

Grub corrupt hogaya ya initramfs corrupt hogaya usko kaise restore karenge woh
saab check karenge

```
[root@Dharam boot]# ls
config-4.18.0-348.el8.x86_64          initramfs-4.18.0-348.el8.x86_64
config-4.18.0-513.5.1.el8_9.x86_64  initramfs-5.4.17-2136.300.7.el8uek.x86_64
config-4.18.0-553.54.1.el8_10.x86_64 initramfs-5.4.17-2136.300.7.el8uek.x86_64
config-5.4.17-2136.300.7.el8uek.x86_64 loader
efi                                   symvers-4.18.0-348.el8.x86_64
grub2                                symvers-4.18.0-513.5.1.el8_9.x86_64
initramfs-0-rescue-720a5c1c2199454190242e23b3f14099.img symvers-4.18.0-553.54.1.el8_10.x86_64
initramfs-4.18.0-348.el8.x86_64.img  symvers-5.4.17-2136.300.7.el8uek.x86_64
initramfs-4.18.0-513.5.1.el8_9.x86_64.img System.map-4.18.0-348.el8.x86_64
[root@Dharam boot]#
```

Abhi mein boot ke andar huu uske andar

config -4. Wala jo file hai usmein boot ke configuration wali file hai

Aur **grub2** ke andar mein configuration file hai aur baki other supportive file uske
andar hai

initramfs ke andar drivers aur kernel modules hote hai jo memory mein load hota
hai booting process ke time par taki humara hardware initialize hoo sake

usmein 3 file hai jo beech wali hai woh main wali file hai

AGAR YEH FILE DELETE HOJAYEE TOH HUMEIN KERNEL PANIC KA ERROR
AATA HAI

Usmein ek aur file hai

initramfs-rescue.img => iska kaam hai hardware aur memory ko load karna kernel ke
hisab se

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Usmein **loader => entries => kuch files** hai rethe hai yeh rescue configuration
files rethe hai

```
[root@Dharam loader]# cd entries/
[root@Dharam entries]# ls
720a5c1c2199454190242e23b3f14099-0-rescue.conf      720a5c1c2199454190242e23b3f14099-4.18.0-348.el8.x86_64.conf
720a5c1c2199454190242e23b3f14099-4.18.0-513.5.1.el8_9.x86_64.conf
720a5c1c2199454190242e23b3f14099-4.18.0-553.54.1.el8_10.x86_64.conf
[root@Dharam entries]#
```

Grub ke configuration file

/boot/grub2/grub.cfg

Agar koie bhe initramfs ke file delete karte hoo toh aise error aata hai reboot karne ke baat

```
error: ../../grub-core/fs/fshelp.c:258:file
'/initramfs-4.18.0-305.3.1.el8.x86_64.img'
not found.

Press any key to continue...
```

Yeh wala error aayega

```
Unknown-Block(0,0)
[ 0.268334] CPU: 0 PID: 1 Comm: swapper/0 Not tainted 5.4.17-2136.300.7.el8ue
k.x86_64 #2
[ 0.268413] Hardware name: VMware, Inc. VMware Virtual Platform/440BX Desktop
Reference Platform, BIOS 6.00 11/12/2020
[ 0.268503] Call Trace:
[ 0.268544] dump_stack+0x6d/0x8b
[ 0.268580] panic+0x101/0x2f4
[ 0.268614] mount_block_root+0x2bc/0x2df
[ 0.268651] ? do_early_param+0x95/0x95
[ 0.268693] mount_root+0x7c/0x7f
[ 0.268728] prepare_namespace+0x139/0x171
[ 0.268769] kernel_init_freeable+0x24f/0x275
[ 0.268812] ? rest_init+0xb0/0xb0
[ 0.268848] kernel_init+0xe/0x109
[ 0.268883] ret_from_fork+0x24/0x36
[ 0.268934] Kernel Offset: 0xba00000 from 0xffffffff81000000 (relocation rang
e: 0xffffffff80000000-0xffffffffbfffffff)
[ 0.269033] ---[ end Kernel panic - not syncing: VFS: Unable to mount root fs
on unknown-block(0,0) ]---
```

Means jo bhe humare hardware ko initialize karne k liye drivers aur modules jarurui thaa woh nhi hai woh ram mein load nhi hoo sakee ku ke **initramfs ke** file waha nhi hai ya toh corrupt hoo chuki hai

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TOh kernel ko abhi **rescue** mode se boot karna hogaa

```
Oracle Linux Server 8 (5.4.17-2136.300.7.el8uek.x86_64)
Oracle Linux Server (4.18.0-348.el8.x86_64) 8.5
Oracle Linux Server 8 (0-rescue-d69af15387a6481685e6c810249fdc36)
```

Use the ↑ and ↓ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.

Toh rescue mode se machine jo hai woh bootup hoojayege

Uske baad then go to cd /boot

```
[root@localhost boot]# ll
total 174556
-rw-r--r--. 1 root root 193907 Nov 11 2021 config-4.18.0-348.el8.x86_64
-rw-r--r--. 1 root root 217896 Oct 9 2021 config-5.4.17-2136.300.7.el8uek.x86_64
drwxr-xr-x. 3 root root 17 Jun 24 21:17 efi
drwx-----. 4 root root 83 Jun 24 21:36 grub2
-rw-----. 1 root root 107170069 Jun 24 21:28 initramfs-0-rescue-dda33c2bdaeb438aa71916c4fca78cb4.img
-rw-----. 1 root root 31532544 Jun 24 21:30 initramfs-5.4.17-2136.300.7.el8uek.x86_64kdump.img
drwxr-xr-x. 3 root root 21 Jun 24 21:20 loader
lrwxrwxrwx. 1 root root 45 Jun 24 21:21 symvers-4.18.0-348.el8.x86_64.gz -> /lib/modules/4.18.0-348
lrwxrwxrwx. 1 root root 55 Jun 24 21:24 symvers-5.4.17-2136.300.7.el8uek.x86_64.gz -> /lib/modules/
-rw-----. 1 root root 4258248 Nov 11 2021 System.map-4.18.0-348.el8.x86_64
-rw-----. 1 root root 4440630 Oct 9 2021 System.map-5.4.17-2136.300.7.el8uek.x86_64
-rwxr-xr-x. 1 root root 10348096 Jun 24 21:27 vmlinuz-0-rescue-dda33c2bdaeb438aa71916c4fca78cb4
-rwxr-xr-x. 1 root root 10212912 Nov 11 2021 vmlinuz-4.18.0-348.el8.x86_64
-rwxr-xr-x. 1 root root 10348096 Oct 9 2021 vmlinuz-5.4.17-2136.300.7.el8uek.x86_64
[root@localhost boot]#
```

File delete kiya abhi sirf rescue aur kdump dekehe gaa initramfs wala

Agar rescue wala bhe delete hogaya retha toh uske bhe nhi boot kar pate hum
log

Fir ISO se karna padta boot

Abhi woh file jo hai initramfs wala usko regenerate karna hogaa

FIRST check the kernel version by

uname -r

```
[root@localhost boot]# uname -r
5.4.17-2136.300.7.el8uek.x86_64
[root@localhost boot]#
```

Initramfs ko regenerate kare k liye dracut command run kar padega
dracut aur kernel ka version.img

dracut -v **initramfs- 5.4.17-2136.300.7.el8uek.x86_64.img** 5.4.17-
2136.300.7.el8uek.x86_64

Yeh command initram fs ke image ko regenerate karna start kar degaa

```

dracut: *** Including modules done ***
dracut: *** Installing kernel module dependencies ***
dracut: *** Installing kernel module dependencies done ***
dracut: *** Resolving executable dependencies ***
dracut: *** Resolving executable dependencies done ***
dracut: *** Hardlinking files ***
dracut: *** Hardlinking files done ***
dracut: *** Generating early-microcode cpio image ***
dracut: *** Constructing GenuineIntel.bin ***
dracut: *** Store current command line parameters ***
dracut: *** Stripping files ***
dracut: *** Stripping files done ***
dracut: *** Creating image file '/boot/5.4.17-2136.300.7.el8uek.x86_64.img' ***
dracut: *** Creating initramfs image file '/boot/5.4.17-2136.300.7.el8uek.x86_64.img' ***
[root@localhost boot]#

```

AGAR mere initramfs ke file hai aur woh corrupted hai toh usko override karne ke liye same command sirf - -force lagana

```

dracut -v initramfs-5.4.17-2136.300.7.el8uek.x86_64.img 5.4.17-2136.300.7.el8uek.x86_64 - -force

```

Isse yeh thik hojayegaa lekin jo command rahega woh

```

dracut -v --force initramfs- 5.4.17-2136.300.7.el8uek.x86_64.img 5.4.17-2136.300.7.el8uek.x86_64

```

Yeh wala command hai

Uske baad reboot marke dekhnaa woh first wale se login hogaa

Ek aur hai **mkinitrd** jis se hum initramfs ke file generate kar sakte hai

```

mkinitrd -v --force initramfs-5.4.17-2136.300.7.el8uek.x86_64.img 5.4.17-2136.300.7.el8uek.x86_64

```

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SECOND CASE ⇒ abhi mein /boot/grub2 ke andar grub.cfg ke file hai usko delete kar ke dekhna hai

```

[root@localhost boot]# cd grub2
[root@localhost grub2]# ls
device.map  fonts  grub.cfg  grubenv  i386-pc
[root@localhost grub2]# rm -rf grub.cfg
[root@localhost grub2]# ls
device.map  fonts  grubenv  i386-pc
[root@localhost grub2]#

```

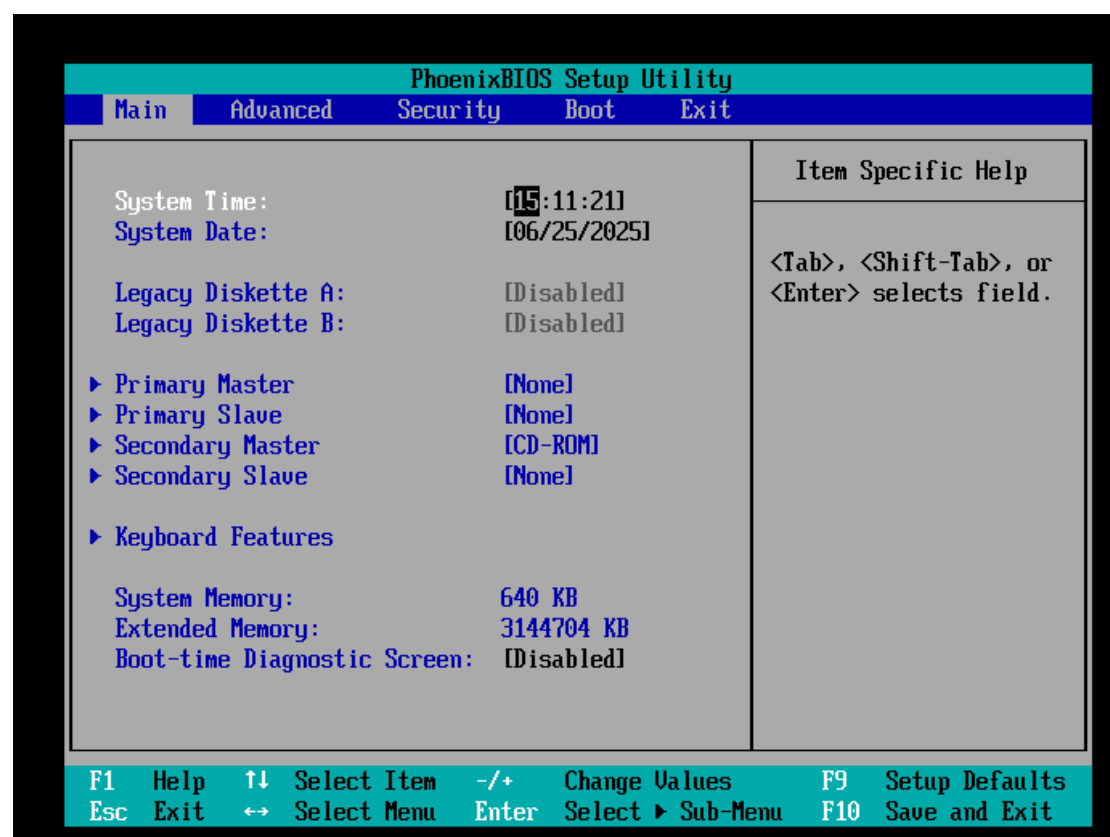
Ya toh sabse worst case /boot ke anadar jo **grub2** ke directory hai woh he delete hoajyee

Woh grub2 ke folder ko delete karne ke baad reboot lene ke baad aise aayega grub menu

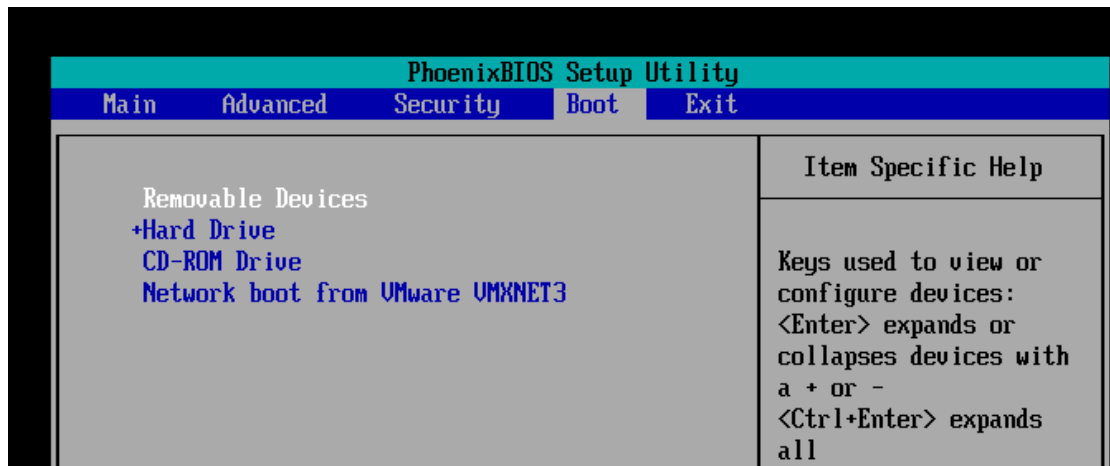
```
..
error: ../../grub-core/fs/fshelp.c:258:file '/grub2/i386-pc/normal.mod' not found.
Entering rescue mode...
grub rescue>
```

Abhi hum isko theek karne k liyee **iso se boot karne hogaa jiss humne yeh machine banyaa thaa same iso see**

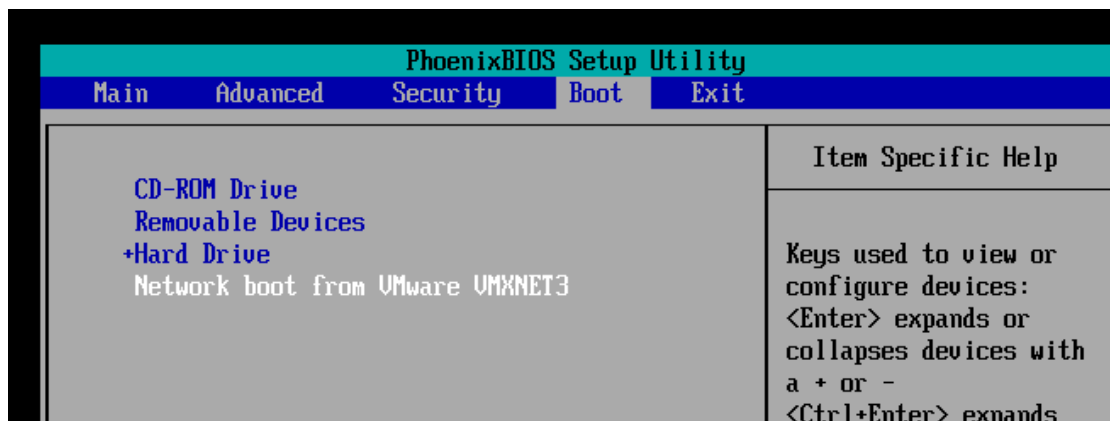
Abhi mujhe BIOS ke anadar jana hooga uske liyee



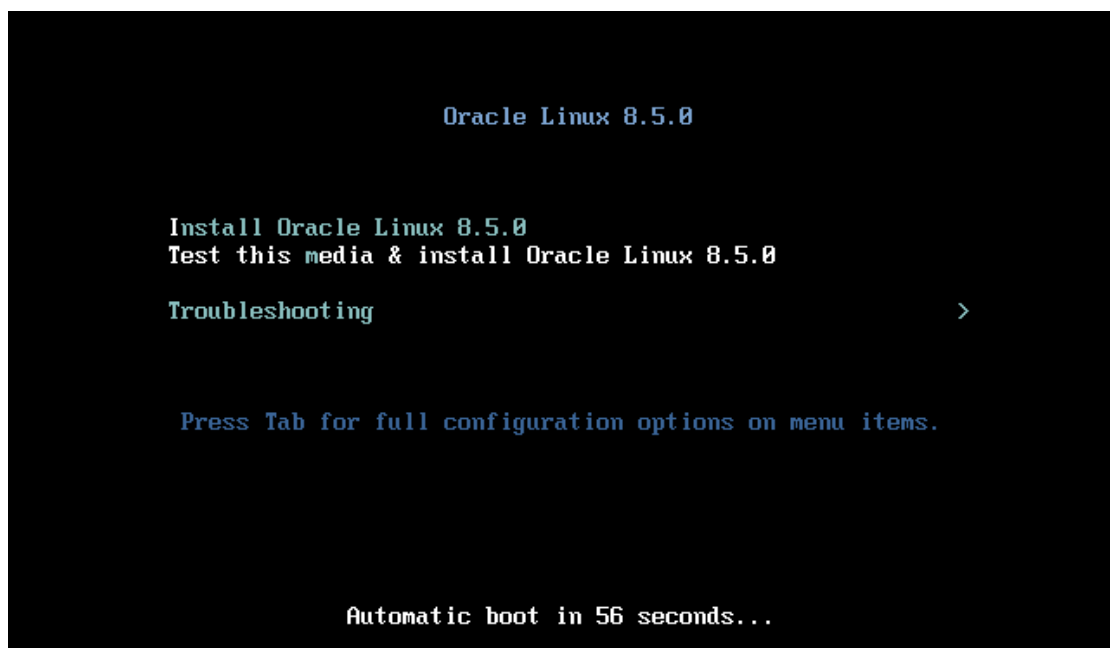
Yeh BIOS hai Uske anadar BOOTING priorities ko change karna hoga
By default aise rahega



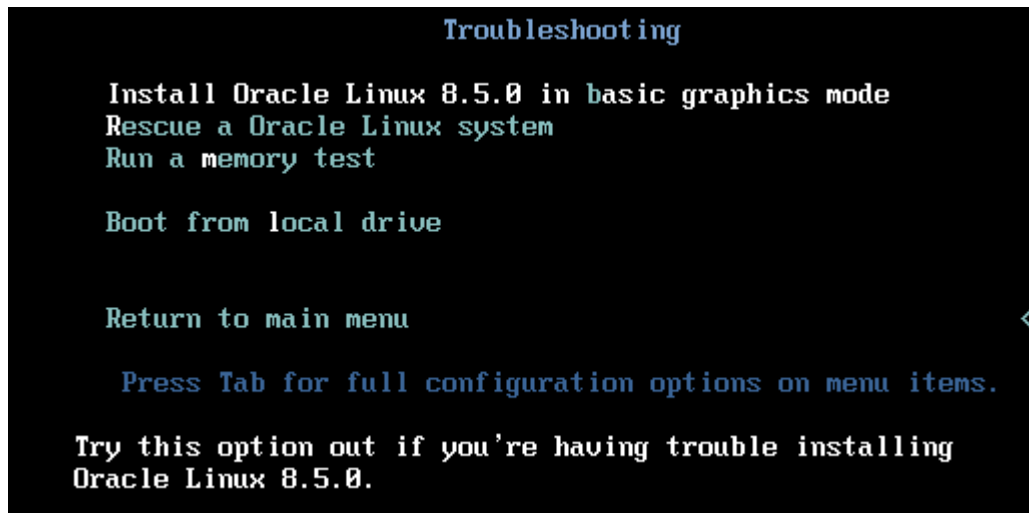
Usko change karna hai CD-ROM drive ko upar lekar jana hai using SHIFT aur + key press karke



Aur changes ko save kar leegee



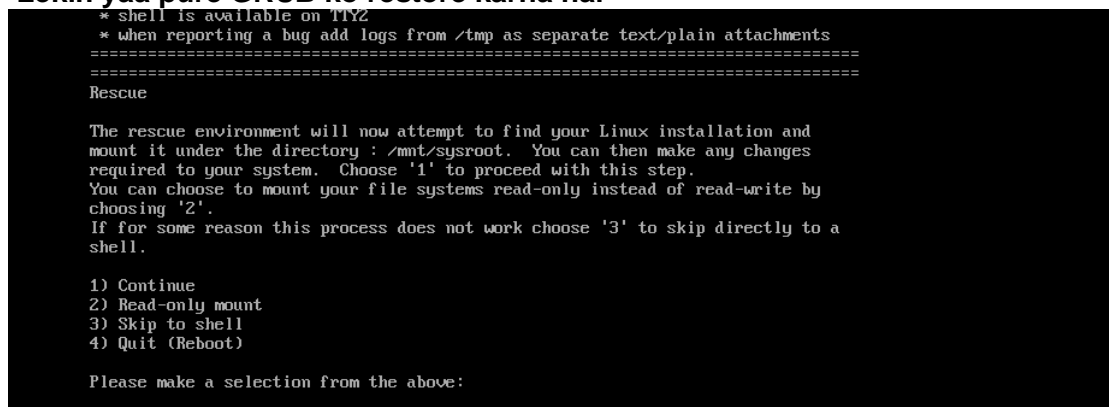
Aise aayega
Abhi Arrow keys ke help se choose **troubleshooting** option



Uske baad humko rescue karne hai system ko uske liye choose
Rescue a oracle Linux system

Abhi jo machine hai woh ISO image se boot hogii
Toh yeh bahut saree options deta hai ke kaise boot karna hai ke shell se karna hai

Lekin yaa pure GRUB ko restore karna hai



Hume sytem mein changes karna hai uske liye hum option 1.**Continue** select karege

Uske baad hum shell ko acces kar payege

```
3) Skip to shell
4) Quit (Reboot)

Please make a selection from the above: 1

^[[A^[[A=====
=====
Rescue Shell

Your system has been mounted under /mnt/sysroot.

If you would like to make the root of your system the root of the active system,
run the command:

    chroot /mnt/sysroot

When finished, please exit from the shell and your system will reboot.
Please press ENTER to get a shell: sh-4.4#
sh-4.4#
sh-4.4#
[anaconda1:main* 2:shell 3:log 4:storage-log 5:program-log Switch tab: Alt+T]
```

Pehle make sure karege humare operating system jo **mnt ke anadar sysimage mounted hai**

Uske baad

chroot /mnt/sysimage ⇒ yeh mere directory change karta hai root ke

Yeh isliye chala rahe hai taki iske anadar changes kar payee

Jaise yeh command run karege BASH shell start hogaa

```
nvme0n1p1 259:1 0 2G 0 pa
nvme0n1p2 259:2 0 23G 0 pa
ol-root 253:2 0 22G 0 lo
ol-swap 253:3 0 1G 0 lo

sh-4.4#
sh-4.4#
sh-4.4# chroot /mnt/sysimage/
bash-4.4#
[anaconda1:main* 2:shell 3:log]
```

Abb operating system ke files ko acces kar payege

Toh pehle GRUB ke direcotory ko he delete kar diya thaa toh pehle usko restore karna padega

Toh grub ko install karna padega

grub2-install /dev/nvme0n1

```
bash-4.4#
bash-4.4# grub2-install /dev/nvme0n1
Installing for i386-pc platform.
Installation finished. No error reported.
bash-4.4#
[anaconda1:main* 2:shell 3:log 4:storage]
```

Abhi grub ke configuration files ko generate karna hogaa

grub2-mkconfig -o /boot/grub2/grub.cfg ⇒ yeh command cfg mein jo bhe changes hai usko refresh karta hai


```

bash-4.4#
bash-4.4# grub2-mkconfig -o /boot/grub2/grub.cfg
Generating grub configuration file ...
done
bash-4.4#
[anaconda]1:main* 2:shell 3:log 4:storage-log 5:

```

ABhi chiaye toh exit kar sakte hai lekin **SELINUX** ke directory aur files ke context ka Re-labeling karege

`touch /.autorelabel`

Yeh karna jaruri hai warna machine bootup nhi hogaa

Agar yeh file yaha present retha hai toh sare SELINUX file context RE_LABEL hojate hai

```

bash-4.4# grub2-mkconfig -o /boot/
Generating grub configuration file
done
bash-4.4# touch /.autorelabel
bash-4.4#
[anaconda]1:main* 2:shell 3:log

```

Abhi uske baad 2 baar exit

Uske baad machine boot karte hai normally

Uske baad jo humare prorities change karege jo pehle kiya thaa usmein harddrive ko upar karege aur cdrom ko neche



Uske baad save & exit

Uske baad main wali kernel se he boot karege jo pehle aayega

```
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Oracle Linux Server 8 (0-rescue-d69af15387a6481685e6c810249fdc36)
```

Use the ↑ and ↓ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.

Yeh hone ke baad relabelling hogii

```
[ 5.952098] selinux-autorelabel[747]: *** system size and speed of hard drives.
[ 33.984089] selinux-autorelabel[747]: Warning: Skipping the following R/O filesystems:
[ 33.984297] selinux-autorelabel[747]: /sys/fs/cgroup
[ 33.984875] selinux-autorelabel[747]: Relabeling / /boot /dev /dev/hugepages /dev/mqueue /dev/pts
/dev/shm /run /sys /sys/fs/cgroup/blkio /sys/fs/cgroup/cpu,cpuacct /sys/fs/cgroup/cpuset /sys/fs/cg
roup/devices /sys/fs/cgroup/freezer /sys/fs/cgroup/hugetlb /sys/fs/cgroup/memory /sys/fs/cgroup/net_
cls,net_prio /sys/fs/cgroup/perf_event /sys/fs/cgroup/pids /sys/fs/cgroup/rdma /sys/fs/cgroup/system
d /sys/fs/pstore /sys/kernel/debug /sys/kernel/tracing
-
```

Ismein time jayegaa

Uske baad machine chalu hoojayegaa



Password:

Cancel

Unlock

Log in as another user

