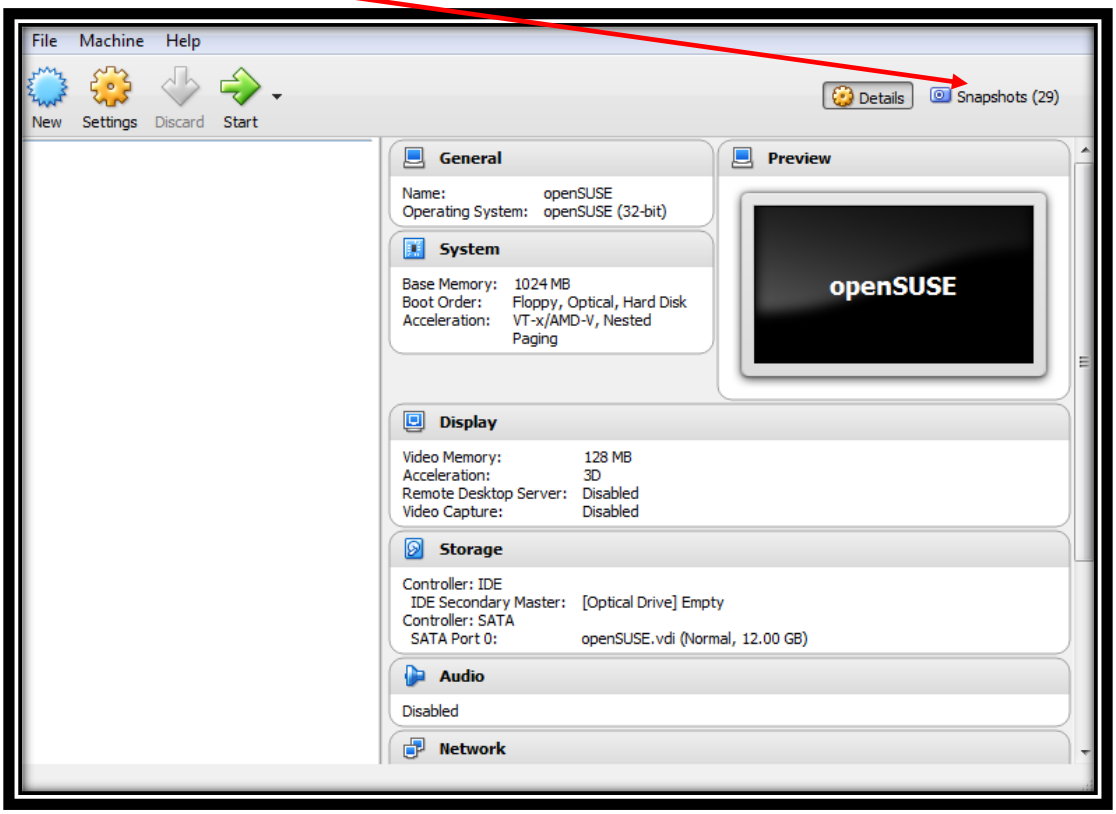
Practical Exercise 6-2: Managing Permissions

This Practical Exercise will have students modifying permissions from the shell prompt using the chmod utility.

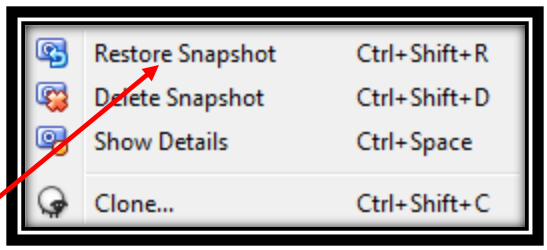
Open VirtualBox and start the openSUSE VM. Run snapshot 11-2 for the correctly configured environment. To run snapshot 11-2:

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

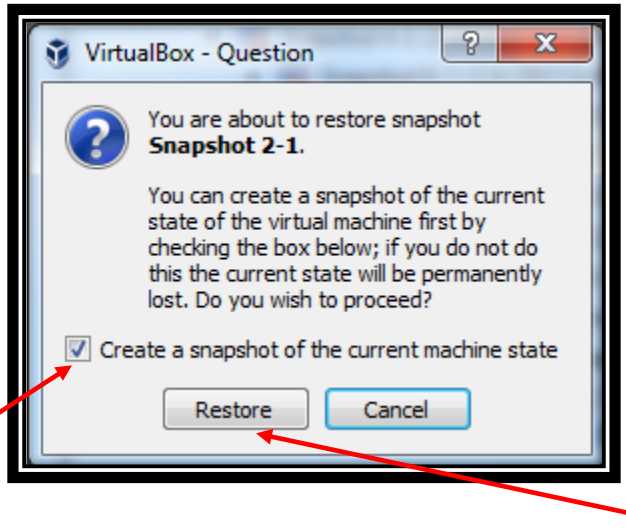
2. Click "Snapshots" in the top right of the Oracle VM Virtualbox Manager.



3. In the right side box populated with snapshots scroll up and find the one titled "Snapshot 11-2" and right click on it. The following box should appear:

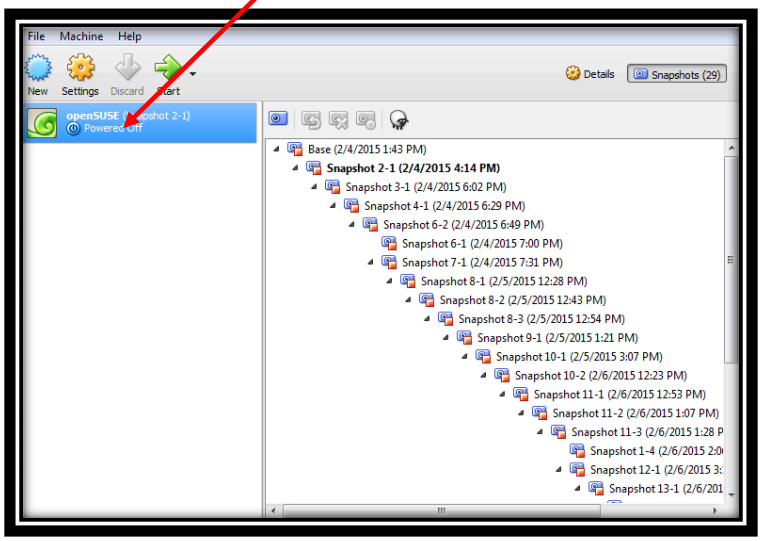


4. Select "Restore Snapshot" and the following pop-up should appear:



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 11-2) 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** to move to the command line shell.

9. At your login prompt, authenticate to the system as the user: **root** and password: **student**.

10. Change to the /RandD directory by entering **cd /RandD** at the shell prompt.

11. Create a design document for your team and restrict access to it by doing the following:

a. Create a new file named design_doc.odt by entering **touch design_doc.odt** at the shell prompt.

b. At the shell prompt, enter **ls –l**. Notice that the root user account and the root group are the owners of the new file.

c. Change ownership of the file to your student user account and the research group using the chown command. Enter **chown student design_doc.odt**.

d. Enter **ls –l** again at the shell prompt. Verify that ownership of the file directory has changed to your student user account and the research group. Notice that Owner has rw– permissions to the file, but Group only has r-- permission.

e. Grant Group rw– permissions by entering **chmod g+w design_doc.odt** at the shell prompt.

f. Enter **ls –l** again at the shell prompt. Notice that Owner and Group now both have read/write access to the file.

g. Notice that Others has read access to the file. You need to keep this document confidential, so remove this access by entering **chmod 660 design_doc.odt** at the shell prompt.

h. Enter **ls –l** again. Verify that Others has no permissions to this file.

12. Next, you need to control access to the research directory itself using permissions. Do the following:

a. Enter **cd ..** at the shell prompt.

b. Enter **ls –l** at the shell prompt. Notice that Owner has full access to the RandD directory, but Group is missing the write permission to the directory. Also notice that Others can read the directory contents (r) and can enter the directory (x).

c. Grant Group full access to the directory and remove Others access to the directory completely by entering **chmod 770 RandD** at the shell prompt.

d. Enter **ls –l** at the shell prompt. Verify that Owner and Group have full access whereas Others has no access.

--End of Practical Exercise--