

Practical exercise 2-10: Using Pipes

This Practical Exercise will take students through pipes in a Linux OS via the use of the **grep** and **tee** utilities.

Open VirtualBox and start the openSUSE VM. Run snapshot 2-1 for the correctly configured environment. To run snapshot 2-1:

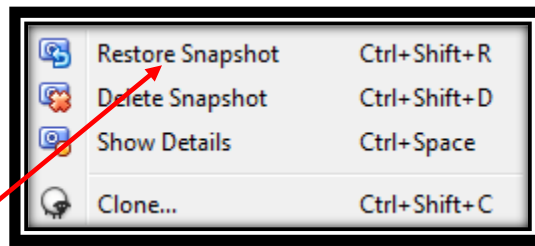
1. Open the Oracle VM VirtualBox manager by double clicking this icon on your desktop:



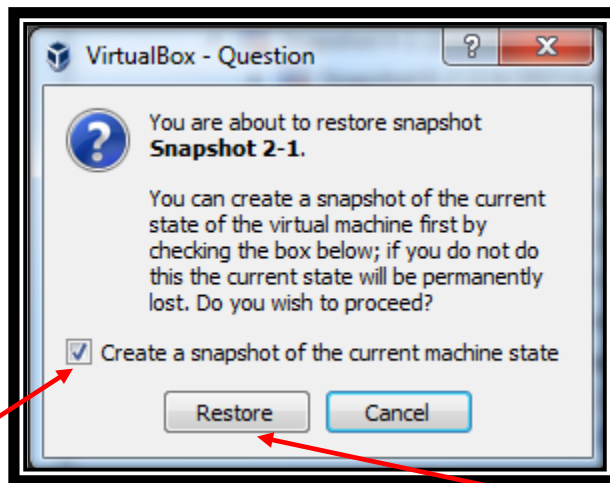
2. Click "Snapshots" in the top right of the Oracle VM Virtualbox Manager.



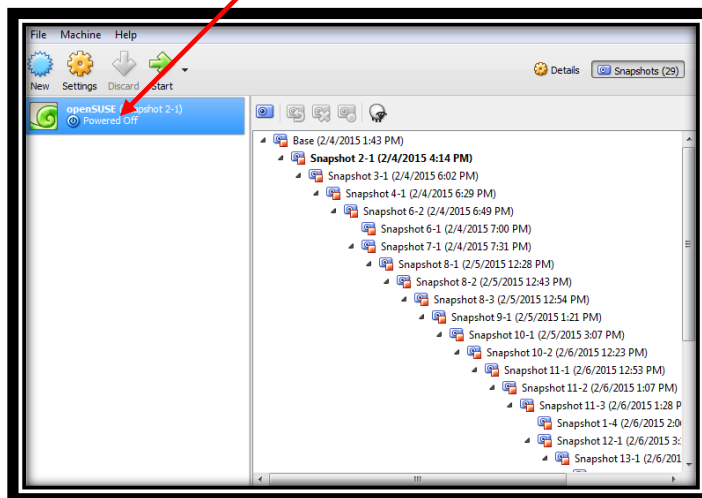
3. In the right side box populated with snapshots scroll up and find the one titled "Snapshot 2-1" and right click on it. The following box should appear:



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 2-1) 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. Log in as the user student with the password: **student**; then press CTRL+ALT+F1.
9. At your login prompt, authenticate to the system as the user: **student** and password: **student** again.
10. Change to your root user account by entering **su** – followed by your root password.
11. View all entries in your system log that contain the word “kernel” by piping the output from cat to grep. Enter **cat /var/log/messages | grep kernel** at the shell prompt to do this.
12. The output from the preceding command was probably very long. Pipe the output from cat to grep to more by entering **cat /var/log/messages | grep kernel | more** at the shell prompt.
13. Send the output from the preceding command to the screen and to a file named kernel.txt in your home directory by entering **cat /var/log/messages | grep kernel | tee ~/kernel.txt** at the shell prompt.
14. Verify the information was written to kernel.txt by entering **cat ~/kernel.txt** at the shell prompt.

--End of Practical Exercise--