CS242

Lab

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Answers For Starter

1. The configuration file, by default is read by LILO. The configuration file tells LILO where it should place its boot loader. In general, you can either specify the master boot record (MBR) on the first physical disk (/dev/hda) or the root partition of your Linux installation (/dev/hda1 or /dev/hda2).

   If you have another operating system installed in your hard drive, it is better to install Lilo to the root partition instead of the MBR. In this case, you must mark the partition as `bootable` using the `a` command of **fdisk** or the `b` command of **cfdisk** . If you don't overwrite the master boot sector you'll find it easier to uninstall Linux and Lilo if needed.

2. Configuration file for Grub2
       /boot/grub/grub.cfg
   And for Grub Legacy is
     /boot/grub/menu.lst

3. We can see default run level using
     cat /etc/init/rc-sysinit.conf
   It's specified by
     env DEFAULT_RUNLEVEL=2
   in that file. Later using
     telinit "${DEFAULT_RUNLEVEL}"
   run level is changed by the same file.

4. ***init*** can be used to change runlevel.
     Example. **init 6** (superuser)

5. We need to change password using
     sudo passwd root
   and unlock root user by
     sudo passwd -u root

```
gagan@gagan-PC:~$ sudo passwd -u root
[sudo] password for gagan:
passwd: unlocking the password would result in a passwordless account.
You should set a password with usermod -p to unlock the password of this account.
gagan@gagan-PC:~$ sudo passwd root
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
gagan@gagan-PC:~$ su root
Password:
root@gagan-PC:/home/gagan# s^C
```

6. We can execute
   echo -e "`date`\n\n`who`\n" >> midnight.log;
   To append in previous log file.
   This command can be inserted for scheduling at
   midnight.
   crontab -e
   Then Appending to it
   **0 0 * * * echo -e "`date`\n\n`who`\n" >>
   midnight.log**

```
-e Sat Jan 16 00:00:01 IST 2016

gagan     :0              2016-01-15 07:58 (:0)
gagan     pts/2           2016-01-15 14:16 (:0)
gagan     pts/4           2016-01-15 19:31 (:0)
gagan     pts/7           2016-01-15 14:17 (:0)
gagan     pts/8           2016-01-15 14:41 (:0)
gagan     pts/9           2016-01-15 15:10 (:0)
gagan     pts/10          2016-01-15 16:22 (:0)

-e Sun Jan 17 00:00:02 IST 2016

gagan     :0              2016-01-16 23:47 (:0)
gagan     pts/1           2016-01-16 23:47 (:0)
gagan     pts/2           2016-01-16 23:47 (:0)
gagan     pts/7           2016-01-16 23:58 (:0)

-e Mon Jan 18 00:00:01 IST 2016

gagan     :0              2016-01-17 23:07 (:0)
gagan     pts/1           2016-01-17 23:07 (:0)
gagan     pts/2           2016-01-17 23:12 (:0)
gagan     pts/6           2016-01-17 23:35 (:0)

-e Tue Jan 19 00:14:41 IST 2016

gagan     :0              2016-01-18 17:24 (:0)
gagan     pts/1           2016-01-18 23:16 (:0)
gagan     pts/2           2016-01-18 21:19 (:0)
gagan     pts/7           2016-01-18 21:22 (:0)
gagan     pts/8           2016-01-18 23:17 (:0)
```

Output of **cat midnight.log** For Sample times.

7. Log Files
   1. **/var/log/dmesg** — General Message Stuff
   2. **/var/log/auth.log** — Authentication Log
   3. This can be used to find only CRON log.
      cat /var/log/syslog | grep CRON
   4. **/var/log/boot.log** and **/var/log/dmesgBoot**
      Info for boot log
   5. **/var/log/wtmp**

Sample Output of C Program

```
+  x      Home: ./a.out                                                                    ⟲

gagan@gagan-PC:~$ ./a.out
CPU Info
---------------------------

Processor 0
        Clock Speed    : 1899.925Mhz
        Cores          : 2Mhz

Processor 1
        Clock Speed    : 1898.515Mhz
        Cores          : 2Mhz

Processor 2
        Clock Speed    : 1900.000Mhz
        Cores          : 2Mhz

Processor 3
        Clock Speed    : 1900.296Mhz
        Cores          : 2Mhz

Kernal Version
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```