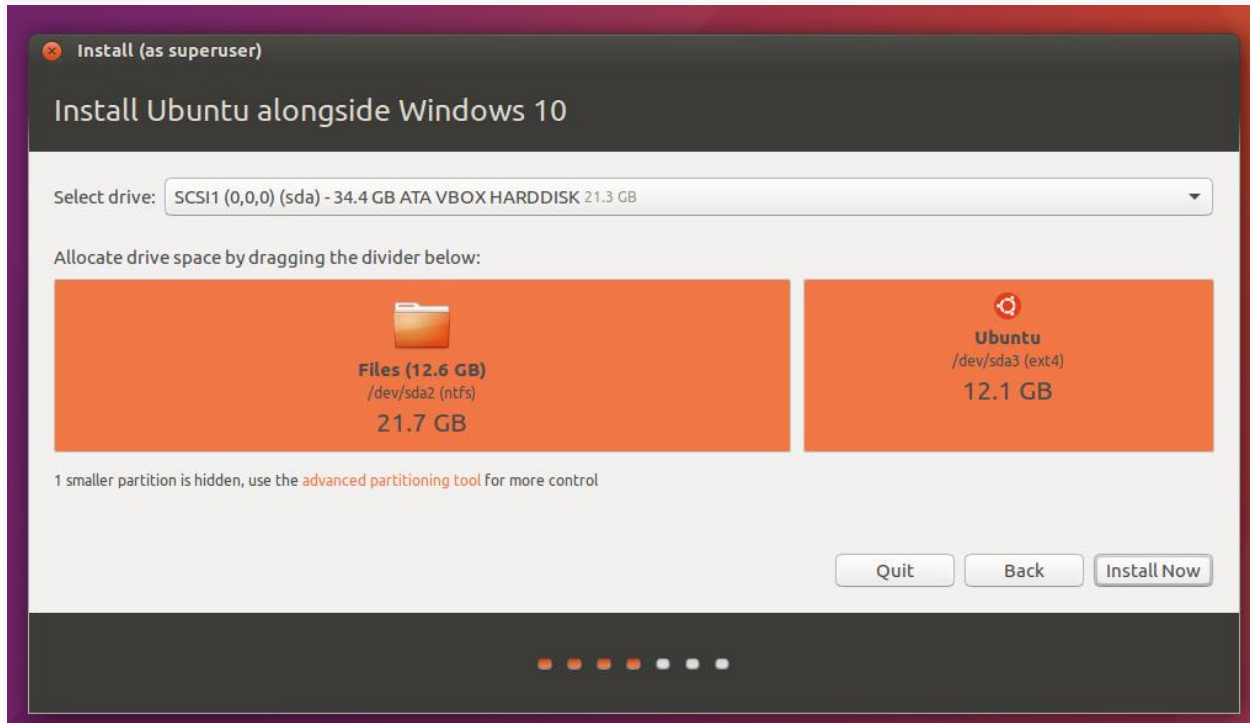
Use the checkboxes to choose whether you'd like to Install Ubuntu alongside another operating system, delete your existing operating system and replace it with Ubuntu, or — if you're an advanced user — choose the 'Something else' option as shown below.



4. Begin the installation

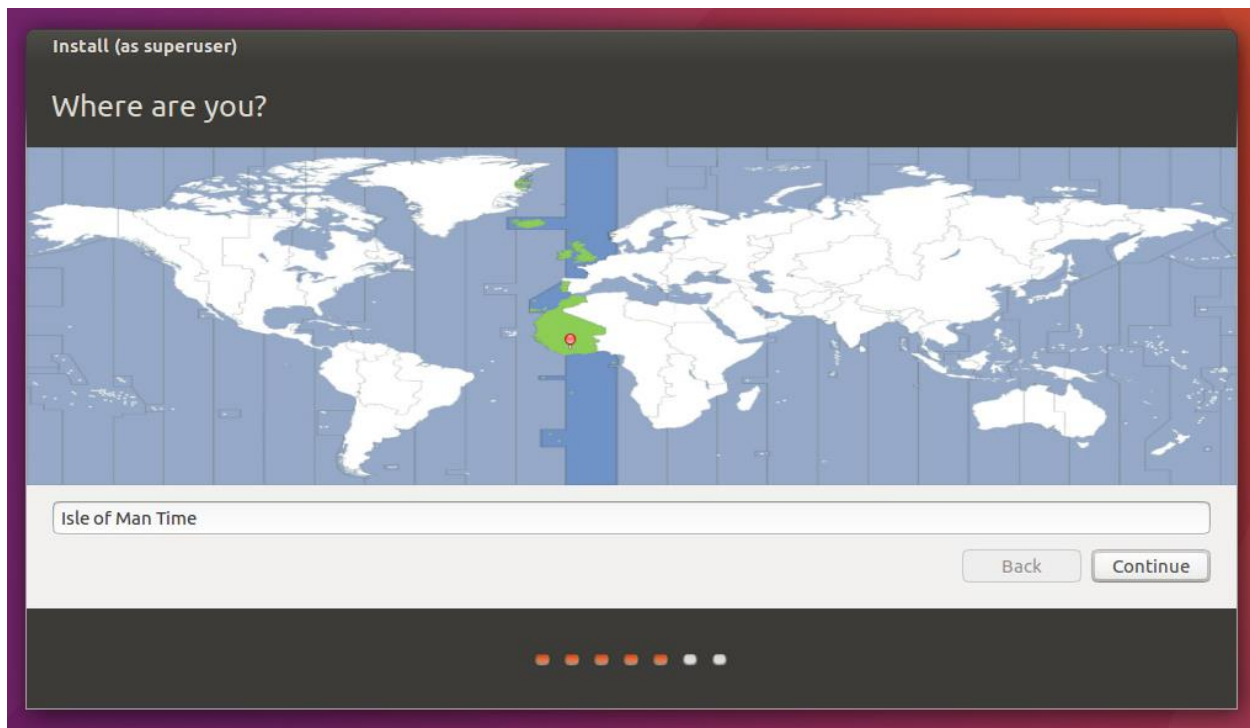
Depending on your previous selections, you can now verify that you have chosen the way in which you would like to install Ubuntu. The installation process will begin when you click the Install Now button.

Ubuntu needs about 4.5 GB to install, so add a few extra GB to allow for your files.



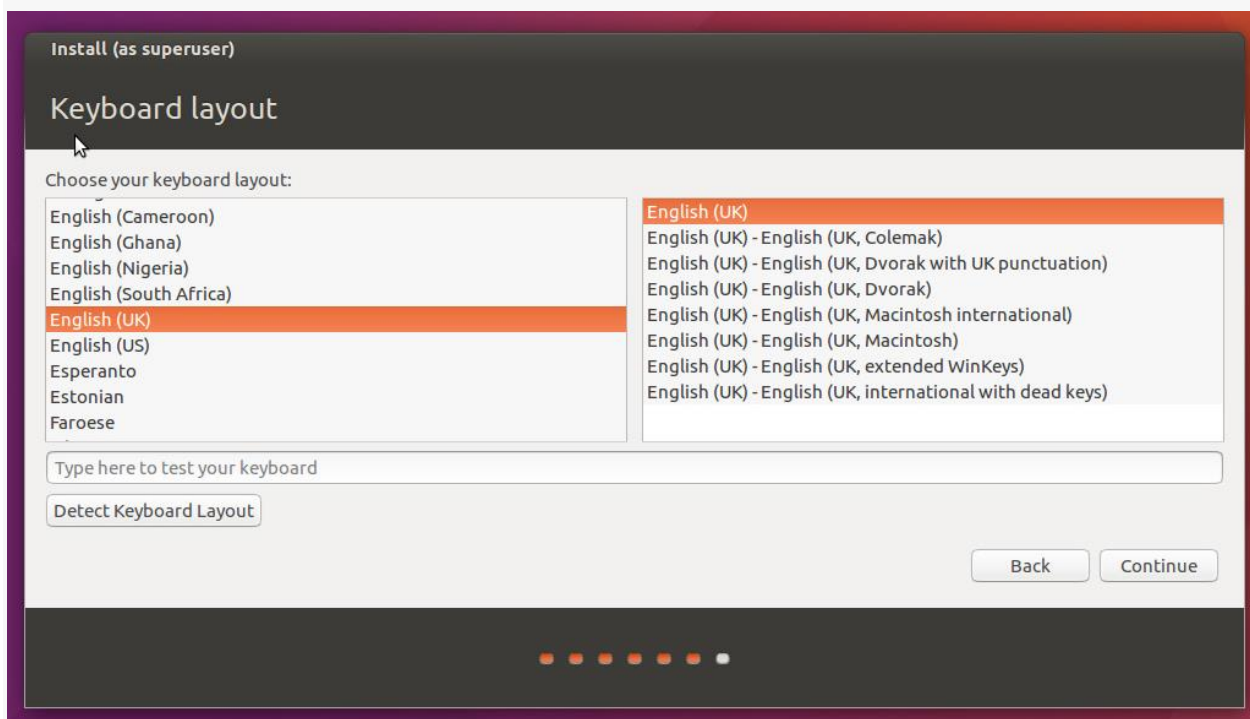
5. Select your location

If you are connected to the internet, this should be done automatically. Check your location is correct and click 'Forward' to proceed. If you're unsure of your time zone, type the name of the town you're in or click on the map and we'll help you find it.

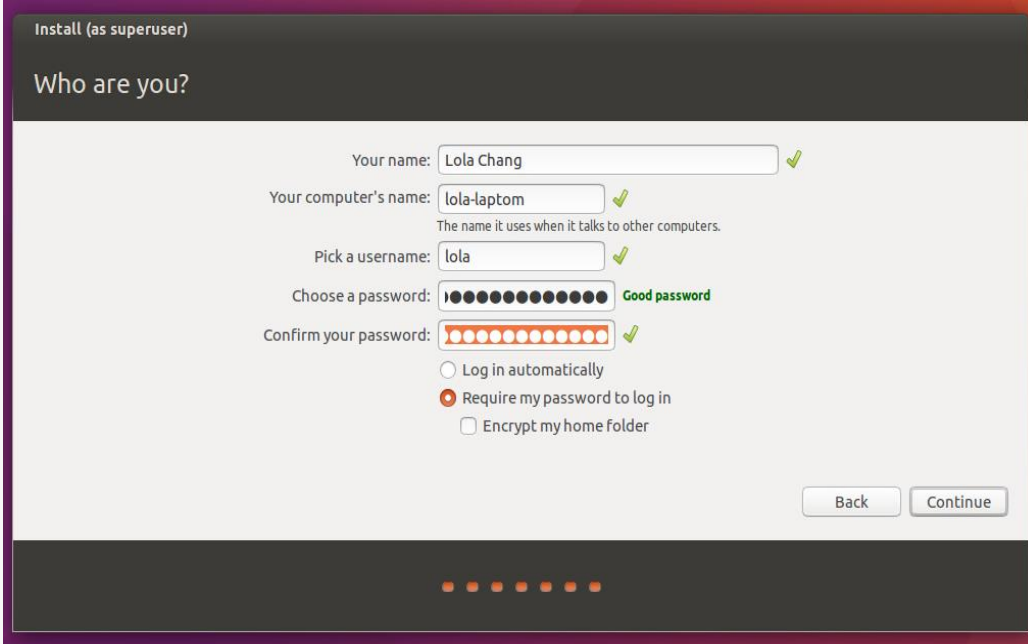


6. Select your preferred keyboard layout

Click on the language option you need. If you're not sure, click the 'Detect Keyboard Layout' button for help.



7. Enter your login and password details



The image shows the 'Who are you?' screen in the Ubuntu installer. The title bar says 'Install (as superuser)'. The main heading is 'Who are you?'. Below this, there are several input fields with green checkmarks indicating successful validation:

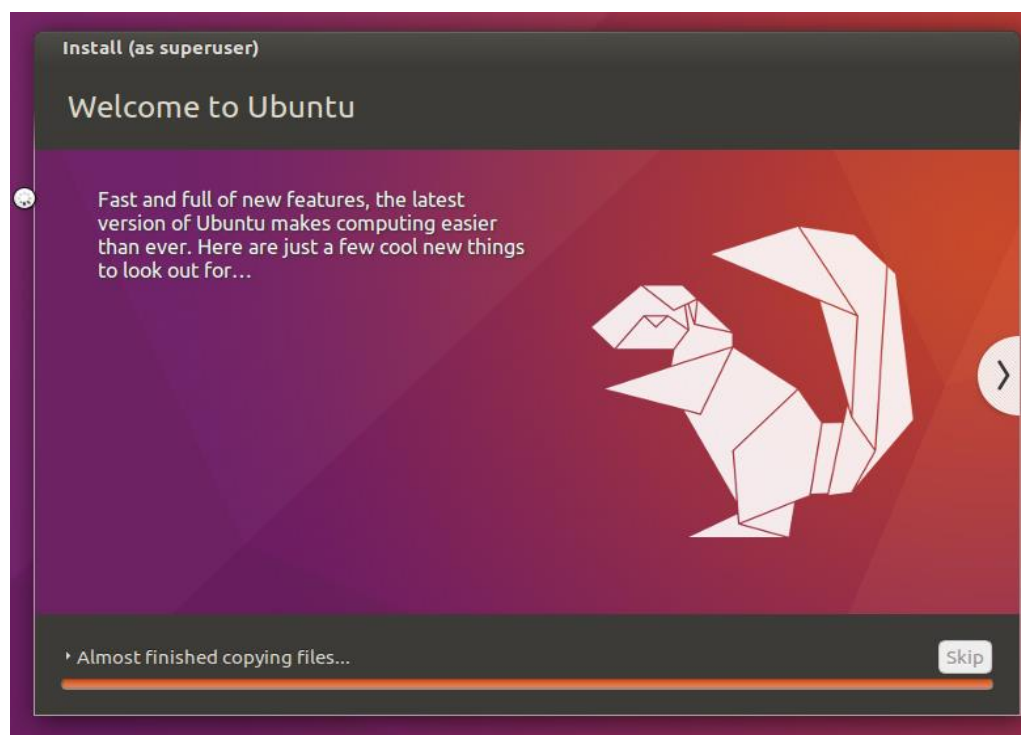
- Your name: Lola Chang ✓
- Your computer's name: lola-laptop ✓
The name it uses when it talks to other computers.
- Pick a username: lola ✓
- Choose a password: [masked] ✓ **Good password**
- Confirm your password: [masked] ✓

Below the password fields, there are three radio button options:

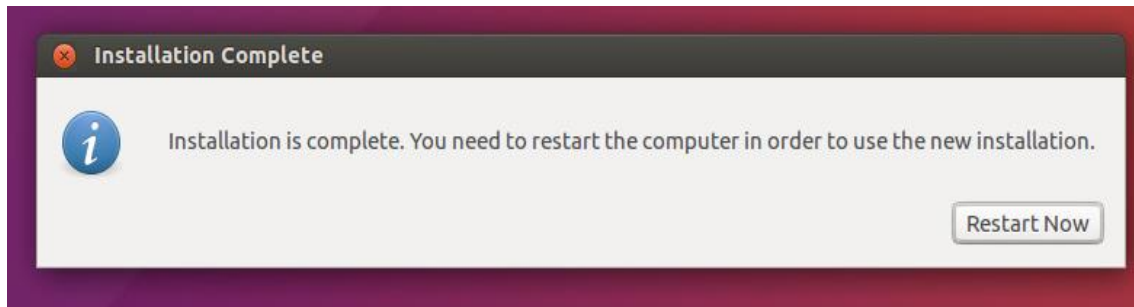
- ☐ Log in automatically
- ☒ Require my password to log in
- ☐ Encrypt my home folder

At the bottom right, there are 'Back' and 'Continue' buttons. At the very bottom, there is a progress bar with six orange dots, the first of which is filled.

8. Learn more about Ubuntu while the system installs...



9. Installation Complete



3. Linux Installation using Open Suse

This is just a brief description of openSUSE installation. For more thorough help see the official documentation.

Before Installation

Before starting there are a few things you should be aware of.

System Minimum Requirements

- CPU: AMD64 or Intel64 processor
- RAM: 1 GB physical RAM (2 GB recommended)
- Disk Space: 5,0 GB for a normal installation (more recommended)
- Sound and Graphics Card: Most modern cards are supported

Burning the ISOs to a DVD

When you burn the downloaded ISO files to a DVD it's important to remember to burn them as ISOs/images with your CD/DVD writer software, or the media won't be bootable.

BIOS Setup

If your computer won't boot from the DVD or USB media, check that the computer BIOS is configured to boot from CD/DVD or USB.

Dual Boot (openSUSE and MS Windows on the same computer)

Having openSUSE and MS Windows installed on the same computer is usually fairly simple if MS Windows was installed first. During installation openSUSE will detect MS Windows and the bootloader will display a menu on each startup letting you choose whether to boot openSUSE or MS Windows.

openSUSE needs to be installed on a separate partition/disk. It's recommended to free up space beforehand using a partitioning tool that you're familiar with. But you can also let the openSUSE installer resize your MS Windows partitions - it's strongly recommended to defragment the MS Windows partition before doing so.

Connect Network Cable and Turn on Peripherals

If you connect your network cable and turn on your printer and other peripherals before commencing the installation, there's a good chance of them being auto detected and configured.

The Installation Process

When you're ready, insert the DVD or USB stick and (re)start the computer.

This describes the installation of the 4.7 GB DVD ISO, as mentioned in the previous chapter there's also a live medium available that is not as well-tested, that installation is not described here, but it's quite similar.

Welcome



The first thing you'll see is this welcome screen.

Start Installation



Then you're presented with a menu.

Here you can select your desired language and a few other options, afterwards begin installation.

Language, Keyboard and Licence



The licence agreement is only to inform you of your rights. It doesn't require your acceptance, since it doesn't limit your use.

Check that language and keyboard layout are as desired.

Installation Options



Here you choose to add online repositories or include add-on products, usually will just click "Next". Online repositories can be added in the installed system later.

Partitioning



By default openSUSE will propose to create three new partitions / (root) for system files, /home/ for personal files of users and swap which is used as a supplement for RAM, similar to the page file in MS Windows.

Don't worry about all the subvolumes created, these are just technicalities of the Btrfs filesystem, and not "real" partitions, that normal users should need to worry about.

If you're performing a dual boot installation, pay extra attention, to make sure everything is as desired.

Note that Linux labels disks/partitions using the following scheme - *sda1* is first partition on the first disk, *sdb3* is the third

partition on the second disk, and so forth. Partitions that will be formatted are written in red text.

Clock and Time Zone



Set the timezone here.

If you have only GNU/Linux it's recommended to set the hardware clock to UTC, if you dual boot with MS Windows set it to local time.

Desktop Selection



Various different graphical user interfaces (desktop environments) exist for GNU/Linux. KDE is preselected and is preferred by about 70% of openSUSE users and is also the focus of this guide.

Under "Other" you can select LXDE, Xfce, minimal graphical environment (IceWM) and even a text based system which is useful for servers.

Create New User



Now it's time to create your user. Note that by default the root user (administrator) password will be the same as the password for the normal user.

If you want the added security of a separate root password, consider unchecking that checkbox. You may also want to consider disabling autologin to prevent people from easily accessing your system and data.

Installation Settings



Double check that everything is as desired - this is the point of no return!

Actual Installation

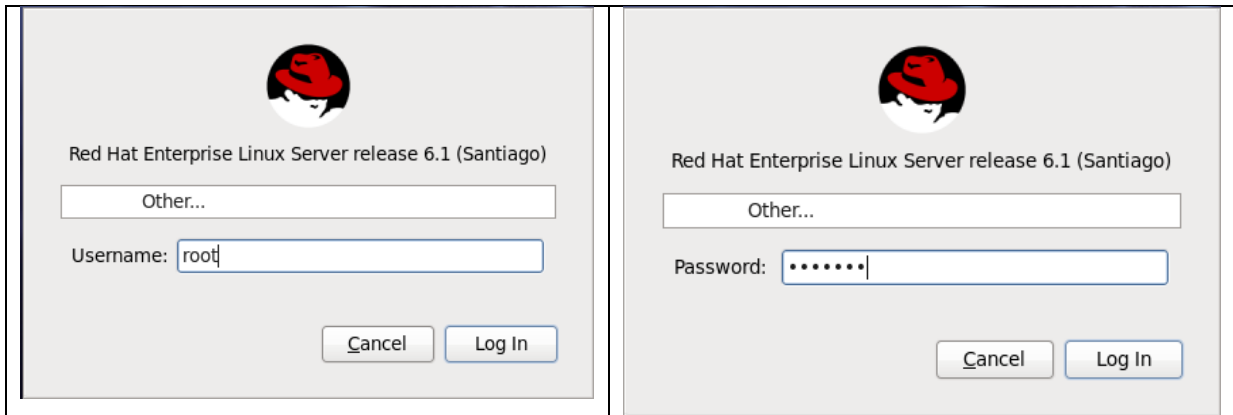


Now the actual installation is performed. When it's done the system will reboot and be ready to use.

Have a lot of fun with openSUSE!

4. Working with Linux Graphical User Interface

Step-1 We enter the super user name and password as below and click login.



Step-2:- We come across 3 icons as shown below.



For the moment we take a note that

1. Roots Home :- All file and folders that we create we shall do it here.
2. Computer :- To browse the files and folders and create files and folders. We shall be storing files and folders in the roots home directory.
3. Trash :- Files and folders that we delete will be in the trash. These can be restored from trash.

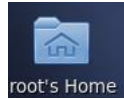
We shall be learning how to

1. Create files and delete them from root's Home directory
2. Creating folders and delete them root's home directory
3. Creating files in folders under root home directory.
4. Copying files from one folder to the other under root home directory.
5. Cut and paste files from one folder to the other under root home directory
6. Restore deleted files from the trash

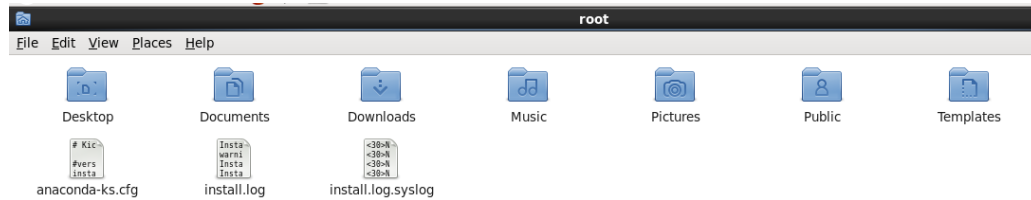
4.1 Creating a new file

Step-1

Double click on the root home directory



Step-2



Step-3

Click on File -> Create Document -> Empty File

Step-4

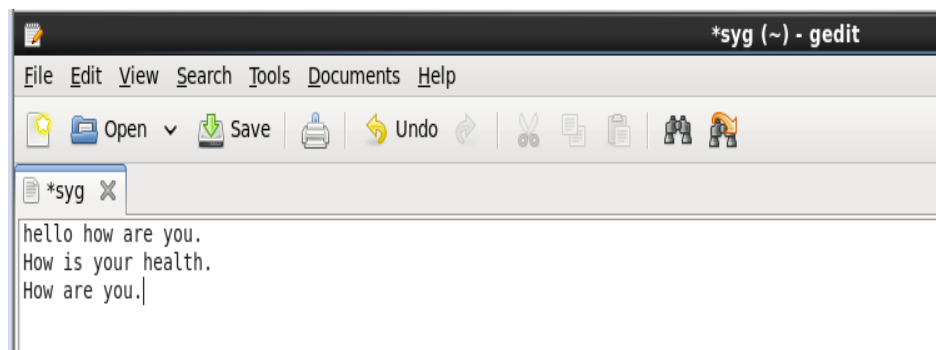


Step-5:- Give it a name as shown



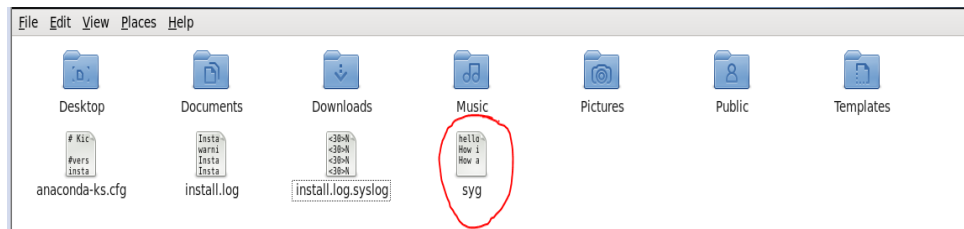
Step-6 :- Double click and enter the contents of the file as shown

below



Step-7 :- Click on the save button in green color as shown below.

Go to File ->Close . Go to File -> Quit.



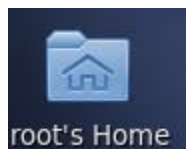
4.2 Working with files in Root Home directory

- Double click the file to open the file.
- Right click the file and
 - Click rename to rename the file.
 - Click cut to cut the file and paste it elsewhere.
 - Click move to trash to delete the file and move it to trash.
 - Click send to to send the file to external hard disk /dvd or pen drive.
 - Click properties
 - to find the size of the file.
 - And set permissions to read only to make the File read only
 - Open with to open with another application
- Click file ->create folder to create folder.

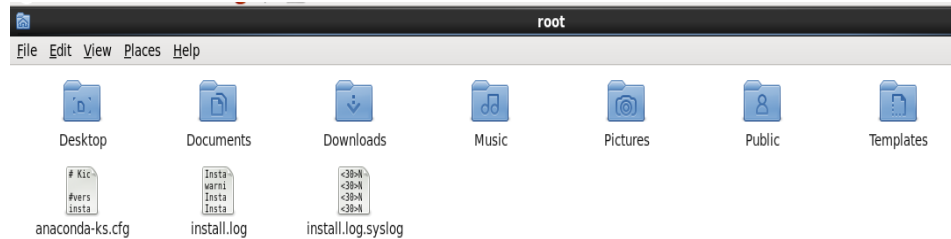
4.3 Working with folders in Root Home directory

Step-1

Double click on the root home directory



Step-2



Step-3

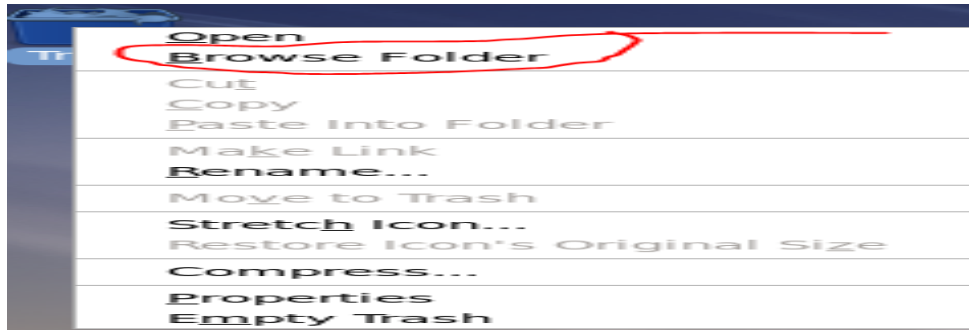
- Click on File -> Create Folder to create a folder
- Double click the folder to open the folder.
- Right click the folder and
 - Click rename to rename the folder.
 - Click cut to cut the folder and paste it elsewhere.
 - Click move to trash to delete the folder and move it to trash.
 - Click send to to send the folder to external hard disk /dvd or pen drive.
 - Click properties
 - To find the size of the folder.
 - Set permissions to read only to make the Folder read only
 - Open with to open with another application
- Click file ->create folder to create folder.

4.4 Working with trash

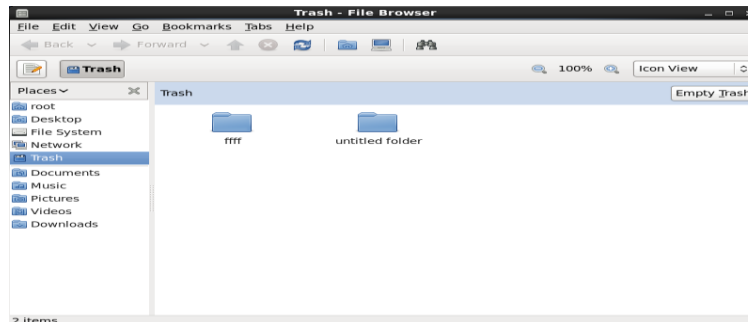


To restore the files and folders from the trash double click trash and click restore to restore deleted files.

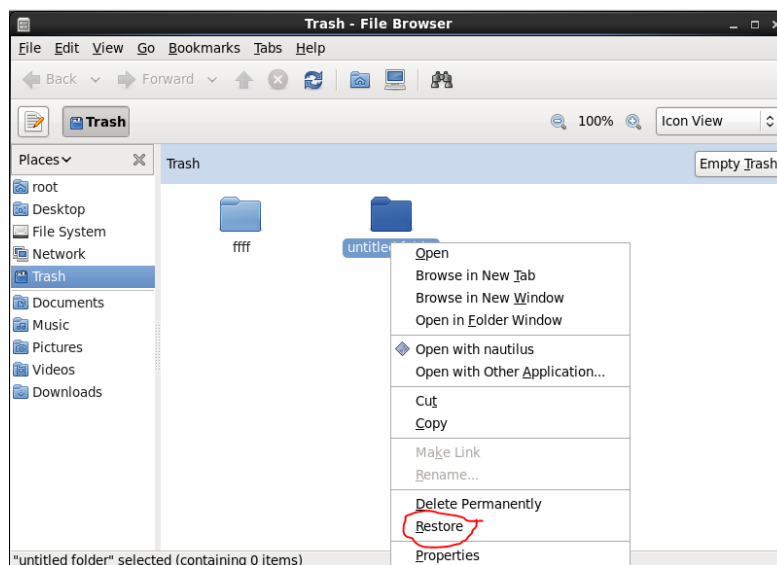
Step-1 :- Right click on the Trash



Step-2

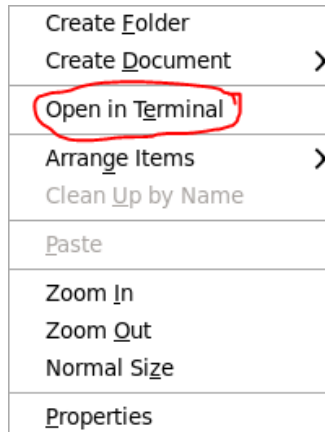


Step-3 : - Click on the restore button to restore the folder from where it was deleted. If delete permanently is clicked then the file is deleted forever.

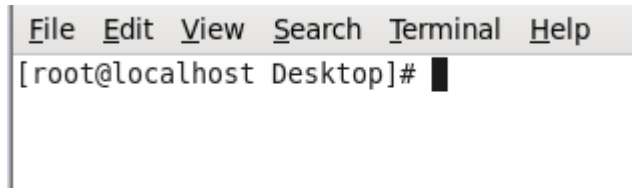


5. Working with terminal mode

To get into the terminal mode right click being in the graphical user interface



Click on open in terminal mode to open Linux in terminal mode as shown below.



6. Basic Linux commands used in terminal Mode

Basic Linux commands.

Ls	It will display the list contents in a folder
clear	It will clear the screen
mkdir	It creates a new directory
cat >	(new file name) It will create a new file , for saving the file you have to press ctrl + d
cat	(existing file name)It will display the contents of a file
Rm	(file name) It will delete a file
rm -rf	(dir name). It will delete a directory
mv	(old file name) (new file name).It will rename a file (old directory name) (new directory name).It will rename a directory
mv	(source file name)(target directory name).It will move the file from one location to the other.
touch	(new file name) It will create an empty file
date	It will display the current system date
man	(command) it will display the mnuals and syntax of the command.
halt	To shut down the Linux environment

6.1 Steps to create a file in root home folder using VIM

1. Steps to create a file in root home folder.

Step-1:

```
File Edit View Search Terminal Help
[root@localhost Desktop]#
```

#	means super user
\$	means normal user

Step-2:

Click `cd /`

This takes us to the root directory

The root directory is the top level directory .It is the parent directory of all the directories.

Step-3

Click `cd ~` or `cd /root` go to root home directory

```
File Edit View Search Terminal Help
[root@localhost /]# cd ~
[root@localhost ~]#
```

Step-4

To create a file type the following command

`vim filename` as shown below

```
File Edit View Search Terminal Help
[root@localhost ~]# vim shanu
```

Step-5



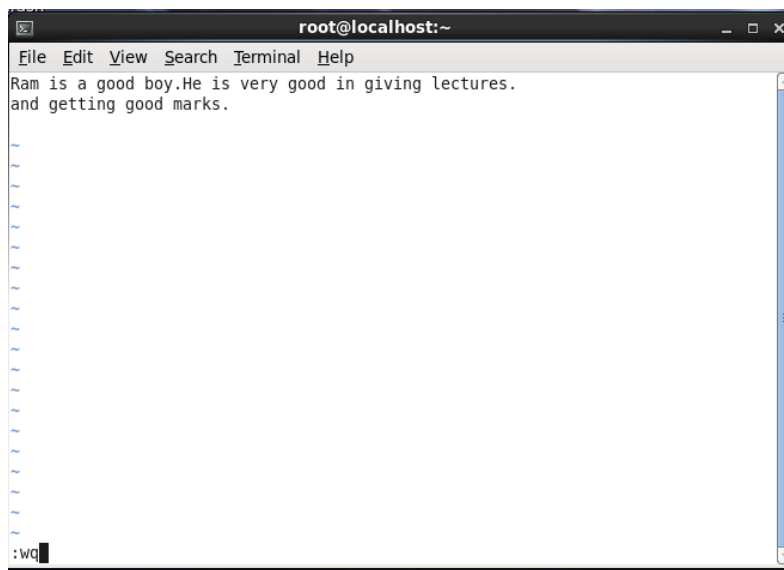
Step-6 :- Press the insert button



Step-7

Now it is time to save the file

Press esc key followed by :wq which means write and quit



Press the enter key.Now the file is written.

6.1.1 VIM commands

<u>Cursor management in VIM</u>	
H	Left arrow
L	Right arrow
K	Up arrow
J	Down arrow
<u>Escape mode commands</u>	
Esc +:w	To save changes
Esc +:q	To quit
Esc +:wq	To save and quit
Esc +:wq!	To save and quit forcefully
Esc +:w!	To save forcefully
Esc +:x	To save and quit

Step-8 :- To check whether the file exists or not press the ls command which is list files and folders. Below those in blue colour are folders. The one in red is a compressed file . those in black are files.

```
File Edit View Search Terminal Help
[root@localhost ~]# vim shanu
[root@localhost ~]# ls
anaconda-ks.cfg  Downloads          kjui  Pictures  syg  syg.tar.gz
Desktop          install.log        mmm   Public    syg~  Templates
Documents        install.log.syslog Music  shanu     syg (2) Videos
[root@localhost ~]#
```

6.2 Checking the contents of a file

Step-9: to check the file contents of shanu type cat shanu

```
File Edit View Search Terminal Help
[root@localhost ~]# cat shanu
Ram is a good boy.He is very good in giving lectures.
and getting good marks.

[root@localhost ~]#
```

6.3 Create a new file using cat command

The cat command can also be used to create a new file

Step-1

The syntax is \$cat > new filename

```
[root@localhost ~]# cat > sm
hello how are you and how is
your health.Its along time
we havent talked to each other.
```

To save the contents after using the cat command press ctrl +d

Step-2

To save the contents after using the cat command press ctrl +d

```
File Edit View Search Terminal Help
[root@localhost ~]# cat > sm
hello how are you and how is
your health.Its along time
we havent talked to each other.
[root@localhost ~]#
```

6.4 Delete a file rm command

The rm command is used to remove or delete a file

Syntax rm filename

```
File Edit View Search Terminal Help
[root@localhost ~]# rm mmm
rm: remove regular file `mmm'? y
[root@localhost ~]#
```

6.5 Creating a folder /Directory mkdir command

The mkdir command is used to create a directory.

Syntax

mkdir fish

```
[root@localhost ~]# mkdir fish
[root@localhost ~]# ls
anaconda-ks.cfg  fish  Music  shanu  syg (2)
Desktop          install.log  Pictures  sm      syg.tar.gz
Documents        install.log.syslog  Public  syg     Templates
Downloads        kjui         ram      syg~   Videos
[root@localhost ~]#
```

6.6 Delete a folder /directory

rm -rf command

The rm -rf command is used to delete a folder

```
File Edit View Search Terminal Help
[root@localhost ~]# rm -rf fish
[root@localhost ~]#
```

6.7 Rename a folder /directory

```
[root@localhost ~]# rm -rf fish
[root@localhost ~]# ls
anaconda-ks.cfg  Downloads      kjui    Public  sm    syg (2)  Videos
Desktop          install.log    Music   ram     syg    syg.tar.gz
Documents        install.log.syslog  Pictures shanu   syg~   Templates
[root@localhost ~]#
```

mv command to rename a file.

The mv command is used to rename a file

Syntax mv old filename new filename

```
File Edit View Search Terminal Help
[root@localhost ~]# mv ram shyam
[root@localhost ~]# ls
anaconda-ks.cfg  Documents  install.log    kjui  Pictures  shanu  sm  syg~  syg.tar.gz  Videos
Desktop          Downloads  install.log.syslog  Music  Public   shyam  syg  syg (2)  Templates
[root@localhost ~]#
```

6.8 Move a file to a folder /directory

mv command to move a file to a directory

```
[root@localhost ~]# cd ..
[root@localhost ~]# cd ~
[root@localhost ~]# ls
anaconda-ks.cfg  Downloads      kjui    Public  sm    syg (2)  Videos
Desktop          install.log    Music   shanu   syg    syg.tar.gz
Documents        install.log.syslog  Pictures shyam   syg~   Templates
[root@localhost ~]# mkdir fish
[root@localhost ~]# mv shyam fish
[root@localhost ~]# cd fish
[root@localhost fish]# ls
shyam
[root@localhost fish]#
```

6.9 Copy a file to a folder /directory
 cp command to copy a file to a directory

```

File Edit View Search Terminal Help
[root@localhost Desktop]# cd ..
[root@localhost ~]# cd ~
[root@localhost ~]# ls
anaconda-ks.cfg  fish          Music         sm          syg.tar.gz
Desktop          install.log   Pictures      syg         Templates
Documents        install.log.syslog Public        syg~        Videos
Downloads        kjui
[root@localhost ~]# touch hh
[root@localhost ~]# cp hh fish
[root@localhost ~]# cd fish
[root@localhost fish]# ls
hh mmmm myself shyam
[root@localhost fish]#

```

Above a file is copied to a folder/directory.

6.10 Copy a folder to a folder /directory
 cp -r folder name ~/foldername

~ stands for root home folder

```

File Edit View Search Terminal Help
[root@localhost ~]# ls
anaconda-ks.cfg  fish          kjui          rr          syg~          Videos
Desktop          hh            Music         shanu       syg (2)
Documents        install.log   Pictures      sm          syg.tar.gz
Downloads        install.log.syslog Public        syg         Templates
[root@localhost ~]# cp -r rr ~/fish
[root@localhost ~]# cd fish
[root@localhost fish]# ls
hh mmmm myself rr shyam
[root@localhost fish]#

```

6.11 Hide a file or a folder /directory

To hide a File rename the file to “.”+file name

To hide a Folder rename the Folder to “.”+Folder name


```
[root@localhost fish]# mv hh .hh
[root@localhost fish]# ls
mmmm myself rr shyam
[root@localhost fish]#
```

Above the file hh is hidden

6.12 View hidden files or folders

```
[root@localhost fish]# mv hh .hh
[root@localhost fish]# ls -a
. .. .hh mmmm myself rr shyam
[root@localhost fish]#
```

Above shows the hidden file .hh

```
[root@localhost ~]# mv fish .fish
[root@localhost ~]# ls
anaconda-ks.cfg hh Music shanu syg (2)
Desktop install.log Pictures sm syg.tar.gz
Documents install.log.syslog Public syg Templates
Downloads kjui rr syg~ Videos
[root@localhost ~]# ls -a
. Downloads .ICEauthority shanu
.. .esd_auth install.log sm
anaconda-ks.cfg .fish install.log.syslog .spice-vdagent
.bash_history .gconf kjui .ssh
.bash_logout .gconfd .local syg
.bash_profile .gnome2 Music syg~
.bashrc .gnome2_private .nautilus syg (2)
.cache .gnote Pictures syg.tar.gz
.config .gnupg Public .tcshrc
.cshrc .gststreamer-0.10 .pulse Templates
.dbus .gtk-bookmarks .pulse-cookie .thumbnails
Desktop .gvfs .recently-used.xbel Videos
Documents hh rr .viminfo
[root@localhost ~]#
```

Above example shows the hidden folder .fish

6.13 Unhide hidden files or folders

To unhide the hidden file/folder rename the .file/.folder name to filename/foldername

```
[root@localhost ~]# mv .fish fish
[root@localhost ~]# ls
anaconda-ks.cfg  fish          kjui          rr          syg~          Videos
Desktop          hh            Music         shanu       syg (2)
Documents        install.log   Pictures      sm          syg.tar.gz
Downloads        install.log.syslog  Public       syg         Templates
[root@localhost ~]# █
```

6.14 Creating blank files

touch command

The \$touch command is used create a blank file.

Syntax touch filename

```
[root@localhost fish]# ls
shyam
[root@localhost fish]# touch myself
[root@localhost fish]# ls
myself shyam
[root@localhost fish]# █
```

6.15 Finding the current date

date command is used to find todays date

```
File Edit View Search Terminal Help
[root@localhost fish]# date
Sun Jun 26 23:49:26 PDT 2016
[root@localhost fish]# █
```

6.16 man command

\$man command name

\$man command is used to find the syntax of the command.

Syntax :- man ls

Step-1

man ls

Step-2

The output is as shown below

NAME

ls - list directory contents

SYNOPSIS

ls [OPTION]... [FILE]...

DESCRIPTION

List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort.

Mandatory arguments to long options are mandatory for short options too.

-a, --all

do not ignore entries starting with .

-A, --almost-all

do not list implied . and ..

--author

with -l, print the author of each file

-b, --escape

print octal escapes for nongraphic characters

--block-size=SIZE

use SIZE-byte blocks. See SIZE format below

-B, --ignore-backups

do not list implied entries ending with ~

-c with -lt: sort by, and show, ctime (time of last modification of file status information)
with -l: show ctime and sort by name

otherwise: sort by ctime

-C list entries by columns

--color[=WHEN]

colorize the output. WHEN defaults to 'always' or can be 'never' or 'auto'. More info below

:

[root@localhost Desktop]#

Shut down the Linux

To shut down the Linux system use the command halt

Printing in Linux

The printing command in Linux is

cat thesis.txt > /dev/lp

7. User and group management

and /

Listing the users :- To list the users the command is # cat /etc/passwd

Creating a new user :- # adduser username

Creating a password to the username created :- #passwd username

This command would ask the user to enter the new password as shown below

#new password

And confirm password as shown below

#confirm password

Changing the password of a user

#passwd username

```
[root@localhost Desktop]# passwd gopal
Changing password for user gopal.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost Desktop]#
```

Deleting A User

#userdel username

```
[root@localhost Desktop]# userdel ram
```

#userdel-r username

Locking A User

usermod -l username

Unlocking A User

usermod -u username

Rename A User

usermod -l newusername oldusername

Creating a group

#groupadd groupname

Example

#groupadd admin

Adding A Single User To A Group

#usermod -G groupname username

Removing A Single User To A Group

#gpasswd -a username group

Adding multiple users to a group

#gpasswd -M user1,user2,user3 groupname

Listing all users in a group

#grep groupname /etc/group

Removing Users From A Group

#gpasswd -d username1,username2,groupname

Renaming A Group

#groupmod -n newgroupname oldgroupname

Make a user as an administrator

#gpasswd -A username groupname

List which group the user belongs

groups username

Delete A Group

groupdel groupname

8. Working with Permissions

The permission is applied at 3 levels

- 1) Owner/user level
- 2) Group level
- 3) Other users

Reading -4

Writing – 2

Execute- 1

No permission – 0

Since we are working with a single user

Syntax :- `chmod ugo filename`

1) `chmod 400 filename` makes the file read only to the owner.

2) Making the file read and write only for the owner as

`chmod 600 filename` as $4 + 2 = 6$

3) Making the file read, write and execute to the owner

`chmod 700 filename` as $4 + 2 + 1 = 7$