VM FAQ

VirtualBox says "VT-x is not available" and/or I get error code "VERR_VMX_NO_VMX"

To run a VM efficiently on your computer, it must support a technology called VT-x. Fortunately, practically all modern computers support VT-x but, by default, this functionality is disabled on the computer, but can be re-enabled by modifying the computer's BIOS settings. The process to do this varies a lot from one computer to another, but you can generally access your computer BIOS setting by pressing F2 or Esc when the computer is booting up (some computers will explicitly show a message like "Press F2 to interrupt normal startup" or something along those lines). Once you are in the BIOS settings, you will need to find a setting called "VT-x" or "Virtualization Extensions", and activate it.

You may also want to simply Google for your computer's model and the words "VT-x" and "BIOS". This will usually take you to one or more pages with instructions that are specific to your computer.

I can't push/pull from the department's GitLab server from inside the VM

If you see any error like this:

```
ssh: Could not resolve hostname mit.cs.uchicago.edu: Name or service not known fatal: Could not read from remote repository.
Please make sure you have the correct access rights and the repository exists.
```

the most likely cause is that your VM is not connected to the network.

Check that the machine you’re running the VM on has Internet access (you can do this just by opening a browser and going to any page). The VM relies on your machine’s Internet connection to reach the GitLab server so, if your machine doesn’t have Internet access, neither will your VM.

If your machine’s Internet access is working correctly, you should try to restart the VM’s networking. In the top right corner of your VM, there should be an icon with two arrows pointing in opposite directions:

Click on that icon. It should bring up a pull-down menu where one of the options should be “Enable Networking”. That option should have a check mark next to it. Click on it once to disable the VM’s network, and then click on “Enable Networking” again to enable it. This will restart the networking on your VM, and may solve the problem.

If you don’t see the icon with the two arrows, the window your VM is running on may be too small.
Either resize the window or scroll horizontally until you can see the icon.

**I can't access the Internet from the VM**

See answer to the previous question.

**Why is the prompt student@cs-vm:~$?**

The VM has a single user account on it called student, and that is the account you should use to log into the VM. CNetIDs are not recognized by the VM.

**My VM is really slow. Can I make it go faster?**

If your VM is running slowly, try doing the following:

1. Power down your VM all the way. If it's closed and in a saved state, you'll have to start it up, and then shut it down either from the Ubuntu power menu, or by closing the container window and choosing “Send the shutdown signal”, then clicking “Shut down” in the Ubuntu popup.
2. With your VM entry selected, click on the yellow Settings gear in the VirtualBox window.
3. Head to System > Motherboard. Allocate half of your Base Memory. **Don't touch** anything else here.
4. Head to System > Processor. Allocate half of your Processors (the slider should be at the border between green and red). Enable PAE/NX, if the option is available.
5. Head to Display > Screen. Crank up Video Memory to the maximum - push the slider all the way to the right. Enable 3D Acceleration. If you are using a Windows or Mac, select “VBoxSVGA” as the Graphics Controller.
6. Click OK
7. Power the VM back up

**The text on my VM is really small. How can I make it bigger?**

If you have a very high resolution display, your VM may appear with very small (and hard to read text). Try doing the following:

1. Close your VM by saving its state (you do not need to shut it down).
2. With your VM entry selected, click on the yellow Settings gear in the VirtualBox window.
3. Head to Display > Screen. Under Scale Factor, try setting the value to 175%.
4. Click OK
5. Start the VM again

If your text is still too small, repeat the above steps, and try incrementing the Scale Factor to 200%. If that's still too small, try 225%, etc.