Kubuntu Installation:

Kubuntu is a user friendly operating system based on KDE, the K Desktop Environment. With a predictable 6 month release cycle and part of the Ubuntu project, Kubuntu is the GNU/Linux distribution for everyone. Kubuntu is an entirely open source operating system built around the Linux kernel. The Kubuntu community is built around the ideals enshrined in the Ubuntu Philosophy: that software should be available free of charge, that software tools should be usable by people in their local language and despite any disabilities, and that people should have the freedom to customize and alter their software in whatever way they see fit.

You can download Kunbuntu cd from the the following website.

http://www.kubuntu.org/download.php

Afte downloading .iso image from the download link you need to burn a CD after that you need to boot from your kubuntu cd you should see the following screen in this screen select install kubuntu and press enter.





Now you can see on next screen kubuntu cd is loading

Kubuntu Loading

Now your next screen is kubuntu initializing





Kubuntu Initializing you can see the following screen Kubuntu session is restoring

Kubuntu session restoring

After loading complete desktop you can see the screen like below



Now if you want to install kubuntu just click on install icon on your desktop.Now you need to select you installation language in this i have selected english and press continue

Wencome Image of the install of the	b .	Install		
on this computer so you can run the system at full speed and without the CD. Answering the questions should only take a few minutes. Please choose the language used for the installation process. This language will be the default language for the final system. Language Bahasa Indonesia Bosanski Català Cymraeg Dansk Deutsch Eesti Español Esperanto Euskaraz Français Galego Hrvatski Icelandic telandic	Welcome		🖒 kubunt	:U
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Step 1 of 6 Cancel	l	Italiano		
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Kubuntu language selection

Next step is you need to select your country and time zone in this i have selected uk as country and london time zone and press continue



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Kubuntu keyboad language selection

Now you need to create user and assign the hostname for your computer and press continue

Install	
Who are you?	🐗 kubuntu
What is your name?	
What name do you want to use to log in?	
If more than one person will use this computer, you can set up multip	le accounts after installation.
Choose a password to keep your account safe.	
Enter the same password twice, so that it can be checked for typing o	
What is the name of this computer?	mors.
This name will be used if you make the computer visible to others on a	i network.
Step 4 of 6 < <u>G</u> o Bac	k <u>C</u> ontinue > C <u>a</u> ncel

Kubuntu create usear and hostname

Here you can see Hard Disks initializing

3	Install		
Select a disk		🔥 kubuntu	
You can have the installer auton disks. Alternatively, you can part	natically create space in various ways on an ition the disks manually.	y one of the following hard	
	installer Concel		
Step 5 of 6	< <u>G</u> o Back	Continue > Cancel	

Kubuntu Initializing disks

Now you need to select how you want to partition your hard disk.Options available for this is erase complete hard disk or manual edit the partition table i have selected second option and created the partitions and press continue

9	Install		×	Close
Prepare disk space		🗳 ku	buntu	
How do you want to partition the disk? <u>E</u> rase entire disk: SCSII (0,0,0) (sda <u>Manually edit partition table</u>) - 8.6 GB VMware, VMware Virtual	s		
New partition size:			0%	
Step 5 of 6	< <u>G</u> o Back	<u>C</u> ontinue >	C <u>a</u> ncel	

Kubuntu partiton table selection

It will show you the summary of your kubuntu installation and press continue



Kubuntu summary of installation

the next screen is creating file system for your partitions progress

	Install	لكالكالك	
Ready to install	4	🗳 kubuntu	
Your new operating system will now be Details	e installed with the following settings:		
Language: English Keyboard layout: uk Name: kubuntu Login name: kubuntu Location: Europe/London Partitioning:			
If you continue, the changes liste	e installer	? • ×	
Otherwise, you will be able to mak	Creating ext3 file system for / in partition #1	of SCSI1 (0,0,0) (sda)	
WARNING: This will destroy all data	48%		
well as on the partitions that are		Cancel	
The following partitions are going partition #1 of /dev/sda as ext3 partition #5 of /dev/sda as swap			

Kubuntu creating file system

It is copying all the required file for your installation

Ready to install	3	😋 kubuntu	
Your new operating system will now be installed Details	with the following settings:		
Language: English Keyboard layout: uk Name: kubuntu Location: Europe/London Partitioning:			
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Otherwise, you will be able to mak	Copying files (4:17 remair	ning)	
WARNING: This will destroy all data			
well as on the partitions that are		Cancel	
The following partitions are going partition #1 of /dev/sda as ext3			
partition #5 of /dev/sda as swap			
·			
ep 6 of 6		Install C <u>a</u> ncel	

Kubuntu copying files

Loading required modules in progress

Language: English Keyboard layout: uk Name: kubuntu Location: Europe/London Partitioning: If you continue, the changes liste Otherwise, you will be able to mak WARNING: This will destroy all data well as on the partitions that are The following partitions are going partition #1 of /dev/sda as swap	Every Snapshot
The following partitions are going Capture mode: F partition #1 of /dev/sda as ext3 partition #5 of /dev/sda as swap Snapshot gelay: No	the parameters are and a good 2.3.
tep 6 of 6	< Go Back Install Cancel

Kubuntu loading modules

This is your final step of kubuntu installation you can see installation completed message now click on reboot button to reboot your new kubuntu installation.

🕞 🦳 🧖 Debian ac	lmin: Click image to close this window - Konqueror		3 _ A X
8	Install		
Ready to ins		kubuntu	
Your new operating Details	g system will now be installed with the following settings:		
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Step 6 of 6	< <u>Go</u> Back	C <u>a</u> ncel	

Kubuntu Installation Completed

Linux File System Types

Linux supports many filesystem types such as ext, ext2, ext3, xia, minix, umsdos, msdos, vfat, proc, smb, ncp, iso9660, sysv, hpfs, affs and ufs, reiserfs and no doubt, over time more will be added. But here we will discuss a few important of them.

> <u>EXT</u>

The Extended File System, ext, was introduced in April, 1992. With a maximum partition size of 2GB and a maximum file name size of 255 characters, it removed the two biggest minix limitations. However, there still was no support for the separate access, inode modification and data modification timestamps. Also, its use of linked lists to keep track of free blocks and inodes caused thelists to become unsorted and the filesystem to become fragmerted.

> <u>EXT2</u>

The Second Extended File System (ext2) was released in January, 1993. It was a rewrite of ext which features (1) improved algorithms that greatly improved its speed, (2) additional date stamps (such as date of last access, date of last inode modification and date of last data modification) and (3) the ability to track the state of the filesystem. Ext2 maintains a special field in the *superblock* that indicates the status of the filesystem as either *clean* or *dirty*. A dirty filesystem will trigger a utility to scan the filesystem for errors. Ext2 also features support for a maximum file size of 4TB (1 terabyte is 1024 gigabytes). Consequently, it has completely superseded ext, support for which has been removed from the Linux kernel.

Ext2 is the most portable of the native Linux filesystems because drivers and other tools exist that allow accessing ext2 data from a number of other operating systems. However, as useful as these tools are, most of them have limitations, such as being access utilities rather than true drivers, not working with the most recent versions of ext2, not being able to write to ext2 or posing a risk of causing filesystem corruption when writing to ext2.

> Journaling Filesystems

The lack of a journaling filesystem was often cited as one of the major factors holding back the widespread adoption of Linux at the enterprise level. However, this objection is no longer valid, as there are now four such filesystems from which to choose.

Journaling filesystems offer several important advantages over static filesystems, such as ext2. In particular, if the system is halted without a proper shutdown, they guarantee consistency of the data and eliminate the need for a long and complex filesystem check during rebooting. The term *journaling* derives its name from the fact that a special file called a *journal* is used to keep track of the data that has been written to the hard disk.

In the case of conventional filesystems, disk checks during rebooting after a power failure or other system crash can take many minutes, or even hours for large hard disk drives with capacities of hundreds of gigabytes. Moreover, if an inconsistency in the data is found, it is sometimes necessary for human intervention in order to answer complicated questions about how to fix certain filesystem problems. Such downtime can be very costly with big systems

used by large organizations.

In the case of a journaling filesystem, if power supply to the computer is suddenly interrupted, a given set of updates will have either been fully *committed* to the filesystem (i.e., written to the hard disk), in which case there is not a problem, and the filesystem can be used immediately, or the updates will have been marked as not yet fully committed, in which case the file system driver can read the journal and fix any inconsistencies that occurred. This is far quicker than a scan of the entire hard disk, and it guarantees that the structure of the filesystem is always self-consistent. With a journaling filesystem, a computer can usually be rebooted in just a few seconds after a system crash, and although some data might be lost, at least it will not take many minutes or hours to discover this fact

> <u>EXT3</u>

Ext3 has been integrated into the Linux kernel since version 2.4.16 and has become the default filesystem on Red Hat and some other distributions. It is basically an extension of ext2 to which a journaling capability has been added, and it provides the same high degree of reliability because of the exhaustively field-proven nature of its underlying ext2. Also featured is the ability for ext2 partitions to be converted to ext3 and vice-versa without any need for backing up the data and repartitioning. If necessary, an ext3 partition can even be mounted by an older kernel that has no ext3 support; this is because it would be seen as just another normal ext2 partition and the journal would be ignored.

<u>ReiserFS</u>

ReiserFS, developed by Hans Reiser and others, was actually the first journaling filesystem added to the Linux kernel. As was the case with ext2, it was designed from the ground up for use in Linux. However, unlike ext3, it was also designed from the ground up as a journaling filesystem rather than as an add-on to an existing filesystem, and thus it is widely considered to be the most advanced of the native Linux journaling filesystems. Features include high speed, excellent stability and the ability to pack small files into less disk space than is possible with many other filesystems.

A new version of ReiserFS, designated Reiser4, was also released. It is a complete rewrite from version 3 and is said to result in major improvements in performance, including higher speeds, the ability to accommodate more CPUs, built-in encryption and ease of customization.

> <u>JFS</u>

JFS was originally developed by IBM in the mid-1990s for its AIX Unix operating system, and it was later ported to the company's OS/2 cperating system. IBM subsequently changed the licensing of the OS/2 implementation to open source, which led to its support on Linux. JFS is currently used primarily on IBM enterprise servers, and it is also a good choice for systems that multiboot Linux and OS/2.

> <u>XFS</u>

XFS was developed in the mid-1990s by Silicon Graphics (SGI) for its 64 bit IRIX Unix servers. These servers were designed with advanced graphics processing in mind, and they feature the ability to accommodate huge files sizes. The company likewise converted XFS to open source, after which it was also adopted by Linux. Because it is

a 64-bit filesystem, XFS features size limitations in the millions of terabytes (in contrast to the still generous 4TB limit of ext2).