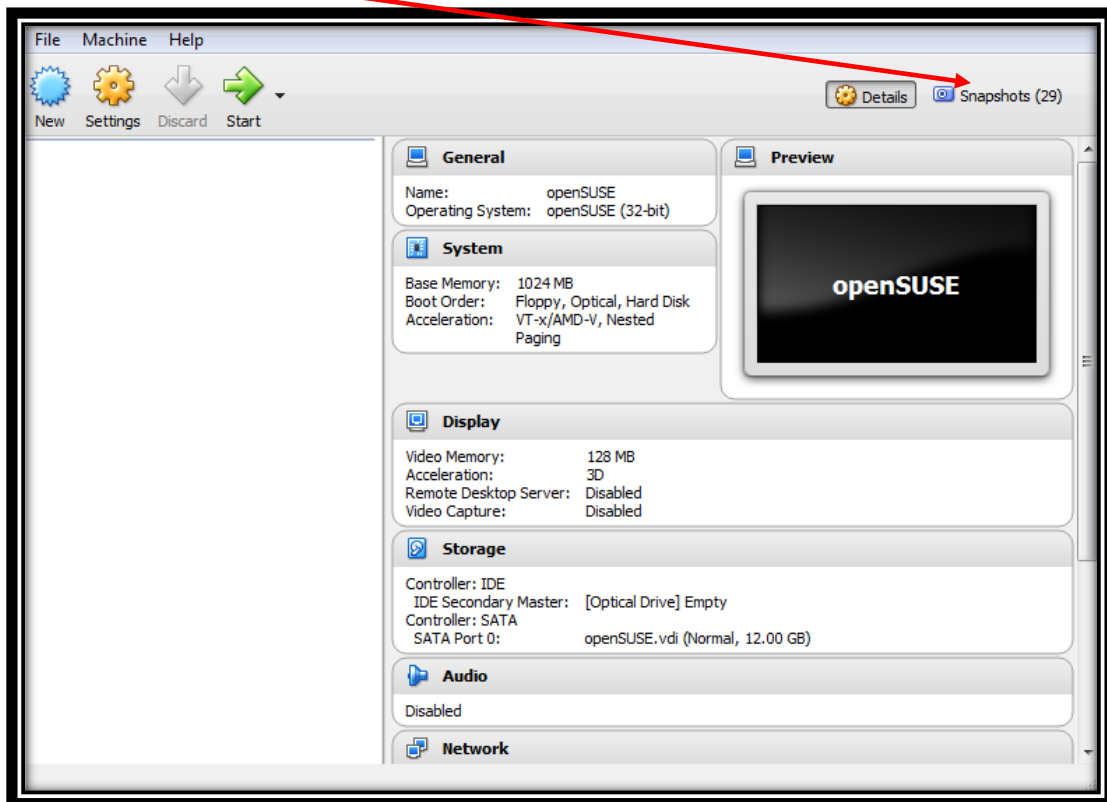# Practical exercise 2-1: Working with Linux Shells

This Practical Exercise will take students through the initial use of the Linux shell, identifying what version of the shell is in use, switching between shells and demonstrating that Linux is a multiprocessing/multi-user OS.

Open VirtualBox and start the openSUSE VM. Run snapshot 2-1 for the correctly configured environment. To run snapshot 2-1:
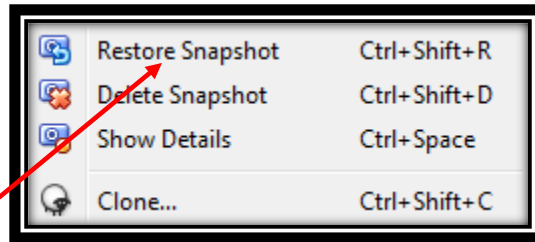
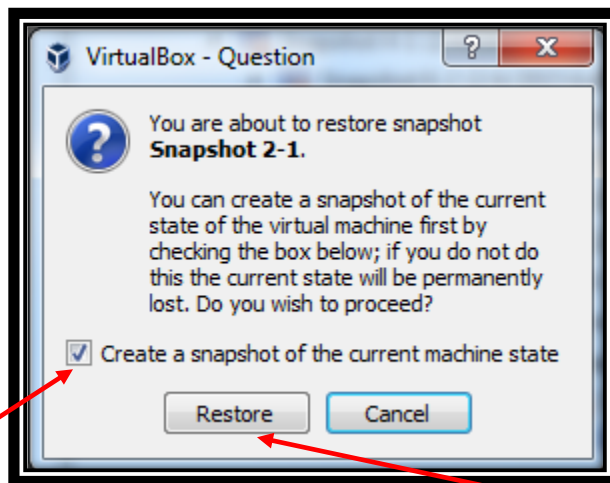1. Open the Oracle VM VirtualBox manager by double clicking this icon on your desktop:

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:
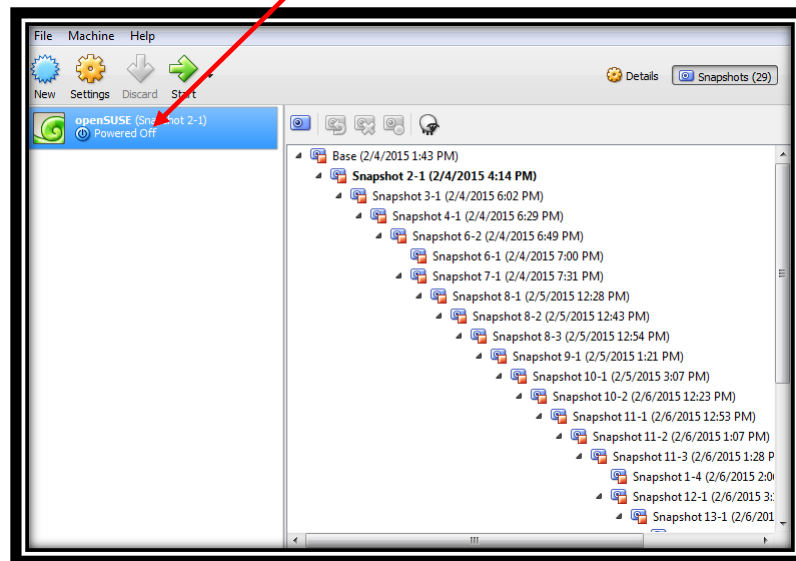

4. Select "Restore Snapshot" and the following pop-up should appear:

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. View your default shell by entering **echo $SHELL** at the prompt. Your default shell is displayed. On most systems, this will be */bin/bash*.

11. Open an alternate console window by pressing ALT+F2. A new login prompt is displayed.

12. Authenticate again to the system with the credentials from step 9. This demonstrates the multiprocessing/multiuser capability of Linux. A program could be run in the initial shell and if a separate application/task needed to be run, a second console could be opened and the second application run at the same time.

13. Return to the first console screen by selecting ALT+F1.

14. Load the sh shell by entering **sh** at the prompt. You should have noticed a change in the command prompt as it changed from the default bash prompt of student@openSUSE:~ to the sh prompt of sh-4.2$.

15. Return to your default shell by entering **exit** at the prompt.

16. Enter **logout** to logout of the shell session.

17. Return to the graphical environment by pressing ALT+F7.

--End of Practical Exercise--