Installing Ubuntu for Beginners

Installing ubuntu, though a lot easier than installing windows, does require some basic understanding of partitions etc to proceed. However, the 'Live CD' concept gives you a graphical user interface from which you do the installation, which makes it quite easy.
Also, this one installation (which will take about 30 minutes), includes the operating sysytem, all drivers and all basic software. A typical windows installation will take about 45 mins, then about 15 minutes to load all the drivers, and then a further hour at least to load software (MS office, photoshop, pdf reader, antivirus etc.)
This guide should also work for people who have never installed windows.

Getting ubuntu:

Download from the internet:

Go to www.ubuntu.com -> Get ubuntu -> Download (or http://www.ubuntu.com/getubuntu/download)

- You will havet to choose whether you want a Desktop (for most people) or Server Edition.
- You will also have to choose whether you want one for a 32 bit or 64 bit processor. Most older machines are 32 bit, but newer pentium dual core machines and AMD 64 bit dual core processors are 64 bit.

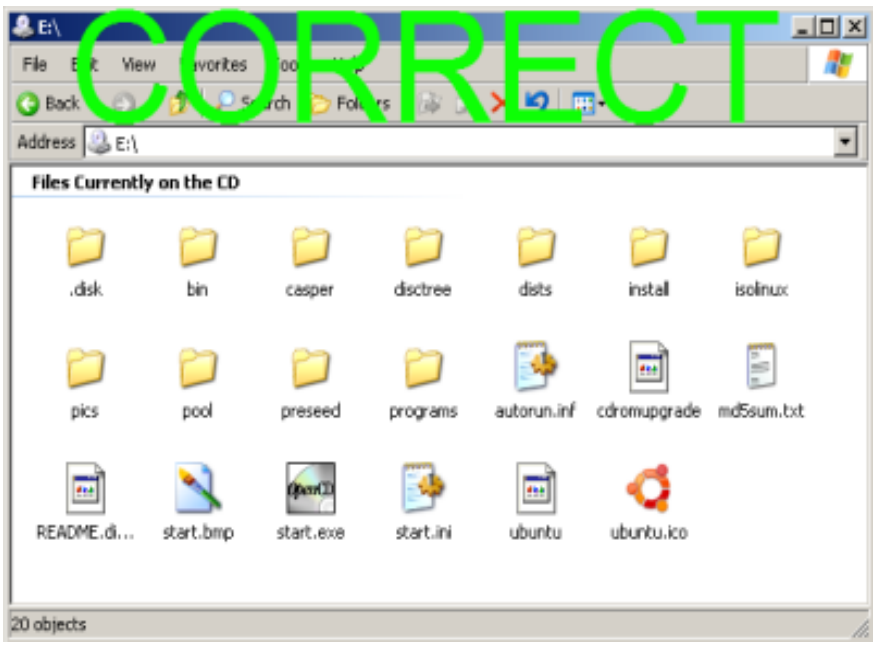
If you want to download via a bit torrent client you will have to go to Get Ubuntu -> Download then click on 'complete list of download location' at the bottom, then scroll down to the bottom of that page and click on '8.04 release page' (or http://releases.ubuntu.com/8.04/)
At the bottom of that page you should click on ubuntu-8.04.1-desktop-i386.iso.torrent or ubuntu-8.04.1-desktop-amd64.iso.torrent depending on what architechture you have.

Request a free CD from canonical:

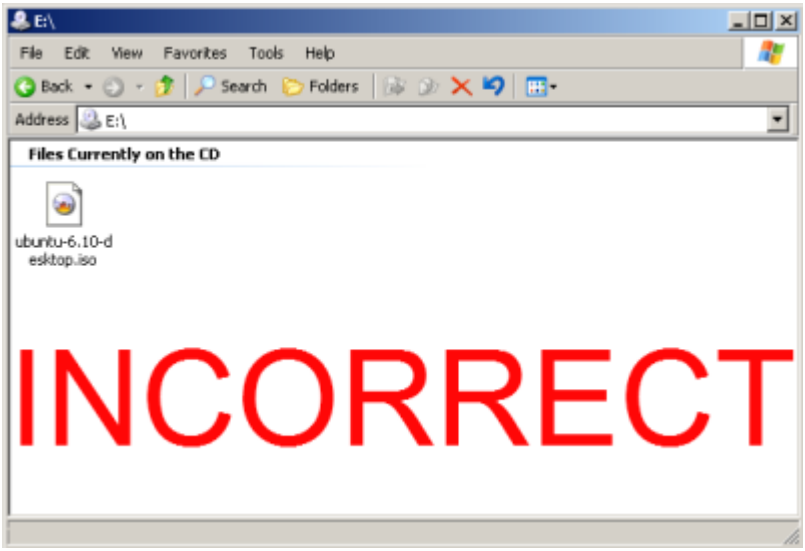
You should be registered with launchpad for this (new signup will take two minutes though). Go to Get Ubuntu-> Request free CD. This has to come from the US of A though, and will take a long time (6-10 weeks).
You could also buy a CD from AWARE consultants (http://www.aware.co.in/)Bangalore (this costs Rs. 200 per CD for their costs), but will also take about a week.
If none of these works for you, you could write to me and I'll send you a copy!

Burning the ISO image to disk:

The file you download will be an .iso image of a CD. This is basically a way of putting a lot of information together in one file, rather than having lots of files to download. You can write this onto a CD using any CD burning software like nero etc, by selecting the 'burn image to disc' option. Its important to note that you can't just copy and paste the ISO image onto the CD. You have to use some software to write the image to disc.
When you're finished and you put the CD in it should look like:



And not like:



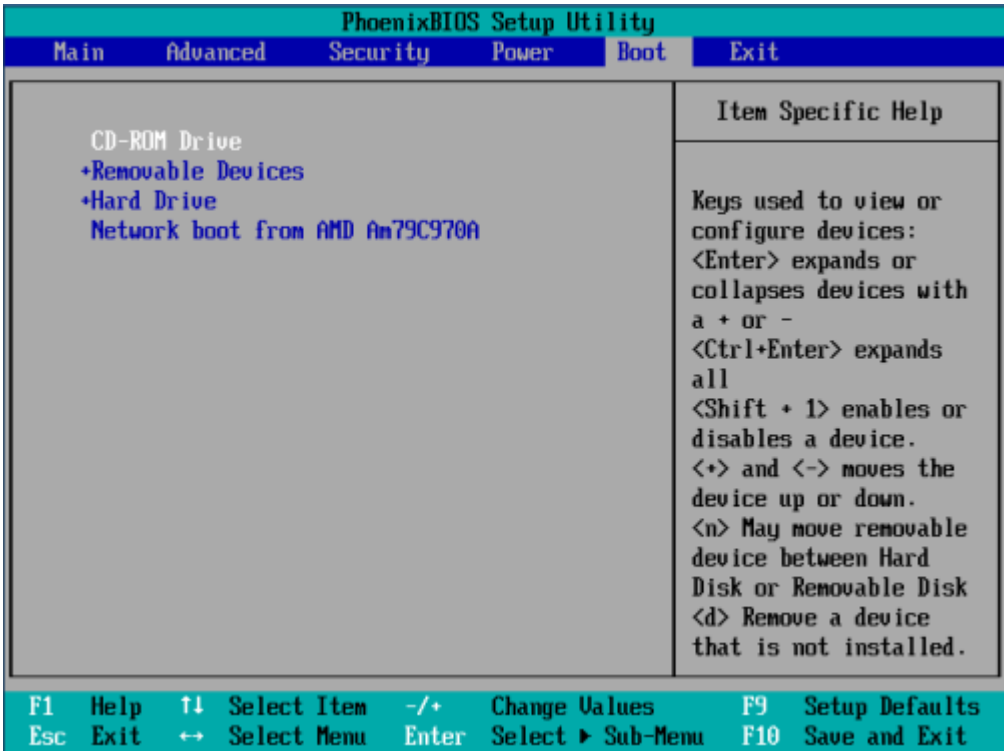
System Requirements:

512 MB of RAM is the only real requirment I think. If you have less, one of the older version (which are just as good – just dont have some of the frills). We are running Debian on machines with 32MB of RAM! You could also buy some RAM, its quite cheap these days. It will give a new lease of life to your old machine.
Another key requirement is high speed internet connectivity, at least once after you have finished the installation. If this is absolutely not available, again, you can get in touch with me and I'll send you some updates on a CD!

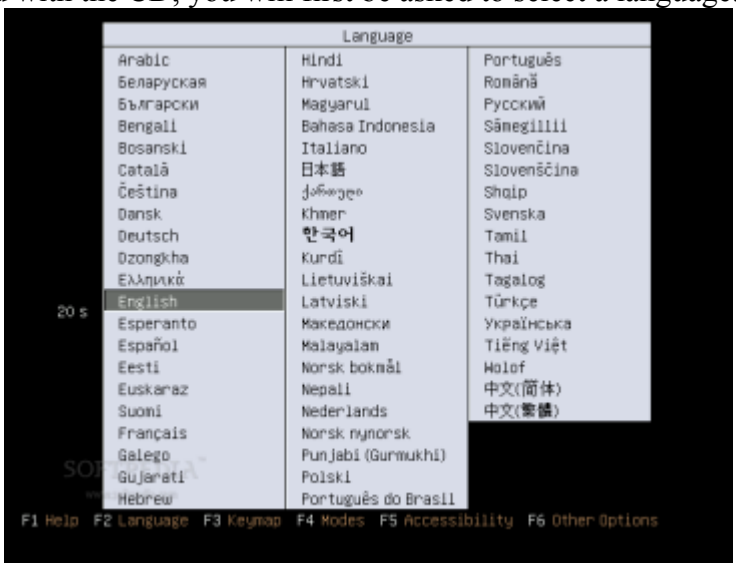
Booting from CD:

The next step is to make your PC boot from the CD. This has to be done from BIOS, and differs slightly from machine to machine. Normally you have to press F2, F8 or Del to enter BIOS while starting up. You then have to move to the 'Boot' menu, and move the CD ROM to the top of the list, using either F5 F6, PgUp PgDn or + - depending on the BIOS version.

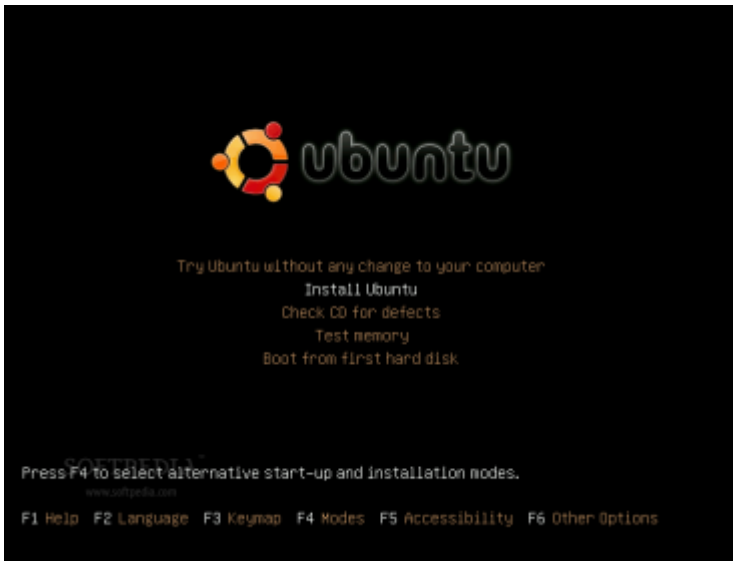
A normal BIOS screen will look like:



Once you have booted with the CD, you will first be asked to select a language.



On the next screen choose 'Install ubuntu'



Note: You could also choose 'Try ubuntu without any changes to your computer'. This will then boot live, and you can double click on the 'install' icon on the desktop to continue the same process.

You will then have to wait for a while for it to load.

The Installation

Once it boots live it will start the installation process and you will get a screen like this:

Please read throught it and figure out what to do!

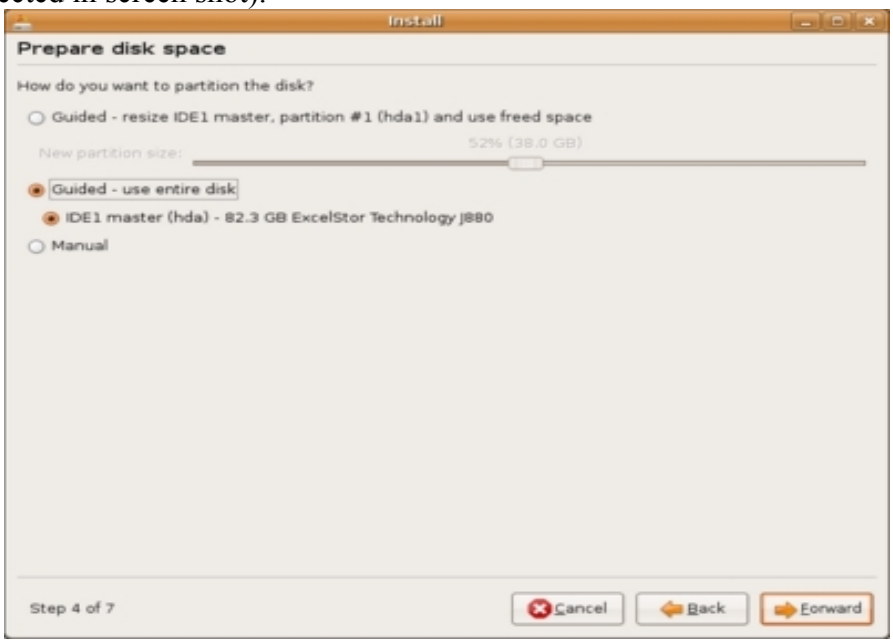
Here click on India and select Kolkota as the time zone.

We normally use the US keyboard, and the default should be be fine. However, if the symbol above 2 is not @ then you are probably using a UK keyboard, so choose it from the list.

Hard disks:
And now comes the IMPORTANT part – partitioning your disks. If you are an absolute beginner and paranoid about losing your data and existing Operating System (OS), the safest would be to choose the first option and let ubuntu do automatically for you. (Not selected in the screenshot)

If you want to get rid of your old OS though, but still are not sure if you want to learn about partitioning disks, choose the second option (Selected in screenshot).

If however, you want to experiment and learn a bit, its best you do the partitioning manually – third option (Not selected in screen shot).



Your first physical hard disk will be called hda (if it is an IDE disk) or sda (if it is SATA). Partitions on each will then be hda1, hda2, hda3 or sda1, sda2, sda3 etc. And if you have a second physical hard disk in your computer it will be called hdb or sdb.
Each disk can have a maximum of 4 primary partitions on the disk. If you want more than this you will have to make one partition an extended partition, and create logical drives (maximum of 64) within it. The way in which data is stored in a partition is called the file system. Windows by default uses a NTFS or FAT32 file system. GNU/Linux normally uses a ext2 or ext3 file system. GNU/Linux can read windows partitions, but windows will not be able to read GNU/Linux partitions.

Ubuntu (and most GNU/Linux distributions) normally require 3 partitions:

- *A swap area:* This is a part of the hard disk that is marked off, and used like RAM, for continuous read/write actions. It is advisable to make it double the size of your RAM, with a maximum of 1 GB.
- *A slash (/) partition:* This is where the file system or operating system is stored (a bit like the C drive in Windows). A basic ubuntu installation will take about 3.5GB, so this partition should be at least 5-6 GB to allow you to add things later. Unlike windows the amount of space used by the OS will not keep increasing over time with no explanation.
- *A /home partition:* This is the partition on which all your data (Home Folder) is stored. If you ever have to re-install or upgrade it will be very smooth, as all your data (including wallpaper, firefox book marks, and evolution mail) will be in this partition, and won't be touched. And it will all automatically work with the upgraded version. So this can be as large as you like, normally the rest of the hard disk.

However, if you plan to have a dual boot machine with both windows and ubuntu, the home folder on a separate partition is not a very good idea, as windows will not recognise it. In this case it is best to have:

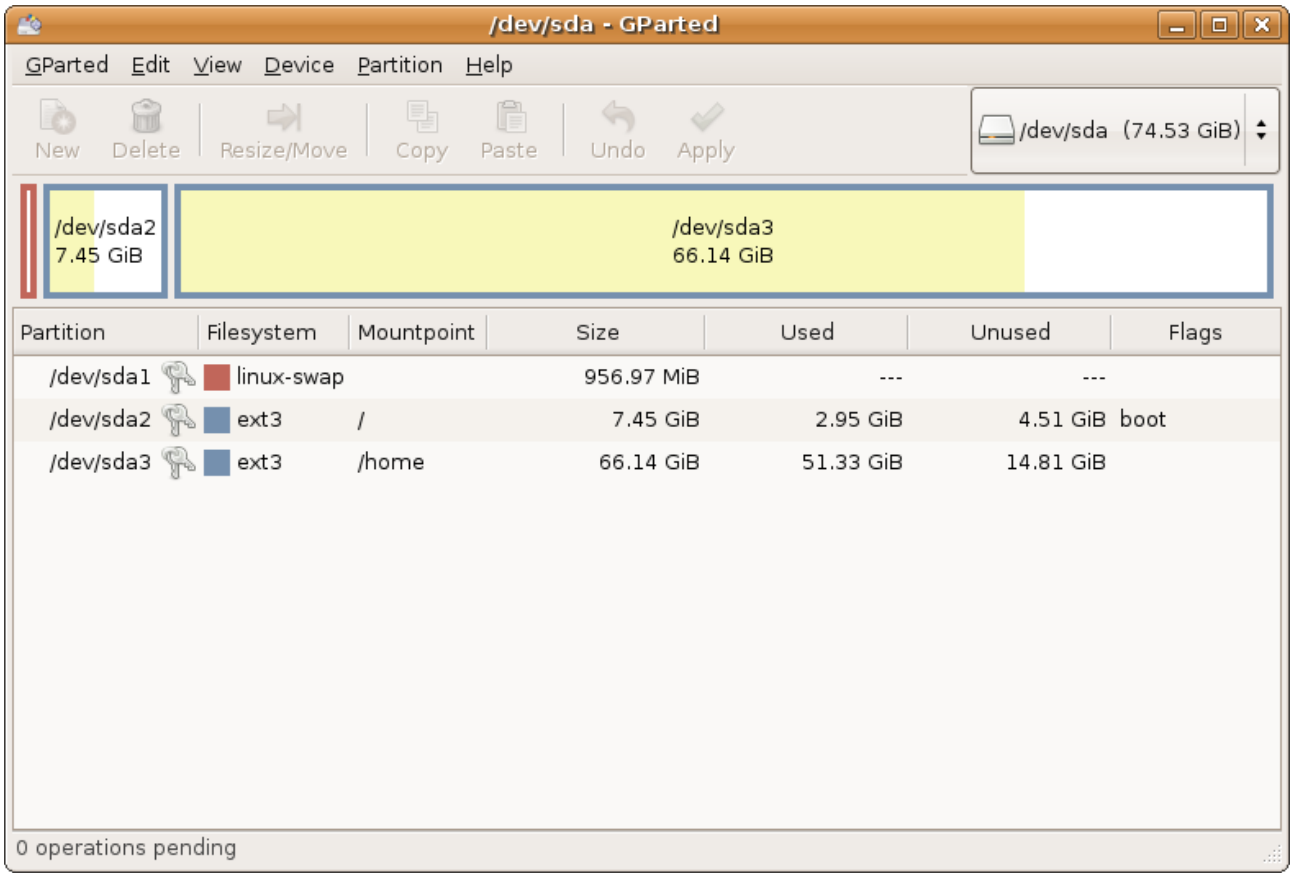
- One windows NTFS or FAT32 partition (called C drive in windows) of about 10-15 GB for the windows OS
- One swap partition of about 1 GB for GNU/Linux
- One GNU/Linux ext3 partition (the / partition) of about 6-10 GB to install ubuntu in.
- One large FAT32 partition of all the remaining space on your hard disk, where all your data is stored (normally called D drive in windows). This however, cannot function as your /home partition, as the file system is not ext3. Your home folder will be within the / partition. This partition however, will be accessible by both windows and ubuntu.

If you already have lots of partitions on your windows machine and are happy with them, you can leave them as they are, and just create a little free space to install ubuntu.

Making free space:

For this you can either delete an unused partition, or resize an existing windows partition to get some free space (this can be done in GNU/Linux without losing data). If you are confused about which partition was what on windows, it maybe a good idea to do the resize or delete using Gparted. Otherwise you can do the same thing with the partition editor that comes up as a part of the installation.

Click on System->Administration->Partition Editor.
It will look like this:

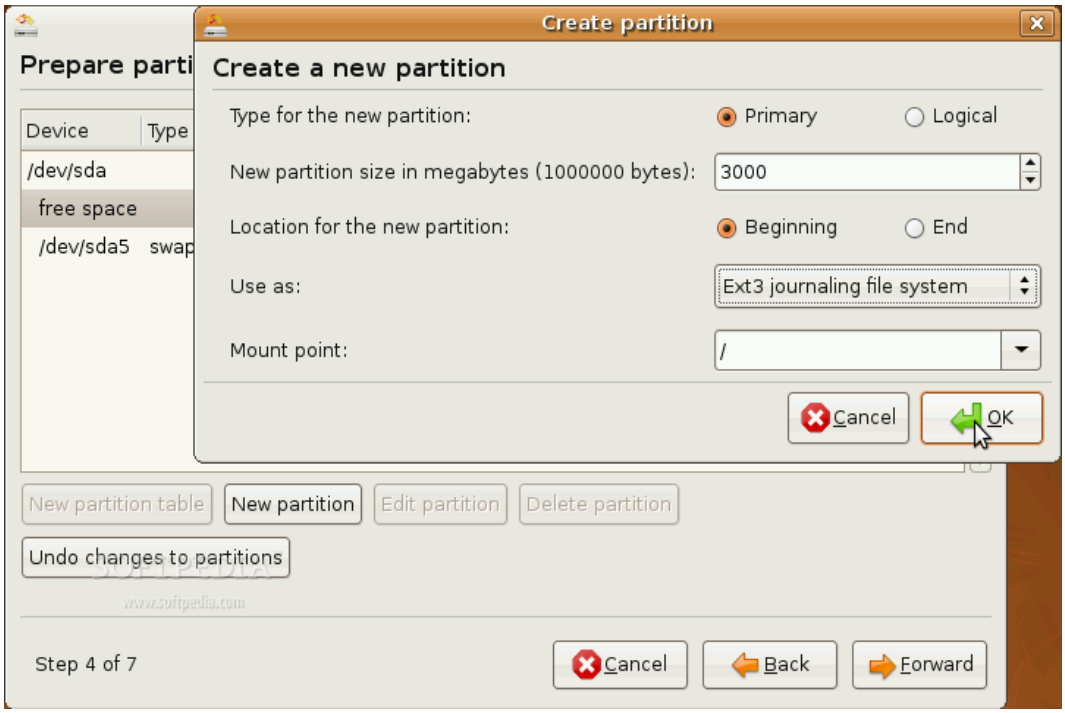


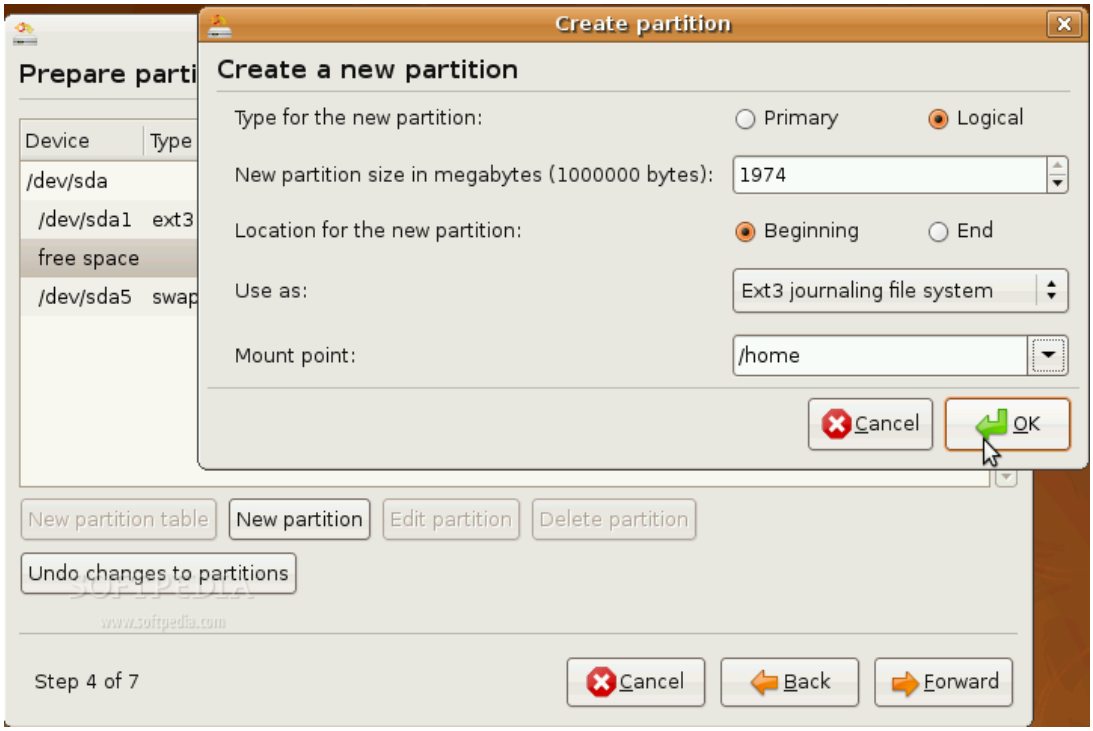
You can right click on any partition and say delete or resize/move. Once you have done this click apply on the top. Once you have made some free space back to the partition editor in the installation.

Creating the Partitions:
Hightlight the free space and click on 'New Partition' at the bottom. Another window will pop up, and you fill have to fill in the size, filesystem type (ext3), and mount point. This is where it will fit into your file structure.
For the main slash partition, this will obviously be / (available in the drop down list).
If you choose 'Use as: Swap Area', the mount point option will not be available, as this does not fit into the file structure at all.
So you can create partitions as you like. But you have to have at least:

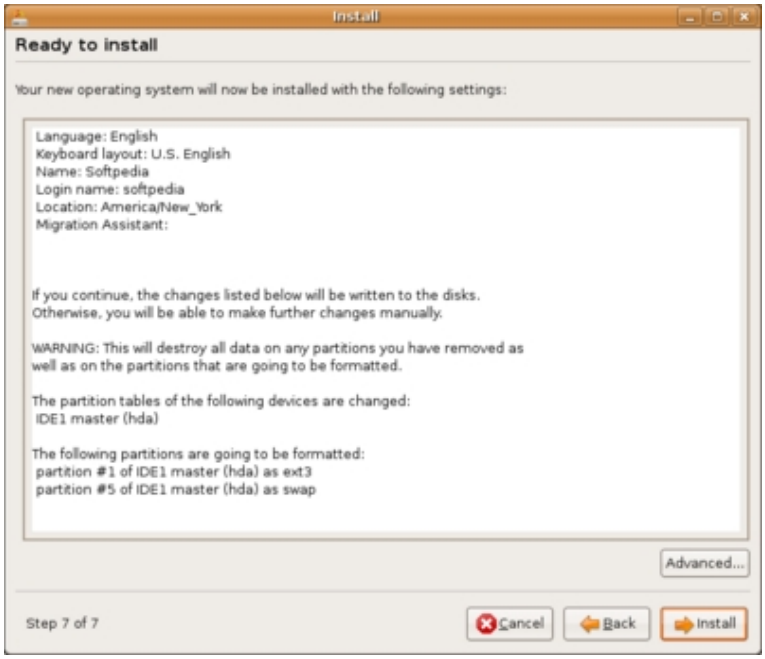
- one swap partition
- one / partition to install ubuntu in.

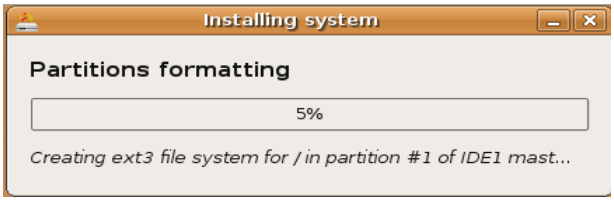
If you are having a /home partition, the mount point has to be specified as /home (available in drop down list).

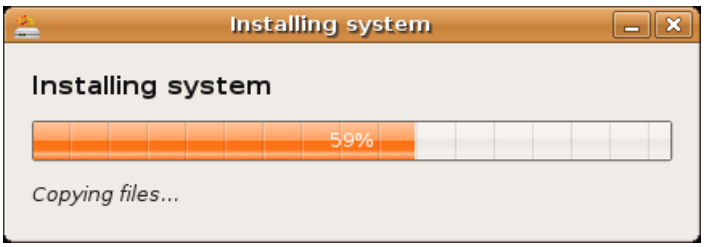


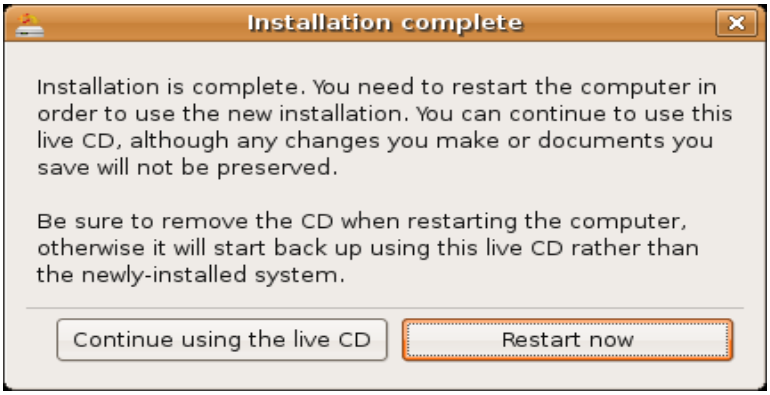


The next screens are all rather self explanatory and obvious.









Now that you are done I'm sure you'll want to reboot right away!
Do so, but be warned that there are few more 'standard' things you may want to do after installation to make it more compatible with the non-free software world.
Read the 'After Installating Ubuntu' document for that.