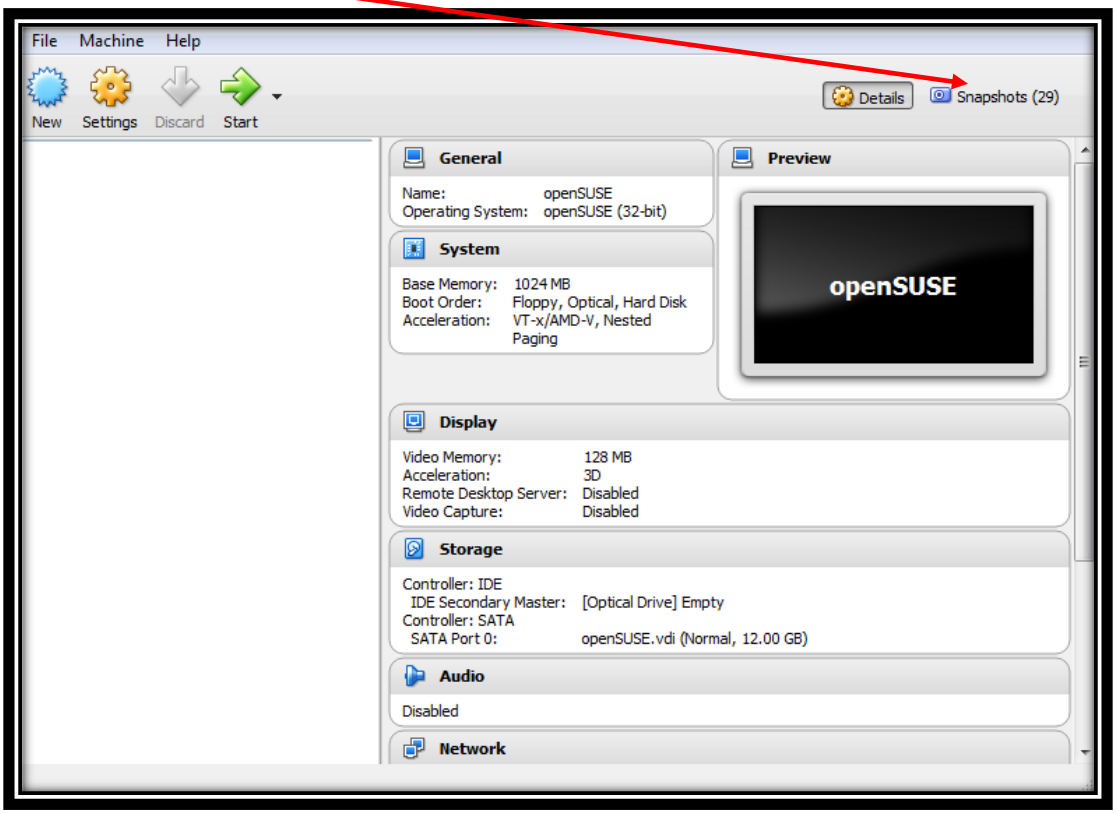
Practical Exercise 7-4: Building Software from Source Code

This Practical Exercise will take students through of the tar utility and installing an application (Pure-FTPd) from a tarball.

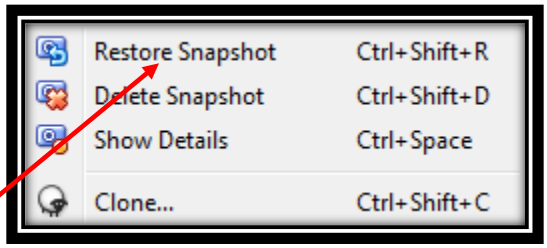
Open VirtualBox and start the openSUSE VM. Run snapshot 8-3 for the correctly configured environment. To run snapshot 8-3:

1. Open the Oracle VM VirtualBox manager by double clicking this icon on your desktop:

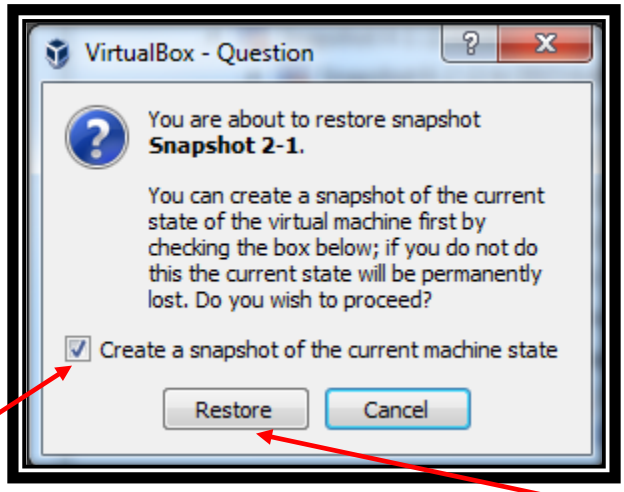
2. Click "Snapshots" in the top right of the Oracle VM Virtualbox Manager.



3. In the right side box populated with snapshots scroll up and find the one titled "Snapshot 8-3" and right click on it. The following box should appear:

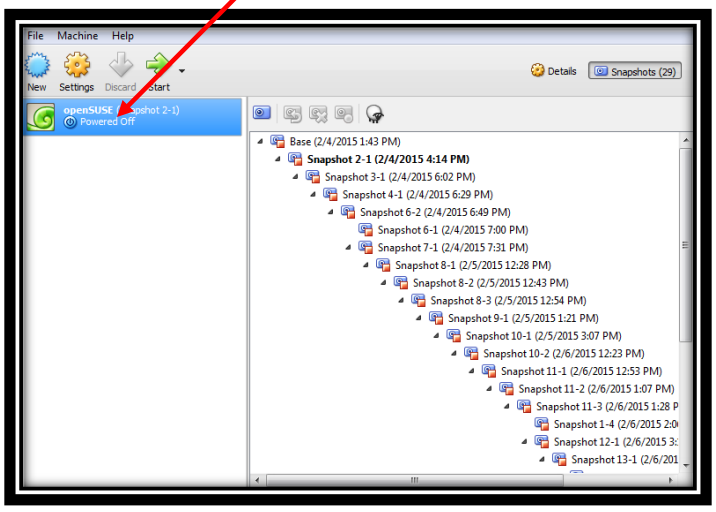


4. Select "Restore Snapshot" and the following pop-up should appear:



5. Uncheck the "Create a Snapshot of the current machine state" box and then click the "Restore" button.

6. You should now see in the left box the openSUSE (Snapshot 8-3) with a status of "Powered Off." Power it on by double clicking it.



7. A separate window should open and you should see the openSUSE Linux OS booting.

8. Press **CTRL+ALT+F1** and login with the username: root and with the password: **student**.

9. You should be in the home directory but if you are not enter **cd ~**.

10. Enter **ls** and verify that the pure-ftpd-1.0.36.tar.gz tarball file is there in the directory.

11. Enter **tar -zxvf ./pure-ftpd-1.0.36.tar.gz**. The -z will decompress the actual files from the tarball to a named directory within the current directory due to the ./. The -x will extract the files from the tarball. The files extracted from the tarball should have been printed to screen due to the -v option. The -f option is there for a filename.

12. Enter **ls** and you should still see the pure-ftpd tar file but also a pure-ftpd-1.0.36 directory.

13. Move to the pure-ftpd-1.0.36 directory by entering **cd pure-ftpd-1.0.36**.

14. Run the configure script by entering **./configure**. This script will verify that the software can be installed on the system.

15. Once done we will compile the executable by entering **make**.

16. Now let's install the pure-ftpd application by running **make install**.

17. Enter **whereis pure-ftpd** and you should see that it was installed in the usr/local/sbin/pure-ftpd directory.

18. Start the service by entering **/usr/local/sbin/pure-ftpd &**.

19. Enter **ftp localhost**.

20. Once prompted enter **anonymous** as the username and you should be logged onto the FTP server demonstrating the pure-ftpd application/service is installed and working.

21. Enter **quit** to disconnect and to get back to the bash shell.

22. You should still be in the pure-ftpd-1.0.36 directory. Lets uninstall pure-ftpd, enter **make uninstall**.

23. Enter **whereis pure-ftpd** and you should see it not installed.

--End of Practical Exercise--