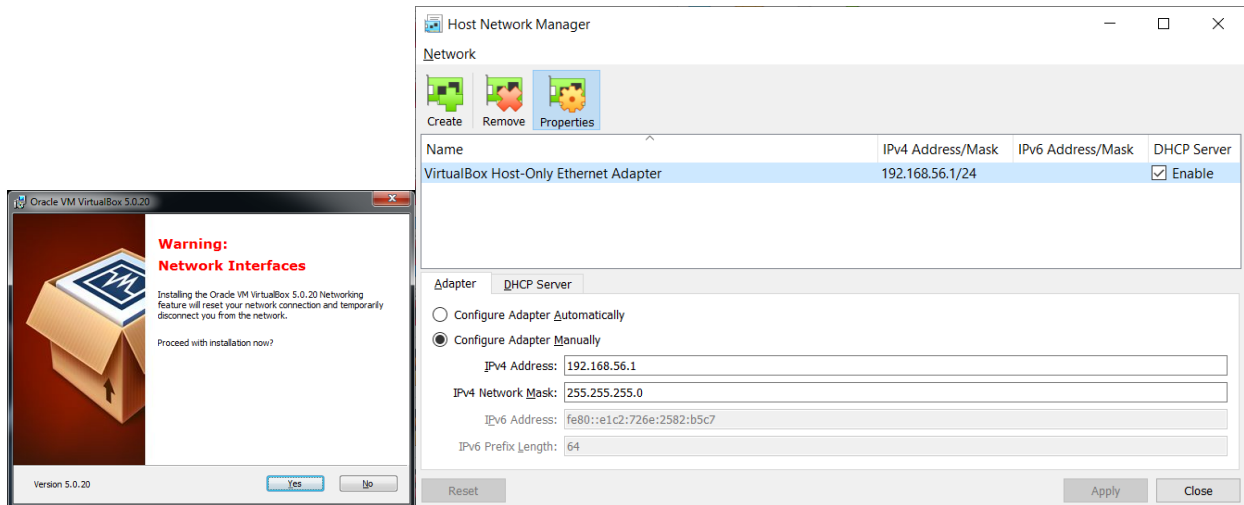Install VirtualBox. Defaults during the install is OK. You may be asked to allow it to install a network adapter, this is normal.

Before you set up your first VM, you should launch the Host Network Manager (under File in VirtualBox) and verify your host only network is set up properly as the above image indicates. Your network IP should be on the same /24 network as your DHCP server and the range of IPs. Typically the Host Only network address is 192.168.56.1, the DHCP server is 192.168.56.100, the lower range of DHCP addresses is 192.168.56.101, the upper range is 192.168.56.255.

Once you have VirtualBox set up, you need to create a virtual machine. Click on the New icon in VirtualBox:


The software will make suggestions based on the name you type in as the machine name. If you type Debian, and select a 64 bit Debian VM, you're default settings should be sufficient. Base memory could be 1G or 2G, if you have it. If you wish, you can make it 4G as well. The default hard drive size should be fine, or you can bump it up to 20G, keeping in mind you can set it to Dynamically allocate, which means the storage on your hard drive for the virtual drive in VirtualBox will grow as needed.

After created, you may adjust your number of cores to two, video memory to 128MB, and you will need to modify the storage settings for where to find the installer OS image.

Most important is you need to configure the network interfaces properly. For Debian, you will need to configure two interfaces, one for NAT (I suggest the first one, enp0s3 during the install) and one for the host only network above.

Select Storage on the settings dialog box, and click on CD icon, select the little dropdown icon along the right side of the dialog box, and specify the cd image from Debian
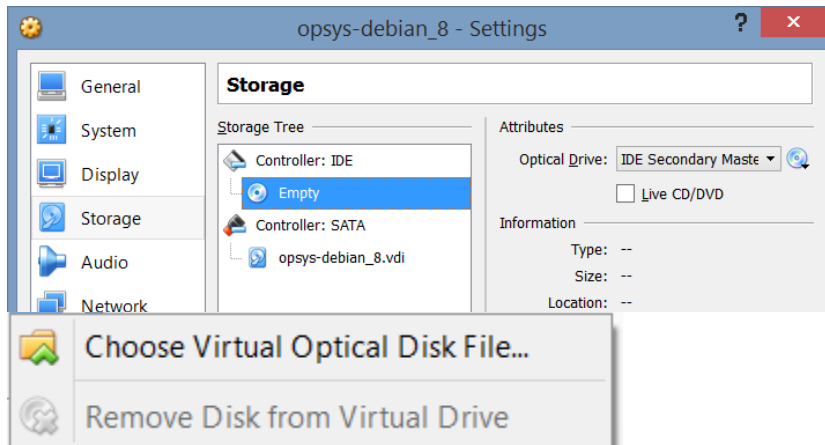
Once you have made those changes, you are able to power on and install Debian, by clicking Start for the virtual machine.

For the installer, choose a graphical install,
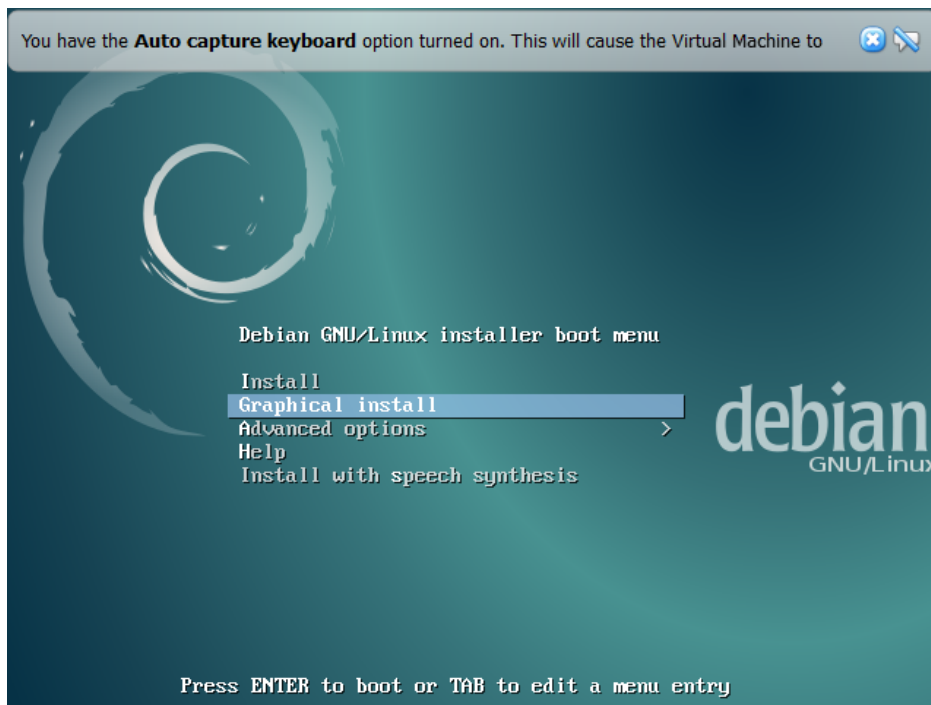
Select your language (English I suppose), location (Canada) and keyboard layout.

Next give your machine a name, and a network name. I suggest Debian, and security.bit respectively/

You will next be responsible for setting a password for the root account, and creating a new user with a password. As this is a test/development environment, I recommend using the same password for everything. In the future, we will be adding mysql, phpmyadmin, and other server services. I suggest you use the same password for everything.

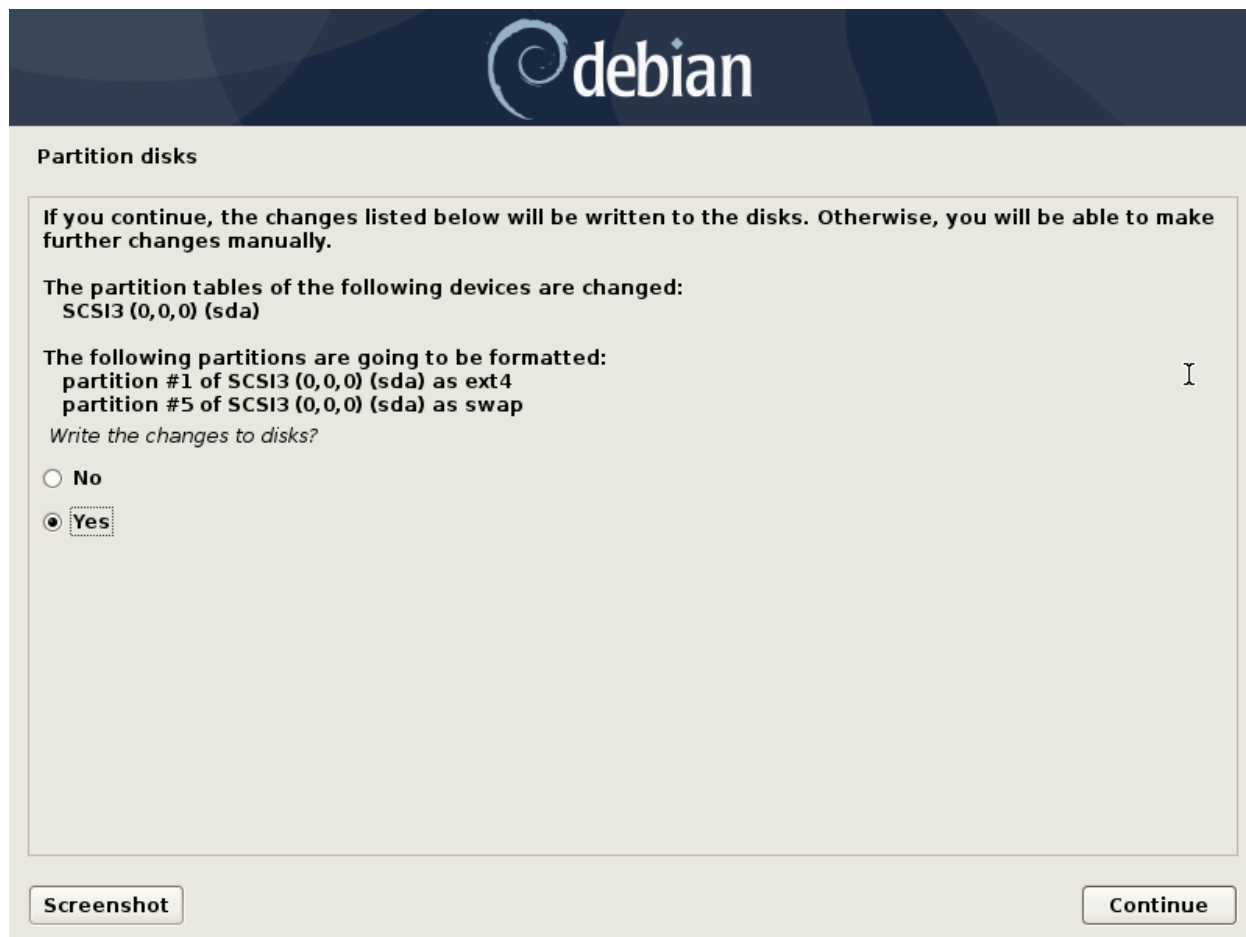Next, specify the timezone. Central of course.

We now need to set up our hard drive. I suggest using the entire disk with the wizard guiding you:
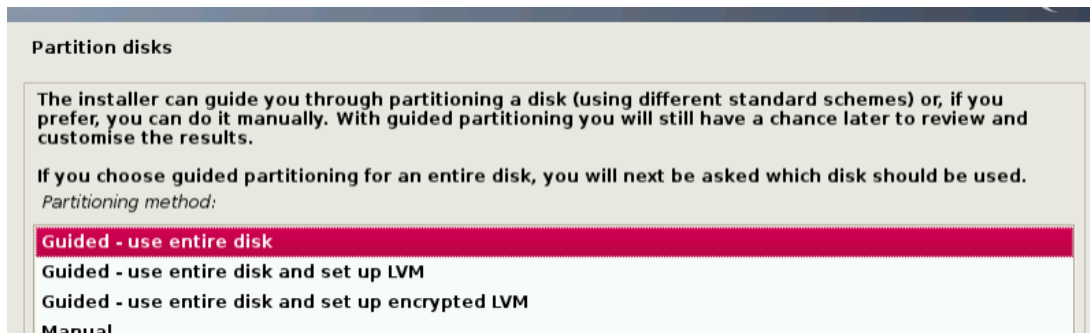
The defaults should be fine, you will eventually be presented with the following:

You will need to select Finish, and when it asks, say Yes to save changes to disk. It is the first time the default is different than what you select.

Partition disks

If you continue, the changes listed below will be written to the disks. Otherwise, you will be able to make further changes manually.

The partition tables of the following devices are changed:
  SCSI3 (0,0,0) (sda)

The following partitions are going to be formatted:
  partition #1 of SCSI3 (0,0,0) (sda) as ext4
  partition #5 of SCSI3 (0,0,0) (sda) as swap

Write the changes to disks?

○ No

◉ Yes

[Screenshot]   [Continue]

The install will start, and will ask you to swap disks. Say no, and yes to using a network mirror. I suggest using **ftp.ca.debian.org**, as the other mirrors have a bad habit of disappearing.

You will be asked if you want to join the "popularity contest" to determine what software appears on the installer. I suggest saying no to this, but up to you.

You will be asked what packages to install. Please say "SSH Server" and "Standard System Utilities". We will add the other components as needed. We are setting up a hardened version of a server, and should only select the necessary tools, and nothing else.

Software will download and install from the network mirror, and eventually you will be presented to install Grub the boot loader. Choose Yes to install the grub boot loader, and choose to install it to the hard drive /dev/sda, **NOT** manual. It will complete, you can click on Continue, and you will be presented with a clean Debian install. We will expand on this in the future.