

CAP 454: LINUX AND SHELL SCRIPTING - LABORATORY

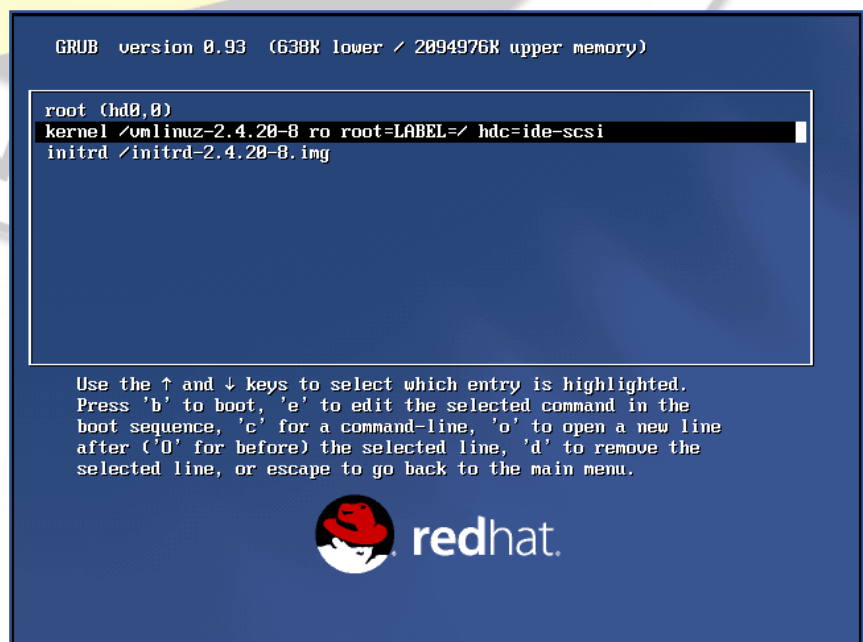
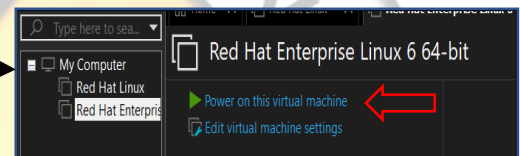
CONTINUOUS ASSESSMENTS (C.A)-2

ST_NAME: - EKHLAKH AHMAD
REG NO.: - 12209166
ROLL NO.: - RD2215B67
SECTION: - D2215
GROUP: - 2

Q. How to change root Password?

Process: -

- ☞ Open VMWare.
- ☞ Select RedHat Linux form left pane.
- ☞ Click on “power on this virtual machine”.
- ☞ Some Process are running.
- ☞ Then a dialog box open.
- ☞ Press Ctrl + G and then press e. (Quickly)
- ☞ Again, open a dialog box open.
- ☞ Select 2nd option with Arrow key and Press e.



☞ Again, then a dialog box will be open.

☞ After text “scsi” type space and 1.

☞ Then press Enter key.

☞ Again, dialog box will be open.

☞ Press b (for booting).

☞ New window will be open.

☞ Type “passwd” then enter key. Or,

☞ Type “passwd” space username.

☞ Press enter key.

☞ Type password as you need.

☞ ReEnter your password.

☞ Press Enter key.

☞ Password Updated successfully.

```
[ Minimal BASH-like line editing is supported. For the first word, TAB
lists possible command completions. Anywhere else TAB lists the possible
completions of a device/filename. ESC at any time cancels. ENTER
at any time accepts your changes.]

grub edit> kernel /vmlinuz-2.4.28-8smp ro root=LABEL=/ hdc=ide-scsi 1
```



GRUB version 0.93 (638K lower / 2894976K upper memory)

```
root (hd0,0)
kernel /vmlinuz-2.4.28-8smp ro root=LABEL=/ hdc=ide-scsi 1
initrd /initrd-2.4.28-8smp.img
```

Use the ↑ and ↓ keys to select which entry is highlighted.
Press 'b' to boot, 'e' to edit the selected command in the
boot sequence, 'c' for a command-line, 'o' to open a new line
after ('o' for before) the selected line, 'd' to remove the
selected line, or escape to go back to the main menu.

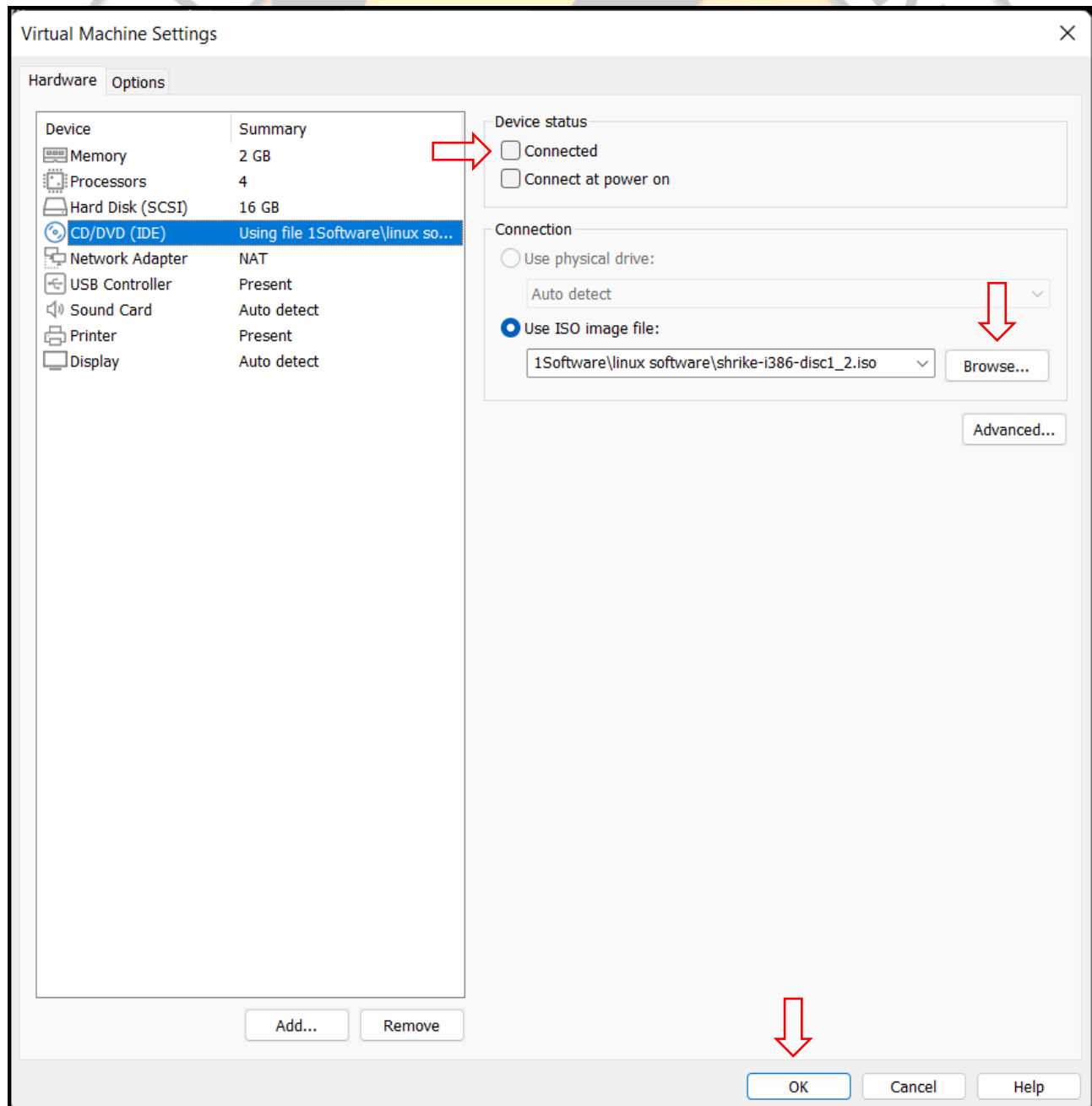


```
Loading keymap: [ OK ]
Loading system font: [ OK ]
Telling INIT to go to single user mode.
INIT: Going single user
INIT: Sending processes the TERM signal
INIT: Sending processes the KILL signal
sh-2.05b# passwd ekhlakh
Changing password for user ekhlakh.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
sh-2.05b# _
```

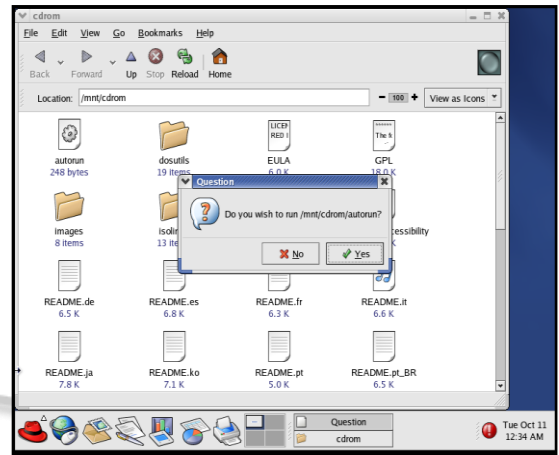
Q. How to install RedHat package(RPM)?

Process: -

- ☞ Open Linux. And Login root user.
- ☞ Click on VM → Removable Devices → CD/DVD(IDE) → Settings.
- ☞ Check connected check box.
- ☞ Click on Browse...
- ☞ Select CD1/CD2/CD3.
- ☞ Click on ok button.



- ☞ Then a dialog box will be open in GUI base.
- ☞ Click on No button.
- ☞ Select RedHat.
- ☞ Select RPM.
- ☞ Select any package.
- ☞ And copy location/path of package.
- ☞ Open new Terminal.
- ☞ Type rpm -ivh and paste file path then press enter key.



i for install.

v for verbose.

h for hash.

If your file name is “foo-1.0-1.i386.rpm. // name(foo), version(1.0), release(1), architecture (i386).

i for installing // rpm -ivh package_name.// rpm -ivh -replacepkgs package_name.

e for Uninstalling // rpm -e package_name.

U for Upgrading an installed package. // rpm -Uvh package_name

q for Querying.

V for Verifying.

F for upgrade only existing package.

rpm -Fvh package_name. // upgrade only existent packages upgraded.

rpm -Fvh *.rpm //

rpm -q package_name. // display package name, version, and release no.

rpm -qa // show list all installed package.

rpm -q httpd(package_name). // cheking if a package is installed or not.

rpm -ql httpd(package_name).// list all the files for a package.

rpm -Va // verify all installed package throughout the system.

rpm -Vp // if you suspect your databases are currept.

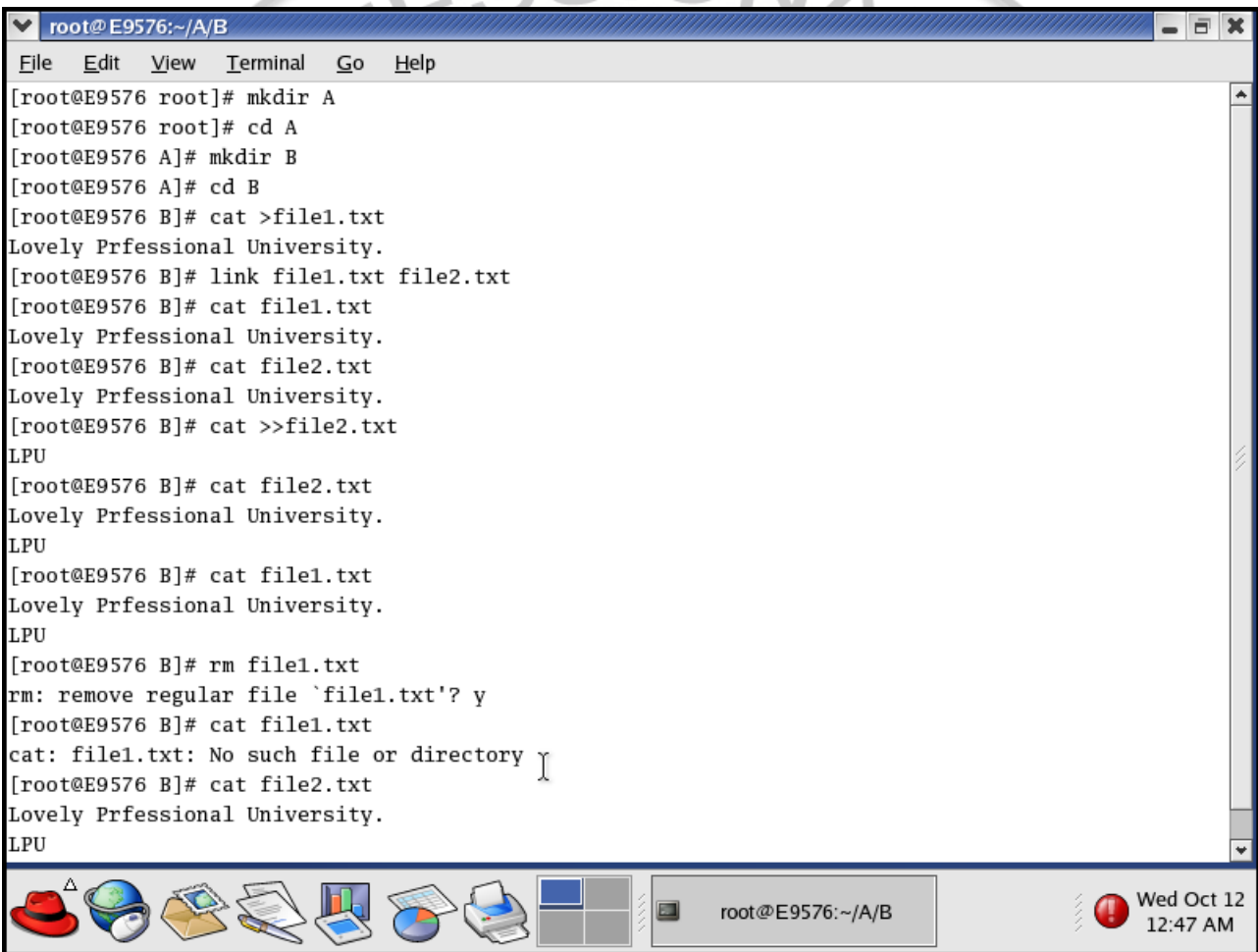
rpm -ivh --replacefiles package_name. // if show error bar, ignore this error.

rpm -help or man rpm // see about of rpm package uses.

Q. How to create Hard link.

Process: -

- ☞ Open Linux. And Login root user.
- ☞ A hard link is a direct link to the data on disk.
- ☞ If original file is deleted then also see your hard link files.
- ☞ Hard link command is only type "link".



```
root@E9576:~/A/B
File Edit View Terminal Go Help
[root@E9576 root]# mkdir A
[root@E9576 root]# cd A
[root@E9576 A]# mkdir B
[root@E9576 A]# cd B
[root@E9576 B]# cat >file1.txt
Lovely Professional University.
[root@E9576 B]# link file1.txt file2.txt
[root@E9576 B]# cat file1.txt
Lovely Professional University.
[root@E9576 B]# cat file2.txt
Lovely Professional University.
[root@E9576 B]# cat >>file2.txt
LPU
[root@E9576 B]# cat file2.txt
Lovely Professional University.
LPU
[root@E9576 B]# cat file1.txt
Lovely Professional University.
LPU
[root@E9576 B]# rm file1.txt
rm: remove regular file `file1.txt'? y
[root@E9576 B]# cat file1.txt
cat: file1.txt: No such file or directory
[root@E9576 B]# cat file2.txt
Lovely Professional University.
LPU
```

The screenshot shows a terminal window with a menu bar (File, Edit, View, Terminal, Go, Help) and a title bar (root@E9576:~/A/B). The terminal output shows the creation of directory A, then subdirectory B. A file 'file1.txt' is created in B with the content 'Lovely Professional University.'. Then, a hard link 'file2.txt' is created from 'file1.txt'. Both files are shown to have the same content. Finally, 'file1.txt' is removed, and the terminal shows an error message 'cat: file1.txt: No such file or directory' when attempting to view it, while 'file2.txt' still contains the original content. The taskbar at the bottom includes various application icons and a system tray showing the date and time (Wed Oct 12 12:47 AM).

Q. How to create soft link.

Process: -

- ☞ Open Linux. And Login root user.
- ☞ A symbolic link does not link directly to the data on disk but to another link to the data on disk.
- ☞ If original files is deleted then can't seen our soft link files.
- ☞ Soft link command is type "ln -s".



```
root@E9576:~/Ekhlakh/Ahmad
File Edit View Terminal Go Help
[root@E9576 root]# mkdir Ekhlakh
[root@E9576 root]# cd Ekhlakh
[root@E9576 Ekhlakh]# mkdir Ahmad
[root@E9576 Ekhlakh]# cd Ahmad
[root@E9576 Ahmad]# cat >Siwan
My dist is Siwan.
[root@E9576 Ahmad]# ln -s Siwan Bihar
[root@E9576 Ahmad]# cat Siwan
My dist is Siwan.
[root@E9576 Ahmad]# cat >>Bihar
My state is Bihar.
[root@E9576 Ahmad]# cat Bihar
My dist is Siwan.
My state is Bihar.
[root@E9576 Ahmad]# cat Siwan
My dist is Siwan.
My state is Bihar.
[root@E9576 Ahmad]# rm -rf Siwan
[root@E9576 Ahmad]# cat Siwan
cat: Siwan: No such file or directory
[root@E9576 Ahmad]# cat Bihar
cat: Bihar: No such file or directory
[root@E9576 Ahmad]#
```

The screenshot shows a terminal window with a menu bar (File, Edit, View, Terminal, Go, Help) and a title bar (root@E9576:~/Ekhlakh/Ahmad). The terminal output shows the user creating a directory structure, creating a file 'Siwan', creating a symbolic link 'Bihar' to 'Siwan', and then deleting 'Siwan'. After deletion, attempts to read 'Siwan' or 'Bihar' result in 'No such file or directory' errors, demonstrating that the symbolic link becomes invalid if the original file is removed.

