Task 1

lab_debian.vdi

Task 2

```
[sudo] password for nillia:
$ sudo nano /etc/fstab
```
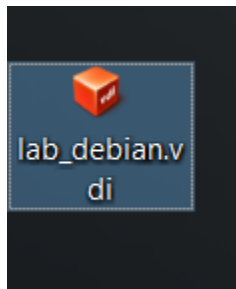


```
                                        illia@debianlab: ~                                    ×

File  Edit  View  Search  Terminal  Help
  GNU nano 3.2                           /etc/fstab                                Modified

# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point>   <type>  <options>       <dump>  <pass>
# / was on /dev/sda1 during installation
UUID=7887ead8-d9da-491e-8cfb-468b84f9408c /              ext4    errors=remount-ro,usrquota,grpquota  0       1
# swap was on /dev/sda5 during installation
UUID=4d1bd54b-bc06-41f2-abe9-a1b7519f71f0 none           swap    sw              0       0
/dev/sr0        /media/cdrom0   udf,iso9660 user,noauto    0       0
```

```
root@debianlab:/home/illia# sudo quotacheck -cum /
root@debianlab:/home/illia# sudo quotaon -v /
quotaon: cannot find //aquota.group on /dev/sda1 [/]
/dev/sda1 [/]: user quotas turned on
root@debianlab:/home/illia#
```

```
                                        illia@debianlab: ~                                    ×

File  Edit  View  Search  Terminal  Help
  GNU nano 3.2                           /tmp//EdP.aPmNqgr

Disk quotas for user nillia (uid 1006):
  Filesystem                  blocks       soft       hard     inodes       soft       hard
  /dev/sda1                        0          0          0          0          0          0
```

```
root@debianlab:/home/illia# sudo edquota -u nillia
root@debianlab:/home/illia# sudo setquota -u nillia 20M 30M 0 0 /
root@debianlab:/home/illia# cd home
bash: cd: home: No such file or directory
root@debianlab:/home/illia# quota -vs nillia
Disk quotas for user nillia (uid 1006):
     Filesystem   space   quota   limit   grace   files   quota   limit   grace
      /dev/sda1     0K  20480K  30720K               0       0       0
```

```
$ cd nillia
$ base64 /dev/urandom | head -c 15M > file.txt
$ base64 /dev/urandom | head -c 10M > file.txt
$ base64 /dev/urandom | head -c 1M > file.txt
$ base64 /dev/urandom | head -c 50M > file.txt
sda1: warning, user block quota exceeded.
sda1: write failed, user block limit reached.
head: error writing 'standard output': Disk quota exceeded
```
```
$ base64 /dev/urandom | head -c 1M >file3.txt
head: error writing 'standard output': Disk quota exceeded
```
```
$ base64 /dev/urandom | head -c 1M >file3.txt
head: error writing 'standard output': Disk quota exceeded
```

Task 4

```
$ base64 /dev/urandom | head -c 1M >file1.txt
$ ls
file1.txt
$ ls -lh
total 1.0M
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:58 file1.txt
$ base64 /dev/urandom | head -c 1M > file2.txt
$ base64 /dev/urandom | head -c 1M > file3.txt
$ base64 /dev/urandom | head -c 1M > file4.txt
$ ls -lh
total 4.0M
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:58 file1.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file2.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file3.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file4.txt
$ tar -cf archive.tar file1.txt file2.txt file3.txt file4.txt
$ ls -lh
total 8.1M
-rw-r--r-- 1 nillia nillia 4.1M Apr 19 17:01 archive.tar
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:58 file1.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file2.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file3.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file4.txt
```

The size of archive is 4.1 because we didn't compress it

Task 5

```
$ tar -czf archivetar.tar file1.txt
$ gzip -k file1.txt
$ ls -lh
total 9.6M
-rw-r--r-- 1 nillia nillia 4.1M Apr 19 17:01 archive.tar
-rw-r--r-- 1 nillia nillia 779K Apr 19 17:09 archivetar.tar
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:58 file1.txt
-rw-r--r-- 1 nillia nillia 779K Apr 19 16:58 file1.txt.gz
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file2.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file3.txt
-rw-r--r-- 1 nillia nillia 1.0M Apr 19 16:59 file4.txt
```

Task 6

```
$ tar -tvf archive.tar
-rw-r--r-- nillia/nillia 1048576 2021-04-19 16:58 file1.txt
-rw-r--r-- nillia/nillia 1048576 2021-04-19 16:59 file2.txt
-rw-r--r-- nillia/nillia 1048576 2021-04-19 16:59 file3.txt
-rw-r--r-- nillia/nillia 1048576 2021-04-19 16:59 file4.txt
$ mkdir extractedfiles
$ tar -c /extractedfiles archive.tar
tar: Refusing to write archive contents to terminal (missing -f option?)
tar: Error is not recoverable: exiting now
$ tar -C extractedfiles archive.tar
tar: You must specify one of the '-Acdtrux', '--delete' or '--test-label' options
Try 'tar --help' or 'tar --usage' for more information.
$ tar -xf archive.tar -C /extractedfiles
tar: /extractedfiles: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now
$ tar -xf archive.tar -C extractedfiles
$ ls extractedfiles
file1.txt  file2.txt  file3.txt  file4.txt
```

Task 7

```
                                                    file4.txt
$ tar -czf archiveabsolute.tar /home/nillia/files/file1.txt /home/nillia/files/file2.txt /home/nillia/files/file3
.txt /home/nillia/files/file4.txt
tar: Removing leading `/' from member names
tar: Removing leading `/' from hard link targets
```

Task 10

```
illia@debianlab:~$ at 19:00
warning: commands will be executed using /bin/sh
at> touch ~/at_testing/created_by
at> <EOT>
job 1 at Mon Apr 19 19:00:00 2021
illia@debianlab:~$ at 19:05
warning: commands will be executed using /bin/sh
at> mkdir hello_world_at
at> <EOT>
job 2 at Mon Apr 19 19:05:00 2021
illia@debianlab:~$ at 19:10
warning: commands will be executed using /bin/sh
at> ls -lh
at> <EOT>
job 3 at Mon Apr 19 19:10:00 2021
illia@debianlab:~$ at
Garbled time
illia@debianlab:~$ atq
1       Mon Apr 19 19:00:00 2021 a illia
2       Mon Apr 19 19:05:00 2021 a illia
3       Mon Apr 19 19:10:00 2021 a illia
```

```
illia@debianlab:~$ atq
1       Mon Apr 19 19:00:00 2021 a illia
2       Mon Apr 19 19:05:00 2021 a illia
3       Mon Apr 19 19:10:00 2021 a illia
illia@debianlab:~$ atrm 2
illia@debianlab:~$ atq
1       Mon Apr 19 19:00:00 2021 a illia
3       Mon Apr 19 19:10:00 2021 a illia
```

```
illia@debianlab:~$ at 19:05 tuesday
warning: commands will be executed using /bin/sh
at> touch humptydumpty.txt
at> <EOT>
job 4 at Tue Apr 20 19:05:00 2021
illia@debianlab:~$ at now +10 minutes
warning: commands will be executed using /bin/sh
at> mkdir sup
at> <EOT>
job 5 at Mon Apr 19 17:47:00 2021
illia@debianlab:~$ atq
4       Tue Apr 20 19:05:00 2021 a illia
1       Mon Apr 19 19:00:00 2021 a illia
5       Mon Apr 19 17:47:00 2021 a illia
3       Mon Apr 19 19:10:00 2021 a illia
```

Task 11

```
@daily touch humptydupmty.txt
00 17 * * FRI touch file.txt
00 00 * 3,6,9,12 * touch file.txt
00 8-17 * * mon-fri touch file.txt
0/5 * * * * touch file.txt
0 0/2 * * * touch file.txt
00 23 * * SUN touch file.txt
```

```
illia@debianlab:~$ crontab -l
@daily touch humptydumpty.txt
00 17 * * FRI touch file.txt
00 00 * 3,6,9,12 * touch file.txt
00 8-17 * * mon-fri touch file.txt
*/5 * * * * touch file.txt
0 */2 * * * touch file.txt
0 23 * * SUN touch file.txt
```