

Practical exercise 2-9: Redirecting Input and Output

This Practical Exercise will take students through the process of redirecting inputs and outputs from various utilities in a Linux OS.

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

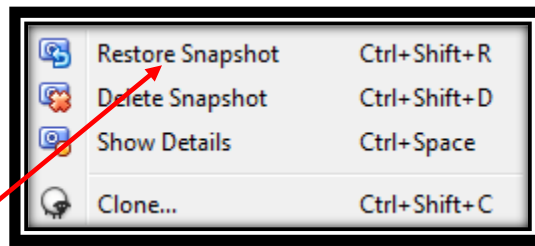
1. Open the Oracle VM VirtualBox manager by double clicking this icon on your desktop:



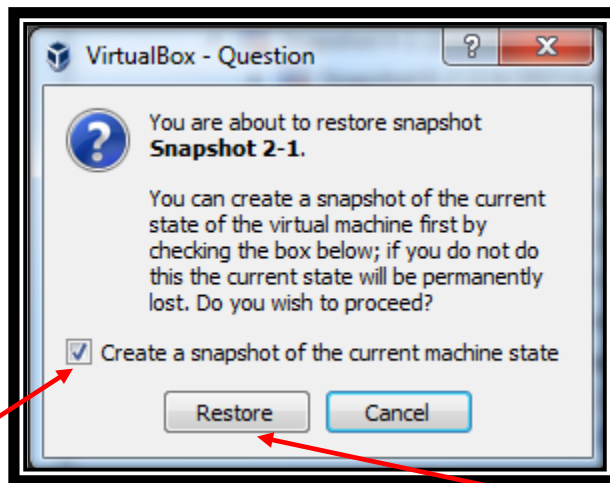
2. Click "Snapshots" in the top right of the Oracle VM Virtualbox Manager.



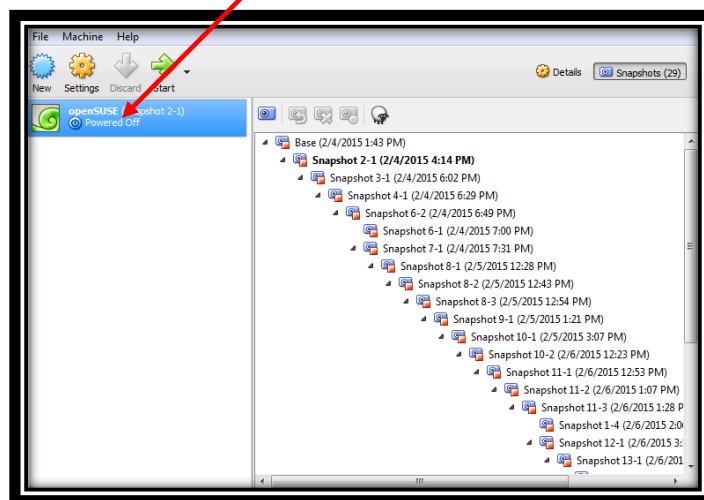
3. In the right side box populated with snapshots scroll up and find the one titled "Snapshot 2-1" and right click on it. The following box should appear:



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. Use tail to view the last lines of your /var/log/messages file and then redirect the standard output to a text file in your home directory by entering **tail /var/log/messages 1> lastlines**.
11. Enter **ls l*** and verify that the lastlines file was created.
12. Use the cat command to view the lastlines file by entering **cat lastlines** at the shell prompt.
13. Append that last lines of the content of your /var/log/firewall log file to lastlines by entering **tail /var/log/firewall 1>> lastlines** at the shell prompt.
14. Use the cat command to view the lastlines file again by entering **cat lastlines** at the shell prompt.
15. You should see the lines from the firewall log file added to the end of the file.
16. Send standard error to a log file by entering **tail /var/log/mylog 2> errorout** at the shell prompt.
17. View the errorout file by entering **cat errorout** at the shell prompt.
18. Why was an error generated by the preceding command?
19. Send the lastlines file to the stdin of the sort command by entering **sort < lastlines** at the shell prompt.
20. The sort command should send the words from the file to the stdout (the screen) in alphabetical order.

--End of Practical Exercise--