Assignment

1) Create a user called "elvis" who has the full name "elvis martin" with the uid/gid 2120, create a user called "malan" with the full name "malan farid" with the uid/gid 2121

```
[root@localhost manoj]# useradd -u2120 -c 'elvis martin' elvis
useradd: warning: the home directory already exists.
Not copying any file from skel directory into it.
Creating mailbox file: File exists
[root@localhost manoj]# useradd -u2121 -c 'malan farid' malan
[root@localhost manoj]# _
```

2) Change the account settings of elvis to expire after another one month.

```
[root@localhost manoj]#  useradd -e 2017-02-26 alvis
[root@localhost manoj]# chage -E 2017-04-26 alvis
[root@localhost manoj]# clear_
```

```
[root@localhost manoj]# chage -E  2017-03-26 alvis
[root@localhost manoj]# _
```

3) Change the SELinux type to be Enforcing.

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#     enforcing - SELinux security policy is enforced.
#     permissive - SELinux prints warnings instead of enforcing.
#     disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of these three values:
#     targeted - Targeted processes are protected,
#     minimum - Modification of targeted policy. Only selected processes are pro
tected.
#     mls - Multi Level Security protection.
SELINUXTYPE=targeted
~
~
~
~
~
~
~
~
"/etc/selinux/config" 14L, 548C written
[root@localhost manoj]# _
```

4) Create a collaborative place call /commanshare to work for elvis and malan sharing the same group call ourshare.

```
[root@localhost manoj]#  mkdir commonshare
[root@localhost manoj]# groupadd ourshare
[root@localhost manoj]# usermod -aG ourshare malan
[root@localhost manoj]# usermod -aG ourshare alvis
[root@localhost manoj]# chown root:ourshare commonshare
[root@localhost manoj]# _
```

5) For the same directory /commanshare file's created by malan should not be deleted by elvis.

```
[root@localhost /]# chmod g+rw commonshare
[root@localhost /]# su malan
[malan@localhost /]$ ll
total 20
lrwxrwxrwx.   1 root root        7 Feb  3  2016 bin -> usr/bin
dr-xr-xr-x.   4 root root     4096 Feb 25 22:52 boot
drwxrwxr-x.   2 root ourshare    6 Feb 26 02:33 commonshare
drwxr-xr-x.  19 root root     3600 Feb 25 23:52 dev
drwxr-xr-x.  90 root root     8192 Feb 26 02:34 etc
drwxr-xr-x.   6 root root       58 Feb 26 00:45 home
lrwxrwxrwx.   1 root root        7 Feb  3  2016 lib -> usr/lib
lrwxrwxrwx.   1 root root        9 Feb  3  2016 lib64 -> usr/lib64
drwxr-xr-x.   2 root root        6 Feb  3  2016 media
drwxr-xr-x.   2 root root        6 Feb  3  2016 mnt
drwxr-xr-x.   2 root root        6 Feb  3  2016 opt
dr-xr-xr-x. 116 root root        0 Feb 25 23:52 proc
dr-xr-x---.   2 root root      114 Feb 25 22:53 root
drwxr-xr-x.  29 root root      960 Feb 26 00:52 run
lrwxrwxrwx.   1 root root        8 Feb  3  2016 sbin -> usr/sbin
drwxr-xr-x.   2 root root        6 Feb  3  2016 srv
dr-xr-xr-x.  13 root root        0 Feb 25 23:52 sys
drwxrwxrwt.   7 root root      140 Feb 26 02:05 tmp
drwxr-xr-x.  12 root root      144 Feb 25 22:49 usr
drwxr-xr-x.  21 root root     4096 Feb 25 22:54 var
[malan@localhost /]$ _
```

6) Create a mount point call /devdata and mount a 512MB partition with the label "dev" formatted using ext4 file system. Change the group ownership of this /devdata to be group owned by ourshare group. So people on that group should be able to create new files under the /devdata mount point.

7) Create an archive of your tmp directory and store that archive after reducing the size using zip tool under /opt and move a copy to your desktop system to the same /opt location.

```
[root@localhost /]# tar -czf temp.tar.gz tmp
tar: tmp/.esd-1000/socket: socket ignored
tar: tmp/.ICE-unix/1472: socket ignored
tar: tmp/.ICE-unix/1146: socket ignored
tar: tmp/.X11-unix/X1: socket ignored
tar: tmp/.X11-unix/X0: socket ignored
[root@localhost /]# ls
bin   commonshare  devdata  home  lib64  mnt  proc  run   srv  temp.tar.gz  usr
boot  dev          etc      lib   media  opt  root  sbin  sys  tmp          var
[root@localhost /]# cp -pr temp.tar.gz /home/lahiru/opt
[root@localhost /]#
```

8) Create a softlink to access the same archive from /mnt/shortcut

```
[root@localhost /]# mkdir mnt
[root@localhost /]# cd mnt
[root@localhost mnt]# mkdir shortcut
[root@localhost mnt]# cd ..
[root@localhost /]# ln -s temp.tar.gz /mnt/shortcut
[root@localhost /]#
[root@localhost /]#
```

9) Create a 256MB partition and mount it as /smalldata and change the ownership of that mount point to be user owned by elvis. Format the partition using xfs file system.

10) Create a shedule job as super user to run everyday at 5.30 pm to check your disk usage and store those information under /tmp/mydisusage text file.

```
[root@localhost /]# cd etc
[root@localhost etc]# vi crontab
[root@localhost etc]#
```

```
SHELL=/bin/bash
PATH=/sbin:/bin:/usr/sbin:/usr/bin
MAILTO=root

# For details see man 4 crontabs

# Example of job definition:
# .---------------- minute (0 - 59)
# |  .------------- hour (0 - 23)
# |  |  .---------- day of month (1 - 31)
# |  |  |  .------- month (1 - 12) OR jan,feb,mar,apr ...
# |  |  |  |  .---- day of week (0 - 6) (Sunday=0 or 7) OR sun,mon,tue,wed
# |  |  |  |  |
# *  *  *  *  * user-name  command to be executed
30 17 * * * root du /home/manoj >> /tmp/mydiskusage
```

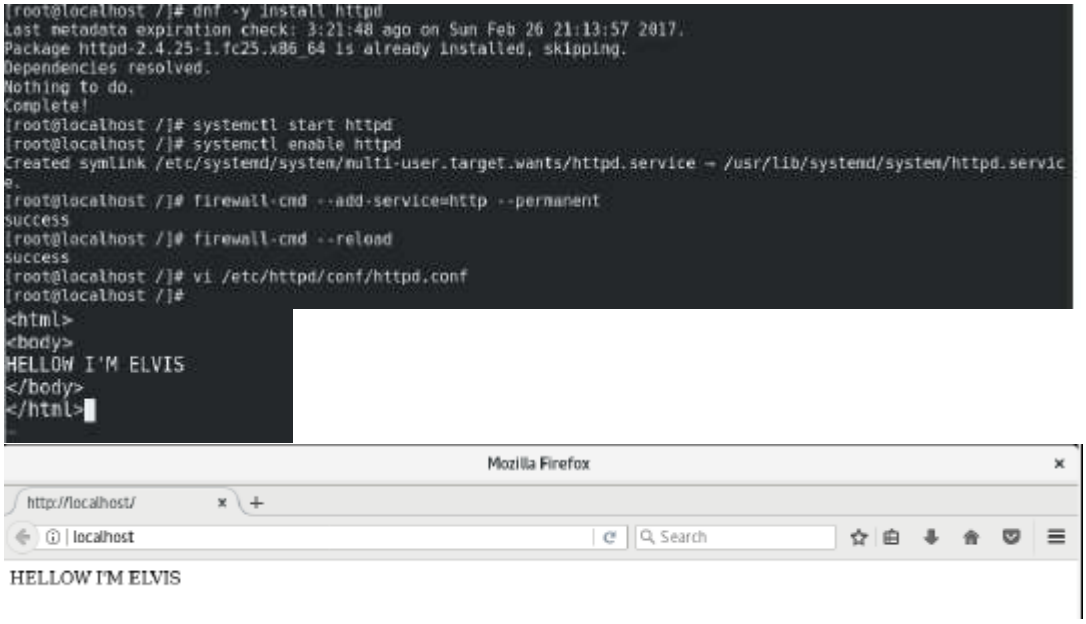
11) Create a user call john and allow that user to write to /devdata directory. Also allow john group with the same permission to the same location

```
[root@localhost /]# useradd jhon
[root@localhost /]# chown jhon:jhon devdata
[root@localhost /]# chmod 661 devdata
[root@localhost /]#
```

12) Create a volume group with the name "examvg" and the size should be 1G. Specify the chunk size(PE size) as 8mib. Under this volume group create a logical volume using 12 chunks and name that as "myvol". Format it using ext4 filesystem and mount as /logicalvol.

```
root@localhost lahiru]# clear
root@localhost lahiru]# fdisk /dev/sdb

elcome to fdisk (util-linux 2.28.2).
hanges will remain in memory only, until you decide to write them.
e careful before using the write command.


ommand (m for help): n
artition type
  p   primary (1 primary, 0 extended, 3 free)
  e   extended (container for logical partitions)
elect (default p): p
artition number (2-4, default 2): 2
irst sector (1050624-16777215, default 1050624): 1550624
ast sector, +sectors or +size{K,M,G,T,P} (1550624-16777215, default 16777215): +1G

reated a new partition 2 of type 'Linux' and of size 1023.9 MiB.

ommand (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

[root@localhost lahiru]# pvcreate /dev/sdb2
  Physical volume "/dev/sdb2" successfully created.
  WARNING: D-Bus notification failed: The name com.redhat.lvmdbus1 was not provided by any .service files
[root@localhost lahiru]# vgcreate examvg /dev/sdb2
  Volume group "examvg" successfully created
  WARNING: D-Bus notification failed: The name com.redhat.lvmdbus1 was not provided by any .service files
[root@localhost lahiru]#
[root@localhost lahiru]# man vgcreate
[root@localhost lahiru]# vgchange -s 8M examvg
  New extent size is not a perfect fit
[root@localhost lahiru]# lvcreate -L 72M -n myvol examvg
  Logical volume "myvol" created.
  WARNING: D-Bus notification failed: The name com.redhat.lvmdbus1 was not provided by any .service files
[root@localhost lahiru]# mkfs.ext4 /dev/mapper/examvg-myvol
mke2fs 1.43.1 (08-Jun-2016)
Creating filesystem with 73728 1k blocks and 18432 inodes
Filesystem UUID: 2ac4fd54-2dac-4e9a-96ee-6a582f456f83
Superblock backups stored on blocks:
        8193, 24577, 40961, 57345

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done

[root@localhost lahiru]# mkdir logicalvol
mount: can't find /dev/mapper/examvg-myvol/logicalvol in /etc/fstab
[root@localhost lahiru]# cd
[root@localhost ~]# cd /
[root@localhost /]# mount /dev/mapper/examvg-myvol/logicalvol
```

13) Install apache web server and expose the below content as default web page "hellow im elvis".



14) Create a logical volume of 100MB called lv_swap2 and add it permanently to the current swap space.

15)Install an FTP server so that users can login anonymously.

```
[root@localhost ~]# dnf -y install vsftpd
Last metadata expiration check: 4:05:32 ago on Sun Feb 26 21:13:57 2017.
Dependencies resolved.
================================================================================
 Package         Arch           Version                 Repository       Size
================================================================================
Installing:
 vsftpd          x86_64         3.0.3-2.fc25            fedora          172 k

Transaction Summary
================================================================================
Install  1 Package

Total download size: 172 k
Installed size: 350 k
Downloading Packages:
vsftpd-3.0.3-2.fc25.x86_64.rpm                 240 kB/s | 172 kB     00:00
--------------------------------------------------------------------------------
Total                                           77 kB/s | 172 kB     00:02
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Installing  : vsftpd-3.0.3-2.fc25.x86_64                                  1/1
  Verifying   : vsftpd-3.0.3-2.fc25.x86_64                                  1/1

Installed:
  vsftpd.x86_64 3.0.3-2.fc25

Complete!
```

```
#
#Sample anonymous FTP server configuration
#
#Mandatory directives
#
listen=YES
local_enable=NO
anonymous_enable=YES
write_enable=NO
anon_root=/var/ftp
#
# Optional directives
#
anon_max_rate=2048000
xferlog_enable=YES
listen_address=192.168.0.100
listen_port=21
~
~
```

```
root@localhost ~]# vi /etc/vsftpd/vsftpd-anon.conf
root@localhost ~]# vsftpd /etc/vsftpd/vsftpd-anon.conf
root@localhost ~]#
```

16) Extend the existing logical volume myvol to be on the size 200MB.

```
[root@localhost /]# lvextend -L 296M /dev/mapper/examvg-myvol
  Size of logical volume examvg/myvol changed from 72.00 MiB (18 extents) to 296.00 MiB (74 extents).
  Logical volume examvg/myvol successfully resized.
  WARNING: D-Bus notification failed: The name com.redhat.lvmdbus1 was not provided by any .service files
[root@localhost /]# resize2fs /dev/mapper/examvg-myvol
resize2fs 1.43.1 (08-Jun-2016)
Resizing the filesystem on /dev/mapper/examvg-myvol to 303104 (1k) blocks.
The filesystem on /dev/mapper/examvg-myvol is now 303104 (1k) blocks long.

[root@localhost /]#
```

17) Create a user called "rhcsatest" , who should not be able to login to the system.

```
[root@localhost /]# useradd -s /sbin/nologin rhcsatest
[root@localhost /]#
```

18)Add a user called "alpha". Find all files owned by user alpha and store those under /root/mybackup

```
[root@localhost /]# adduser alpha
[root@localhost /]# tar -cvpzf /root/mybackup/backup.tar.gz --one-file-system /home/alpha
tar: Removing leading `/' from member names
/home/alpha/
/home/alpha/.bash_logout
/home/alpha/.bash_profile
/home/alpha/.bashrc
/home/alpha/.mozilla/
/home/alpha/.mozilla/extensions/
/home/alpha/.mozilla/plugins/
[root@localhost /]#
```

19)Create two users called "saman" and "nimal". Create a directory called /testqadata. Both users should have write access to /testqadata directory and user saman should have write access to the future files also.

```
[root@localhost /]# useradd saman
[root@localhost /]# mkdir testqadata
[root@localhost /]# chown saman testqadata
[root@localhost /]# chmod u+w testqadata
[root@localhost /]# useradd nimal
[root@localhost /]# setfacl -m u:nimal:w testqadata
[root@localhost /]#
[root@localhost /]#
[root@localhost /]#
[root@localhost /]# getfacl testqadata
# file: testqadata
# owner: saman
# group: root
user::rwx
user:nimal:-w-
group::r-x
mask::rwx
other::r-x
```