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Identifying File Systems and Devices:
```

```
[root@naggar-Inspiron:~]# ls -l /dev/sda
[root@naggar-Inspiron:~]# ls -l /dev/hda
[root@naggar-Inspiron:~]# df -h
[root@naggar-Inspiron:~]# du -h /etc/
[root@naggar-Inspiron:~]# du -hs /etc/
=====
```

```
Mounting and Unmounting File Systems:
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```
[root@naggar-Inspiron:~]# mount /dev/cdrom /media
[root@naggar-Inspiron:~]# blkid
[root@naggar-Inspiron:~]# mount UUID="2015-10-30-11-11-49-00" /media
[root@naggar-Inspiron:~]# umount /media
[root@naggar-Inspiron:~]# cd /media/
[root@master media]# lsof /media/
=====
```

```
Create archive files and directories with tar (tap archive):
```

```
[root@naggar-Inspiron:~]# tar cvf archive.tar file1 file2 file3
[root@naggar-Inspiron:~]# tar tf archive.tar                (list tar file
content)

[root@naggar-Inspiron:~]# tar -cvf etc.tar /etc/             (requires root
privilege)
[root@naggar-Inspiron:~]# tar -cf /root/etc.tar /etc/
[root@naggar-Inspiron:~]# du -hs /etc/                      (show the disk usage
for a file)
[root@naggar-Inspiron:~]# ll -h etc.tar

c (create an archive)
f file name (file name of the archive to operate on)
v (verbosity; useful to see which files get added to or extracted from the archive)
```

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List contents of a tar archive:
```

```
[root@naggar-Inspiron:~]# tar tf archive.tar
[root@naggar-Inspiron:~]# tar tvf archive.tar
```

```
t ( list the contents of an archive)
=====
```

```
Extract an archive created with tar:
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```
[root@naggar-Inspiron:~]# tar xvf archive.tar
[root@naggar-Inspiron:~]# tar xvf archive.tar -C /var/data/ (change the extract
location and should be at the end of the command)
```

```
x (extract an archive)
=====
```

```
Create a compressed tar archive:
```

```
[root@naggar-Inspiron:~]# tar cvzf etc.tar.gz /etc/
Or
[root@naggar-Inspiron:~]# tar cvzf etc.tgz /etc/
```

```
z for gzip compression (filename.tar.gz or filename.tgz)
j for bzip2 compression (filename.tar.bz2)
J for xz compression (filename.tar.xz)
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```

```
Extract a compressed tar archive:
```

```
[root@naggar-Inspiron:~]# tar xvzf etc.tar.gz
[root@naggar-Inspiron:~]# tar xvjf etc.tar.bz2
[root@naggar-Inspiron:~]# tar xvJf etc.tar.xz
```

Note:

- Listing a compressed tar archive works in the same way as listing an uncompressed tar archive.

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Compress and extract files:

```
[root@naggar-Inspiron:~]# gzip file.text
[root@naggar-Inspiron:~]# gunzip file.text.gz
```

```
[root@naggar-Inspiron:~]# bzip2 file.text
[root@naggar-Inspiron:~]# bunzip2 file.text.bz2
```

```
[root@naggar-Inspiron:~]# xz file.text
[root@naggar-Inspiron:~]# unxz file.text.xz
```

Note:

- Compressing a file will delete it by default.

```
[root@naggar-Inspiron:~]# gzip -c file.text > file.gz          (will not delete the file)
```

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Making Links Between Files:

```
[root@naggar-Inspiron:~]# ln file.txt /demo.txt                (creates a hard link)
[root@naggar-Inspiron:~]# ls -li file.txt /demo.txt            (the same inode number)
```

```
[root@naggar-Inspiron:~]# ln -s /root/file.txt /home/          (creates a soft or symbolic link)
```

```
[root@naggar-Inspiron:~]# ln -s /root/file.txt /home/new.txt
```

```
[root@naggar-Inspiron:~]# ls -li file.txt /home/file.txt      (different inode numbers)
```

```
[root@naggar-Inspiron:~]# file /home/file.txt
```

```
[root@naggar-Inspiron:~]# ln -s /etc/ /root/                  (creates a symbolic link for a directory)
```

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Regex examples:

```
[root@naggar-Inspiron:~]# cat sample | grep ^a
[root@naggar-Inspiron:~]# cat sample | grep t$
[root@naggar-Inspiron:~]# cat sample | grep -E p\{2}
[root@naggar-Inspiron:~]# cat sample | grep "a\+t"
```

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Cron job:

```
[root@naggar-Inspiron:~]# crontab -e          (To add or update job in crontab,)
[root@naggar-Inspiron:~]# crontab -l          (Command to view crontab entries of current user)
```

Simulator >> <https://crontab.guru/>