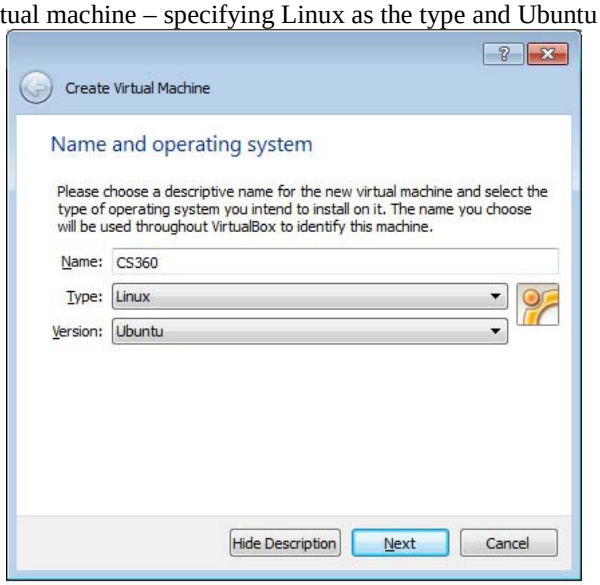
CS 360 Fall 2013
Installing a Linux Virtual Machine

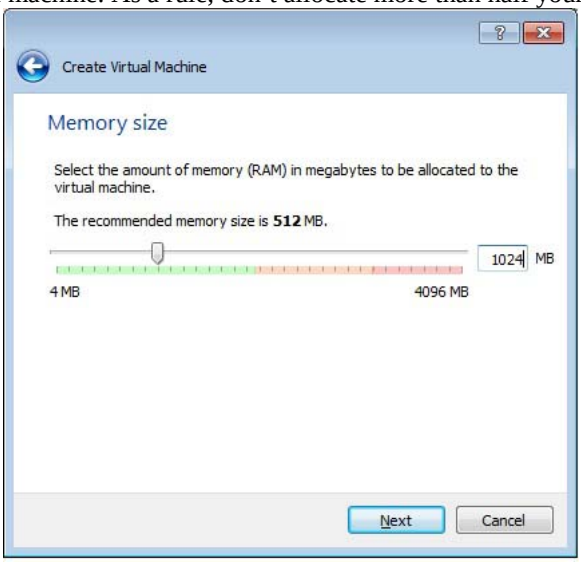
Initially, we're going to install an Ubuntu server into VirtualBox. Later, we'll take a look at installing a version of Linux that gives you much more setup control (but means you end up doing more low-end setup).

1. Get VirtualBox from http://www.virtualbox.org/wiki/Downloads. There is one executable for 32/64 bit Windows. There is also an installer for MacOS X if anyone is using that. If you are running Linux, you will likely want to use your built-in software installer to get a version of VirtualBox that your system can build kernel modules for.
2. You will also need the iso CD image for the Ubuntu installer. You can either download it from http://www.ubuntu.com/download/server/download or it is locally at http://mcsp.wartburg.edu/letsche/cs360. Please download the 32 bit version (I'm guessing we'll have fewer headaches that way??).
3. Install VirtualBox.
4. The following images will step you through the process one screen at a time.

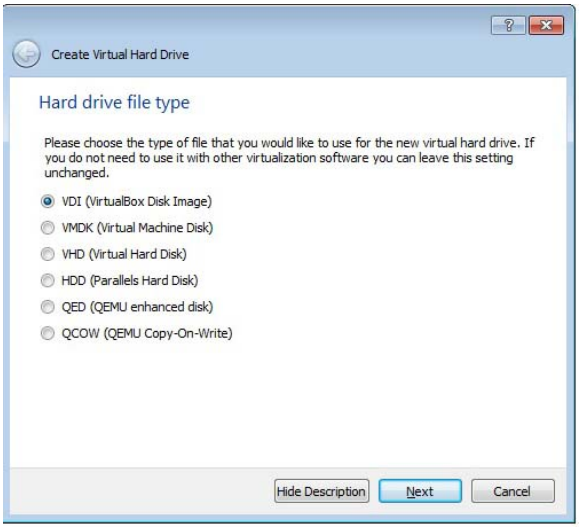
Create a new virtual machine – specifying Linux as the type and Ubuntu as the Version.



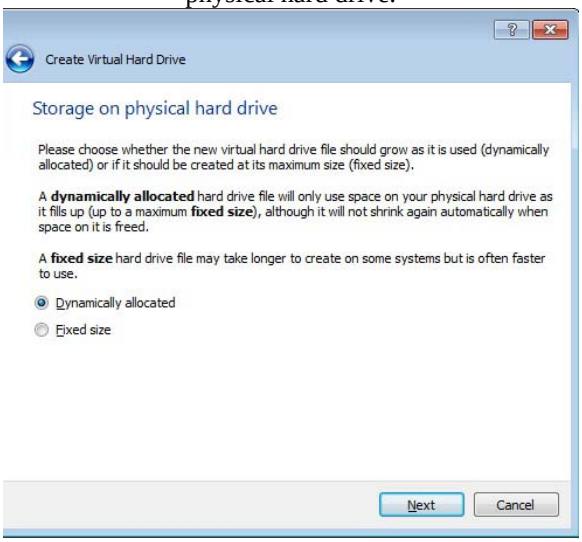
Allocate memory to the virtual machine. As a rule, don't allocate more than half your computer's physical memory.



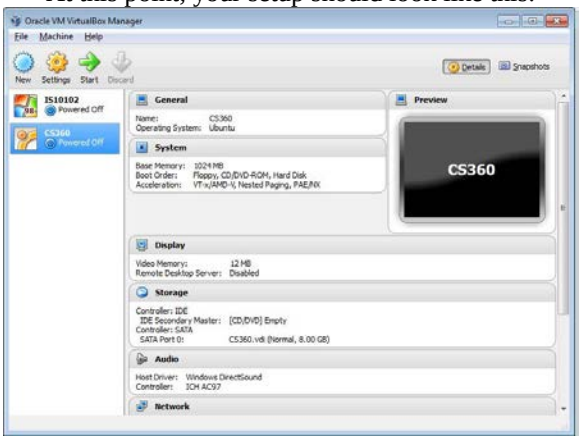
The default hard drive emulation creates a (likely) single file on your hard drive. For the best performance, stick with the defaults.



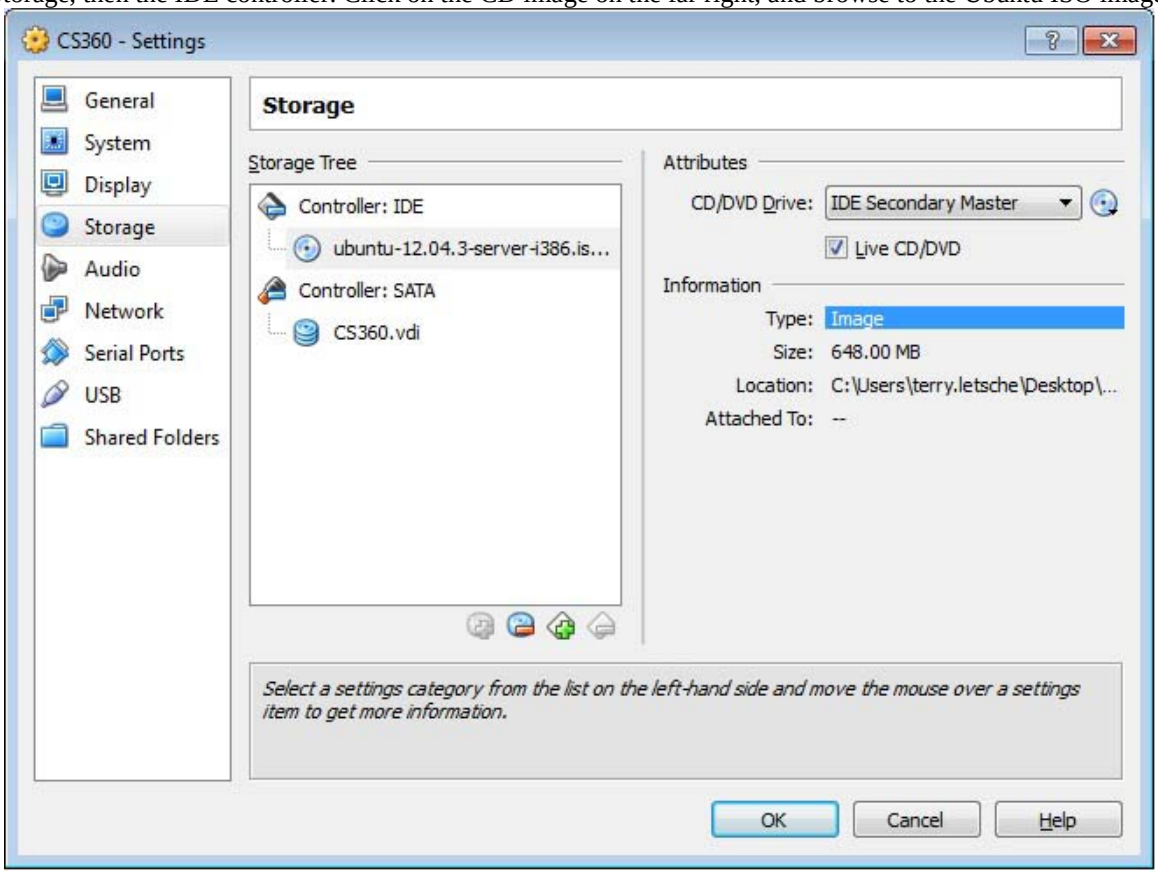
Choose Dynamic Allocation. This means the file will grow as your virtual hard drive fills up, saving space on your physical hard drive.



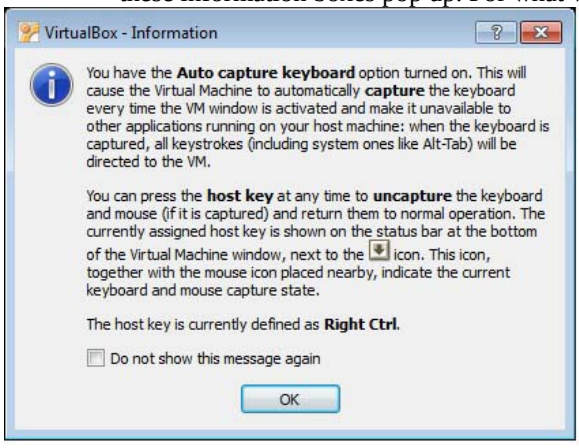
At this point, your setup should look like this:



The next step is to "load" the downloaded Ubuntu CD image into the machine's virtual CD/DVD drive. Click on Storage, then the IDE controller. Click on the CD image on the far right, and browse to the Ubuntu ISO image.

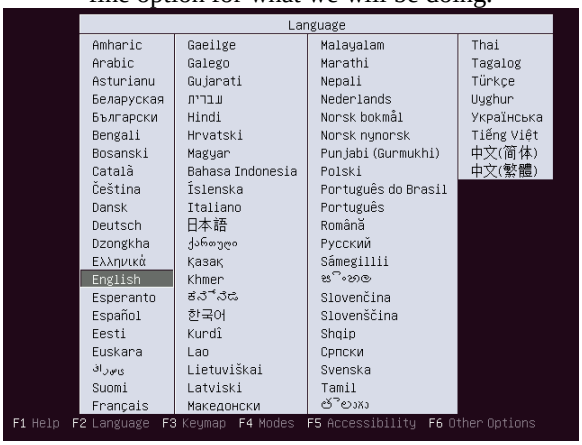


At this point, you are ready to boot your virtual machine! (You also may want to enable SMP support in your virtual machine. To do this, go to System, then click on the Processor tab and set it for the number of physical cores on your machine.) Click on the Start button to boot the machine. As the graphics, etc. are initialized, you will likely get these information boxes pop up. For what we're doing, I'd recommend ignoring them.

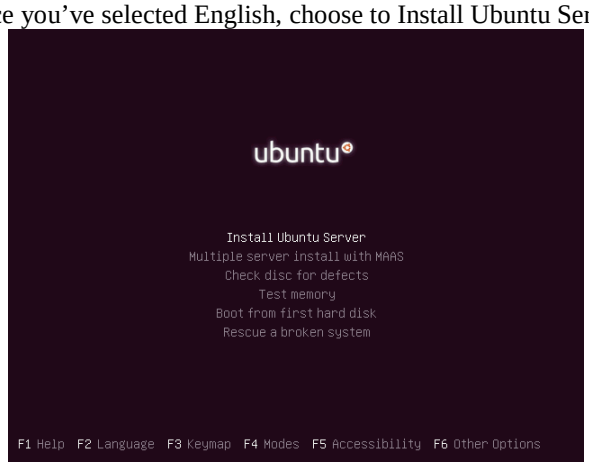


Note that your **right Ctrl** key will allow you to enter and exit full screen mode, as well as capture/uncaptured your keyboard and mouse.

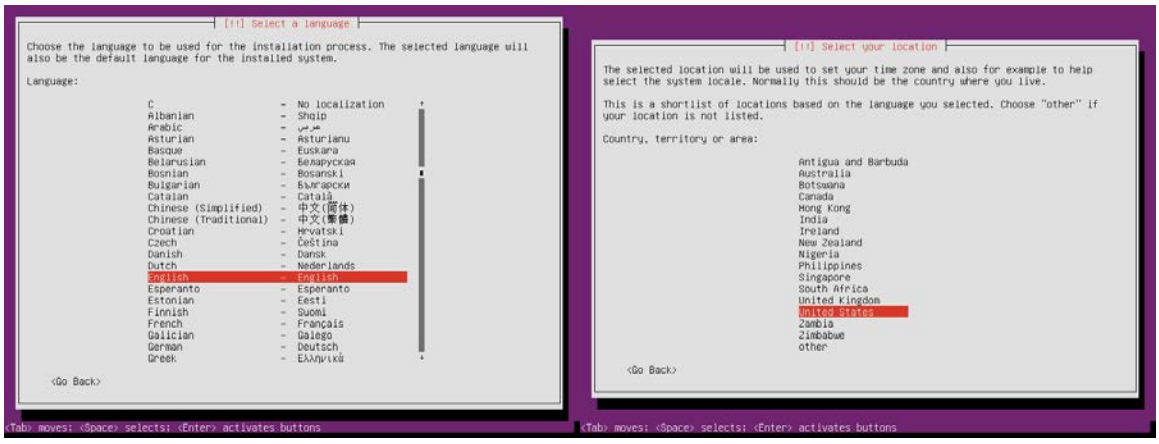
At boot you will be presented with a wide choice of languages. For most install choices, sticking with the default is a fine option for what we will be doing.



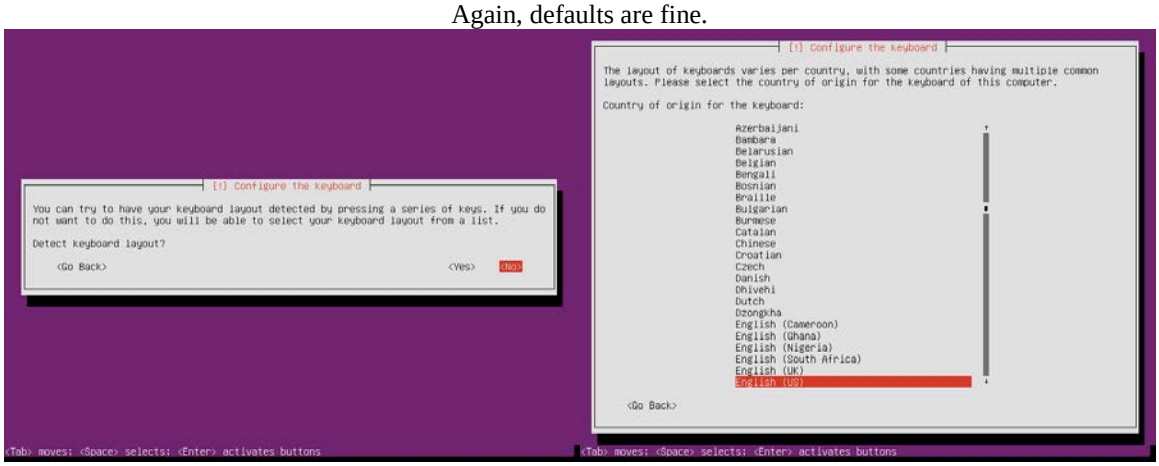
Once you've selected English, choose to Install Ubuntu Server.

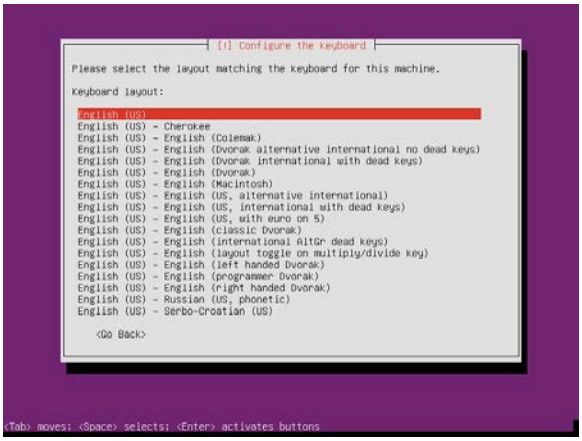


You will choose a language for the OS install, as well as a location. The defaults are fine. You can navigate through these text-based menus with the up, down, right and left arrow keys, as well as the Tab key to move between menu elements.

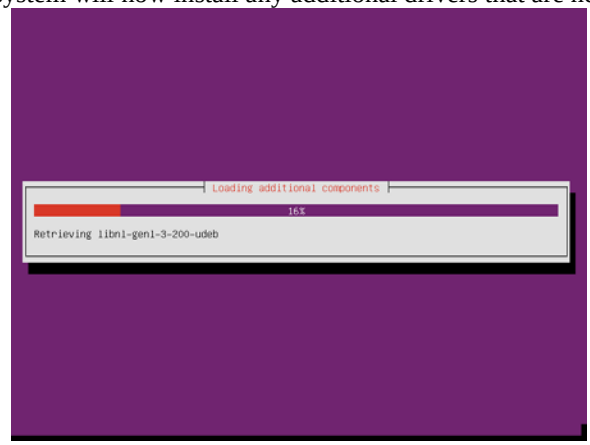


Again, defaults are fine.



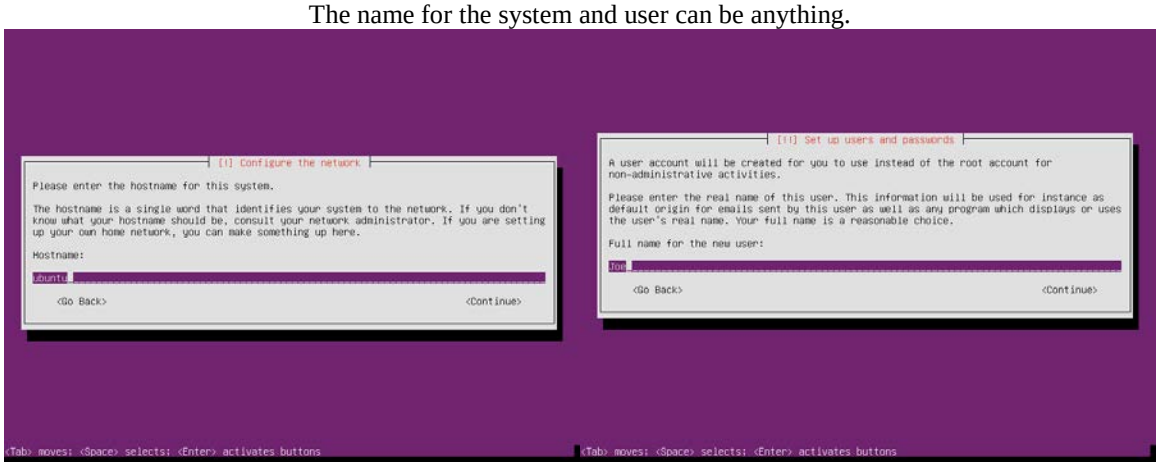


The system will now install any additional drivers that are needed.



One of the things that the install will also do is take care of making sure the most up-to-date packages are available, which will require network access. Your virtual machine should be able to access the network without any intervention provided the host machine (your laptop or desktop machine) is already connected.

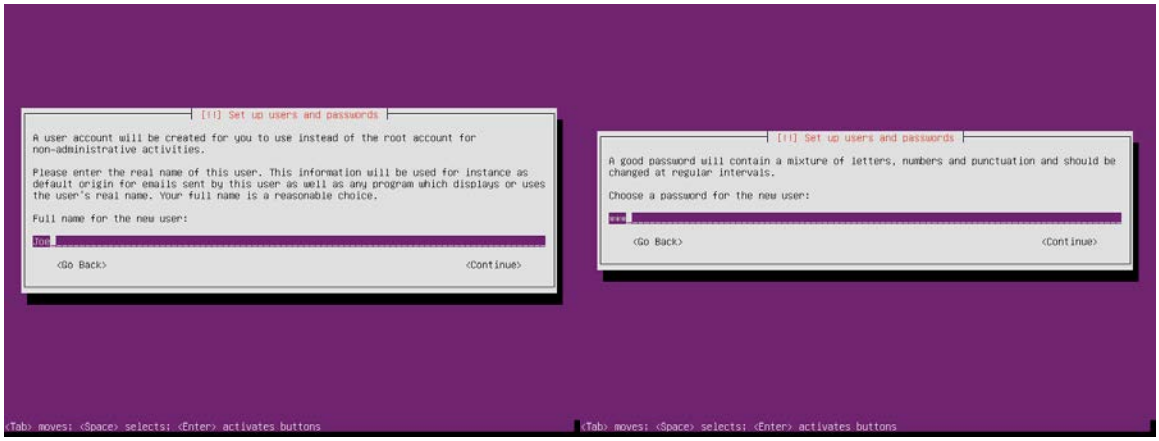
The name for the system and user can be anything.

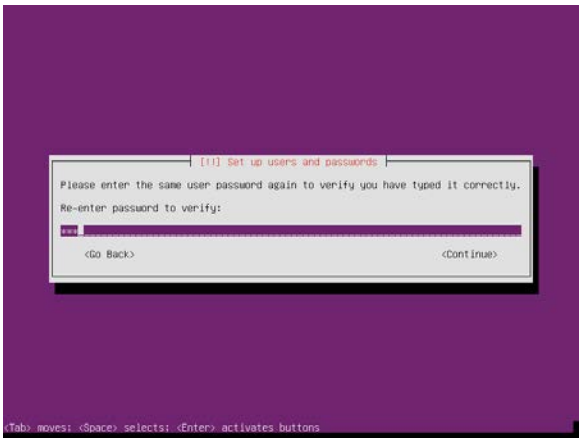


You are now prompted for a username and password that you will log into the system with. Write them down!

_____ _____

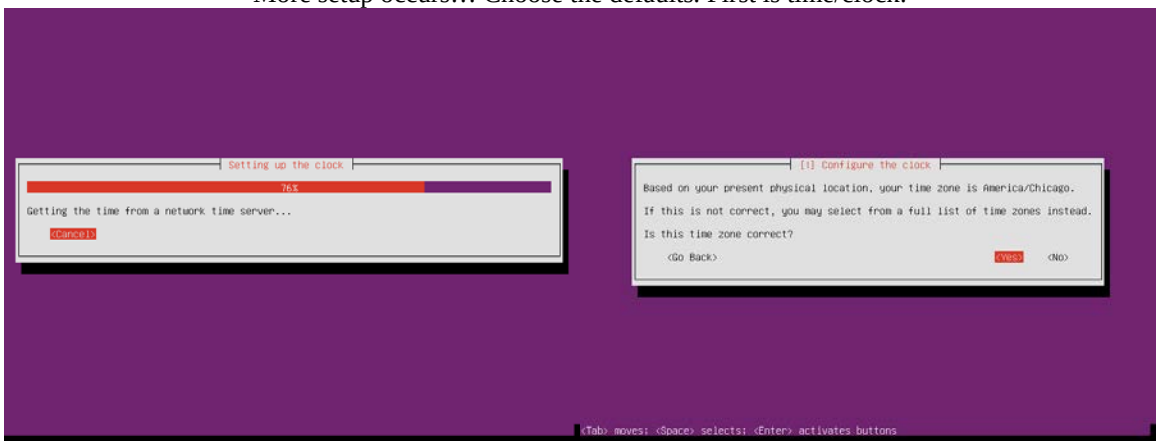
User Name Password



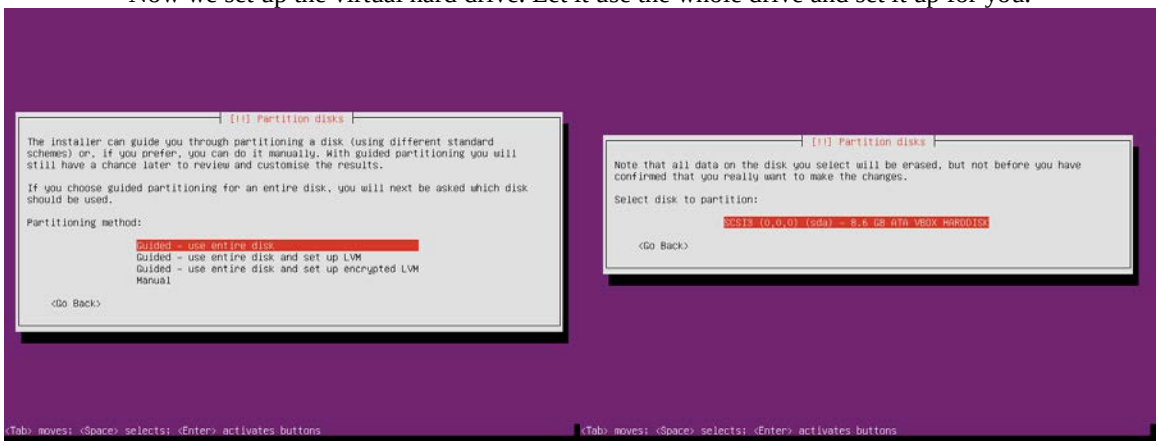


You likely won't want to encrypt your home directory.

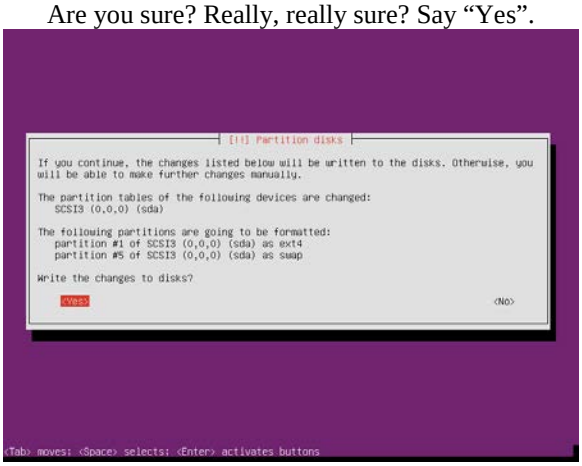
More setup occurs… Choose the defaults. First is time/clock.



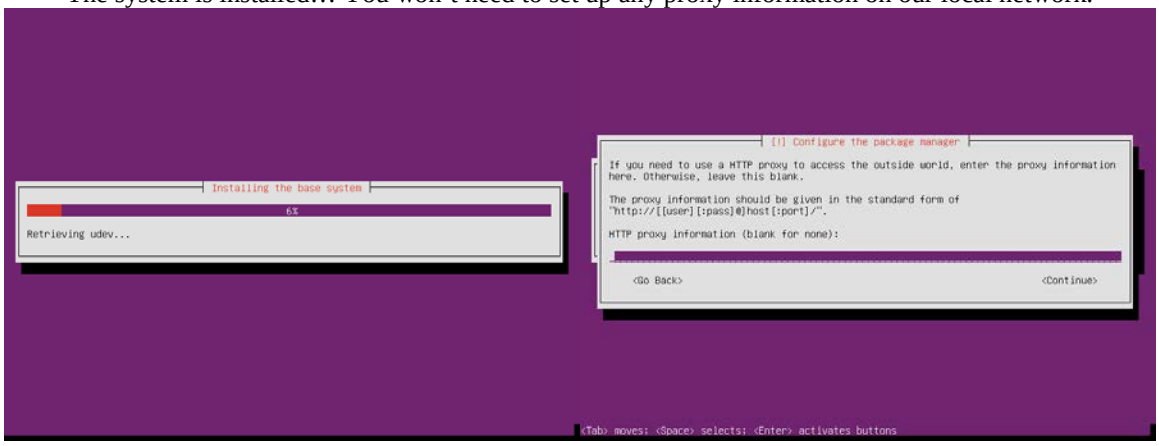
Now we set up the virtual hard drive. Let it use the whole drive and set it up for you.



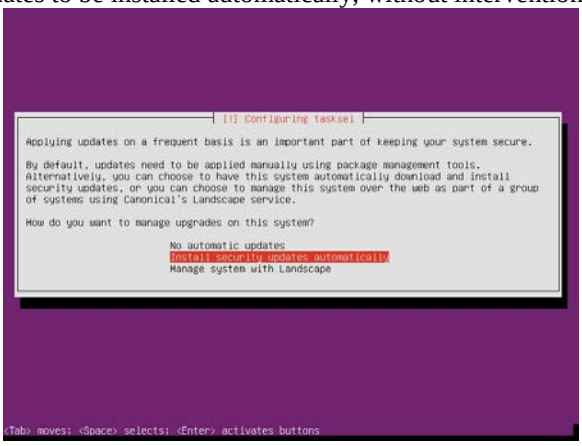
Are you sure? Really, really sure? Say “Yes”.



The system is installed… You won’t need to set up any proxy information on our local network.

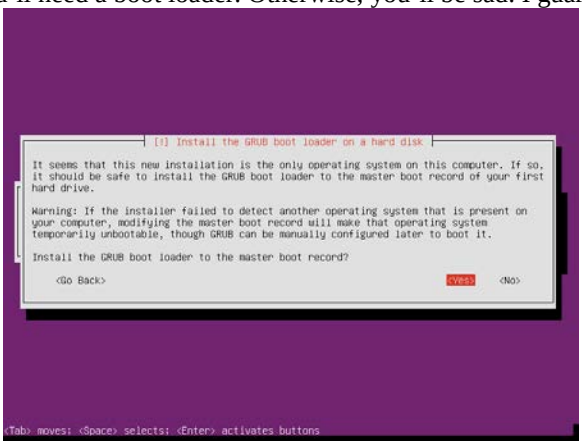


Do you want updates to be installed automatically, without intervention? Sure, why not?

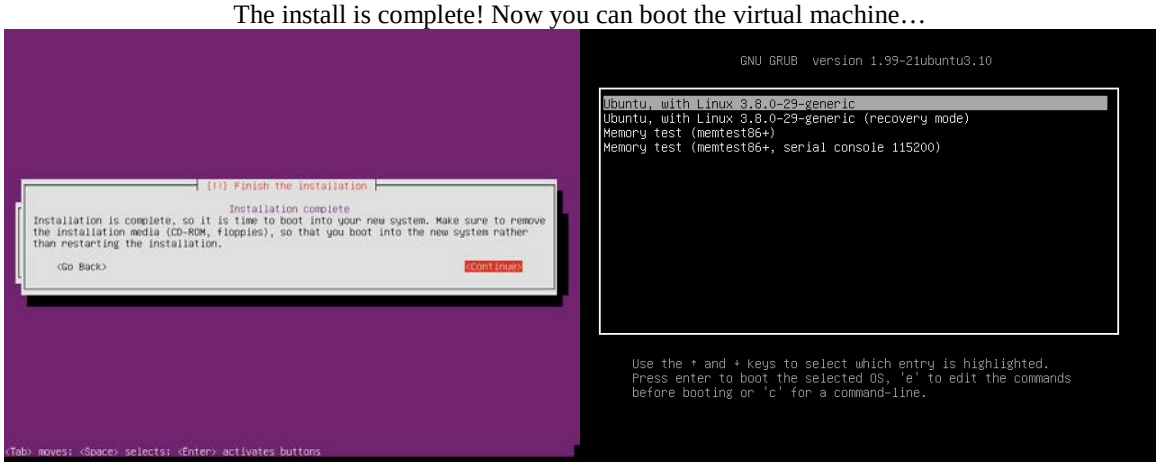


Servers? We don’t need no steenking servers!

Yes, you’ll need a boot loader. Otherwise, you’ll be sad. I guarantee it.



The install is complete! Now you can boot the virtual machine…



And log in as the user you created on page 6.

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