LAB-03

PART-F

30-

a)

```
9.2M      /var/log
[yyzvenkata@toronto3267 ~]$ history | grep -E 'df|du'
  124  df
  125  df -h
  126  df -i
  127  df -Th
  128  df -Th /
  129  df -Th /dev
  130  df -Th /run
  133  df -Th /home/yyzvenkata
  134  df -Th /etc
  135  df -Th /var/log
  136  du
  137  du -h
  138  du -sh
  140  du -sh /home/yyzvenkata
  141  du -sh /etc
  142  du -sh /varlog
  143  du -sh /var/log
  144  history | grep -E 'df|du'
[yyzvenkata@toronto3267 ~]$
```

CONTINUE TO NEXT PAGE

33-

a)

```
[yyzvenkata@toronto3267 ~]$ lsblk
NAME                      MAJ:MIN RM   SIZE RO TYPE MOUNTPOINT
sda                           8:0  0    32G  0 disk
├─sda1                        8:1  0     1G  0 part /boot
└─sda2                        8:2  0    31G  0 part
  ├─rhel-root               253:0  0  27.8G  0 lvm  /
  └─rhel-swap               253:1  0   3.2G  0 lvm  [SWAP]
sdb                          8:16  0   100M  0 disk
└─sdb1                       8:17  0    99M  0 part /finance
sdc                          8:32  0   300M  0 disk
├─sdc1                       8:33  0   200M  0 part /logistics
├─sdc2                       8:34  0    99M  0 part /purchases
└─sdc3                       8:35  0  1007K  0 part
sdd                          8:48  0   400M  0 disk
├─sdd1                       8:49  0    80M  0 part /tech
├─sdd2                       8:50  0   150M  0 part /databases
└─sdd3                       8:51  0   169M  0 part /apps
sde                          8:64  0   250M  0 disk
├─vg--media-lv--music       253:2  0   300M  0 lvm  /music
└─vg--media-lv--videos      253:3  0   148M  0 lvm  /videos
sdf                          8:80  0   350M  0 disk
└─vg--media-lv--music       253:2  0   300M  0 lvm  /music
sdg                          8:96  0     5G  0 disk
sdh                         8:112  0     1G  0 disk
sr0                          11:0  1  1024M  0 rom
[yyzvenkata@toronto3267 ~]$
```

b)

```
[yyzvenkata@toronto3267 ~]$ df -Th
Filesystem                    Type      Size  Used Avail Use% Mounted on
devtmpfs                      devtmpfs  1.8G     0  1.8G   0% /dev
tmpfs                         tmpfs     1.9G     0  1.9G   0% /dev/shm
tmpfs                         tmpfs     1.9G   18M  1.9G   1% /run
tmpfs                         tmpfs     1.9G     0  1.9G   0% /sys/fs/cgroup
/dev/mapper/rhel-root         xfs        28G   15G   13G  54% /
/dev/sda1                     xfs      1014M  254M  761M  26% /boot
tmpfs                         tmpfs     374M   40K  374M   1% /run/user/1001
/dev/sdd1                     xfs        75M  4.8M   70M   7% /tech
/dev/sdd2                     xfs       145M  8.8M  136M   7% /databases
/dev/sdd3                     xfs       164M  9.9M  154M   7% /apps
/dev/mapper/vg--media-lv--music  xfs    295M  7.9M  287M   3% /music
/dev/mapper/vg--media-lv--videos xfs    143M  8.7M  134M   7% /videos
/dev/sdb1                     xfs        94M  5.9M   88M   7% /finance
/dev/sdc1                     xfs       195M   12M  184M   6% /logistics
/dev/sdc2                     xfs        94M  5.9M   88M   7% /purchases
[yyzvenkata@toronto3267 ~]$
```

c)

```
[yyzvenkata@toronto3267 ~]$ ls -ld /finance /tech /databases /apps /logistics /purchases
drwxr-xr-x. 2 root root 6 Feb  3 11:00 /apps
drwxr-xr-x. 2 root root 6 Feb  3 10:48 /databases
drwxr-xr-x. 2 root root 6 Feb  9 19:09 /finance
drwxr-xr-x. 2 root root 6 Feb  9 19:16 /logistics
drwxr-xr-x. 2 root root 6 Feb  9 19:23 /purchases
drwxr-xr-x. 2 root root 6 Feb  3 10:39 /tech
[yyzvenkata@toronto3267 ~]$
```

PART-G:

a)

```
[yyzvenkata@toronto3267 ~]$ sudo vgs vg-media
  VG         #PV #LV #SN Attr   VSize    VFree
  vg-media    2   2   0 wz--n- 596.00m      0
```

b)

```
[yyzvenkata@toronto3267 ~]$ sudo lvs vg-media/lv-music
  LV       VG       Attr       LSize    Pool Origin Data%  Meta%  Move Log Cpy%Sync Conver
  lv-music vg-media -wi-ao---- 200.00m
```

c)

```
[yyzvenkata@toronto3267 ~]$ sudo lvs vg-media/lv-videos
  LV        VG       Attr       LSize    Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  lv-videos vg-media -wi-ao---- 396.00m
```

d) e) f) g) h) i)

```
[yyzvenkata@toronto3267 ~]$ df -Th /music /videos
Filesystem                     Type  Size  Used Avail Use% Mounted on
/dev/mapper/vg--media-lv--music xfs   295M  7.9M  287M   3% /music
/dev/mapper/vg--media-lv--videos xfs  143M  8.7M  134M   7% /videos
[yyzvenkata@toronto3267 ~]$ ls -ld /music /videos
drwxr-xrwx. 2 root root 48 Feb  9 22:01 /music
drwxr-xrwx. 2 root root 48 Feb  9 22:01 /videos
[yyzvenkata@toronto3267 ~]$ sudo pvs
  PV         VG       Fmt  Attr PSize    PFree
  /dev/sda2  rhel     lvm2 a--  <31.00g      0
  /dev/sde   vg-media lvm2 a--  248.00m      0
  /dev/sdf   vg-media lvm2 a--  348.00m      0
[yyzvenkata@toronto3267 ~]$ sudo vgs
  VG         #PV #LV #SN Attr   VSize    VFree
  rhel         1   2   0 wz--n- <31.00g      0
  vg-media     2   2   0 wz--n- 596.00m      0
[yyzvenkata@toronto3267 ~]$ sudo lvs
  LV        VG       Attr       LSize    Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  root      rhel     -wi-ao----  27.79g
  swap      rhel     -wi-ao----   3.20g
  lv-music  vg-media -wi-ao---- 200.00m
  lv-videos vg-media -wi-ao---- 396.00m
```

```
[yyzvenkata@toronto3267 ~]$ ls -l /music /videos
/music:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 music1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 music2
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 music3

/videos:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 video1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 video2
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 video3
[yyzvenkata@toronto3267 ~]$
```

PART-H:

38.

```
[yyzvenkata@toronto3267 ~]$ lsblk
NAME                      MAJ:MIN RM   SIZE RO TYPE MOUNTPOINT
sda                          8:0    0   32G  0 disk
├─sda1                       8:1    0    1G  0 part /boot
└─sda2                       8:2    0   31G  0 part
  ├─rhel-root              253:0    0 27.8G  0 lvm  /
  └─rhel-swap              253:1    0  3.2G  0 lvm  [SWAP]
sdb                          8:16   0  100M  0 disk
└─sdb1                       8:17   0   99M  0 part /finance
sdc                          8:32   0  300M  0 disk
├─sdc1                       8:33   0  200M  0 part /logistics
├─sdc2                       8:34   0   99M  0 part /purchases
└─sdc3                       8:35   0 1007K  0 part
sdd                          8:48   0  400M  0 disk
├─sdd1                       8:49   0   80M  0 part /tech
├─sdd2                       8:50   0  150M  0 part /databases
└─sdd3                       8:51   0  169M  0 part /apps
sde                          8:64   0  250M  0 disk
├─vg--media-lv--music     253:2    0  200M  0 lvm  /music
└─vg--media-lv--videos    253:3    0  396M  0 lvm  /videos
sdf                          8:80   0  350M  0 disk
├─vg--media-lv--music     253:2    0  200M  0 lvm  /music
└─vg--media-lv--videos    253:3    0  396M  0 lvm  /videos
sdg                          8:96   0    5G  0 disk
sdh                          8:112  0    1G  0 disk
sr0                         11:0    1 1024M  0 rom
```

39.

```
[yyzvenkata@toronto3267 ~]$ df -Th /music /videos
Filesystem                      Type  Size  Used Avail Use% Mounted on
/dev/mapper/vg--media-lv--music  xfs   295M  7.9M  287M   3% /music
/dev/mapper/vg--media-lv--videos xfs   143M  8.7M  134M   7% /videos
```

a)

```
[yyzvenkata@toronto3267 ~]$ ls -ld /music /videos
drwxr-xr-x. 2 root root 6 Feb  3 11:26 /music
drwxr-xr-x. 2 root root 6 Feb  3 11:28 /videos
```

b)

```
[yyzvenkata@toronto3267 ~]$ ls -l /music /videos
/music:
total 0

/videos:
total 0
```

c)

```
[yyzvenkata@toronto3267 ~]$ sudo pvs
  PV         VG        Fmt  Attr PSize    PFree
  /dev/sda2  rhel      lvm2 a--  <31.00g     0
  /dev/sde   vg-media  lvm2 a--  248.00m     0
  /dev/sdf   vg-media  lvm2 a--  348.00m     0
```

d) e)

```
[yyzvenkata@toronto3267 ~]$ sudo vgs
  VG        #PV #LV #SN Attr   VSize    VFree
  rhel        1   2   0 wz--n- <31.00g     0
  vg-media    2   2   0 wz--n- 596.00m     0
[yyzvenkata@toronto3267 ~]$ sudo lvs
  LV         VG        Attr       LSize   Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  root       rhel      -wi-ao---- 27.79g
  swap       rhel      -wi-ao----  3.20g
  lv-music   vg-media  -wi-ao---- 200.00m
  lv-videos  vg-media  -wi-ao---- 396.00m
[yyzvenkata@toronto3267 ~]$
```

Part- I :

40.

a) b)

```
[yyzvenkata@toronto3267 ~]$ ls -ld /music /videos
drwxr-xrwx. 2 root root 48 Feb  9 22:01 /music
drwxr-xrwx. 2 root root 48 Feb  9 22:01 /videos
[yyzvenkata@toronto3267 ~]$ ls -l /music /videos
/music:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 music1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 music2
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 music3

/videos:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 video1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 video2
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  9 22:01 video3
[yyzvenkata@toronto3267 ~]$
```

c)

```
[yyzvenkata@toronto3267 ~]$ sudo pvs -v
  PV         VG        Fmt  Attr PSize    PFree DevSize PV UUID
  /dev/sda2  rhel      lvm2 a--  <31.00g     0  <31.00g zFx37b-0WXS-b39d-2das-uKTO-TCV9-HdYuI9
  /dev/sde   vg-media  lvm2 a--  248.00m     0  250.00m gRZPDI-JoAC-MxeD-Eb8J-nHM1-x59s-fgGe9Y
  /dev/sdf   vg-media  lvm2 a--  348.00m     0  350.00m 0wQUoH-jMqc-Z8kQ-eTJD-tPAa-qilb-4W0NMR
[yyzvenkata@toronto3267 ~]$
```

d) e)

```
[yyzvenkata@toronto3267 ~]$ sudo vgs -v
  VG       Attr   Ext    #PV #LV #SN VSize   VFree VG UUID                            VProfile
  rhel     wz--n- 4.00m  1   2   0 <31.00g     0 yfZGfc-JmXx-oFdk-PeJW-aoBF-4GEa-XPTHIq
  vg-media wz--n- 4.00m  2   2   0 596.00m     0 MgF2XR-2hFZ-3sFu-LmKh-AZsQ-w1r3-qfVjGX
[yyzvenkata@toronto3267 ~]$ sudo lvs -v
  LV        VG        #Seg Attr       LSize   Maj Min KMaj KMin Pool Origin Data%  Meta%  Move Cpy%Sync Log
  Convert LV UUID                               LProfile
  root      rhel         1 -wi-ao---- 27.79g  -1  -1  253    0
       7tTIn1-tsBS-lvMA-8pim-k3kc-l7mN-BkN1uT
  swap      rhel         1 -wi-ao----  3.20g  -1  -1  253    1
       IcPdIt-4bZG-ZTSN-hlqn-DB0h-P6jc-uPopId
  lv-music  vg-media     2 -wi-ao---- 200.00m -1  -1  253    2
       Mtvi9n-0lCw-G6n5-0udN-8g7g-cfHt-krqF00
  lv-videos vg-media     2 -wi-ao---- 396.00m -1  -1  253    3
       qiSSni-VMR5-TQxy-5Jpj-ZAd9-epQn-4uZLUj
```

f)

```
/dev/sda1                          xfs           576M    651m    576M      /boot
[yyzvenkata@toronto3267 ~]$ df -Th /music /videos
Filesystem                     Type   Size  Used Avail Use% Mounted on
/dev/mapper/vg--media-lv--music  xfs   295M  7.9M  287M   3% /music
/dev/mapper/vg--media-lv--videos xfs   391M   11M  380M   3% /videos
[yyzvenkata@toronto3267 ~]$
```

Part- K:

42.

```
[yyzvenkata@toronto3267 ~]$ sudo blkid
/dev/sda1: UUID="c088f112-7eb2-488f-b63e-b64a9227f7e9" BLOCK_SIZE="512" TYPE="xfs" PARTUUID="b535b601-01"
/dev/sda2: UUID="zFx37b-OWXS-b39d-2das-uKTO-TCV9-HdYuI9" TYPE="LVM2_member" PARTUUID="b535b601-02"
/dev/sdc1: UUID="244d7e47-03ee-48fe-a72e-955799be6886" BLOCK_SIZE="512" TYPE="xfs" PARTLABEL="Linux filesy
stem" PARTUUID="da22e46d-3a6d-4ffe-be86-fa4e450453a7"
/dev/sdc2: UUID="c456c4e8-ed7b-45dc-995a-a140ab4553bb" BLOCK_SIZE="512" TYPE="xfs" PARTLABEL="Linux filesy
stem" PARTUUID="8e375928-1fe8-4b66-8901-2c182efcf6a4"
/dev/sdc3: PARTLABEL="Linux filesystem" PARTUUID="9c14992c-d7a6-47b5-8eb6-b11136e85954"
/dev/sdb1: UUID="832f1ef4-e610-47f9-b37e-41c8e09d8142" BLOCK_SIZE="512" TYPE="xfs" PARTLABEL="Linux filesy
stem" PARTUUID="ccfd5025-2855-4491-a6ae-7cebe4b1a1fc"
/dev/sdd1: UUID="75cb3c87-37ca-4718-b747-364ee9ae58ea" BLOCK_SIZE="512" TYPE="xfs" PARTLABEL="Linux filesy
stem" PARTUUID="ec7a8426-da5c-4ff5-b361-2edaeae3b375"
/dev/sdd2: UUID="2f2549f1-5aa3-44ea-9163-42eeffe2161c" BLOCK_SIZE="512" TYPE="xfs" PARTLABEL="Linux filesy
stem" PARTUUID="44048634-3367-42f5-8adf-e43ffc9dd1a3"
/dev/sdd3: UUID="459866eb-b407-44de-9fdd-1c3953db7ed5" BLOCK_SIZE="512" TYPE="xfs" PARTLABEL="Linux filesy
stem" PARTUUID="f33b66ed-35d5-4bc9-bd30-7f60d1237e7b"
/dev/sde: UUID="gRZPDI-JoAC-MxeD-Eb8J-nHM1-x59s-fgGe9Y" TYPE="LVM2_member"
/dev/sdf: UUID="0wQUoH-jMqc-Z8kQ-eTJD-tPAa-qilb-4W0NMR" TYPE="LVM2_member"
/dev/mapper/rhel-root: UUID="772de018-440c-4532-81e3-b82696899c6f" BLOCK_SIZE="512" TYPE="xfs"
/dev/mapper/rhel-swap: UUID="53c951be-e973-4989-b727-0e3596d3c98c" TYPE="swap"
/dev/mapper/vg--media-lv--music: UUID="ebdd1c26-2930-4939-b518-dde9fb7885d4" BLOCK_SIZE="512" TYPE="xfs"
/dev/mapper/vg--media-lv--videos: UUID="2c3521fa-9c44-44d9-962f-4a22ccdf10f0" BLOCK_SIZE="512" TYPE="xfs"
[yyzvenkata@toronto3267 ~]$
```

44.

```
[yyzvenkata@toronto3267 ~]$ cat /etc/fstab

#
# /etc/fstab
# Created by anaconda on Fri Aug 12 01:51:05 2022
#
# Accessible filesystems, by reference, are maintained under '/dev/disk/'.
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info.
#
# After editing this file, run 'systemctl daemon-reload' to update systemd
# units generated from this file.
#
/dev/mapper/rhel-root    /                          xfs     defaults       0 0
UUID=c088f112-7eb2-488f-b63e-b64a9227f7e9 /boot                  xfs     defaults      0 0
/dev/mapper/rhel-swap    none                       swap    defaults       0 0
/dev/sdb1        /finance        xfs     defaults       0 0
/dev/sdc1        /logistics      xfs     defaults       0 0
/dev/sdc2        /purchases      xfs     defaults       0 0
/dev/sdd1        /tech   xfs     defaults        0 0
/dev/sdd2        /databases      xfs     defaults       0 0
/dev/sdd3        /apps   xfs     defaults        0 0
[yyzvenkata@toronto3267 ~]$
```

Part -J : VDO -Montreal:

```
[yulvenkata@montreal3267 ~]$ df -Th /data
Filesystem                      Type  Size  Used Avail Use% Mounted on
/dev/mapper/vg--data-vdo--data xfs    25G  211M   25G   1% /data
[yulvenkata@montreal3267 ~]$ lsblk
```

```
[yulvenkata@montreal3267 ~]$ sudo mount /dev/vg-data/vdo-data /data
[yulvenkata@montreal3267 ~]$ df -Th /data
Filesystem                      Type  Size  Used Avail Use% Mounted on
/dev/mapper/vg--data-vdo--data xfs    25G  211M   25G   1% /data
[yulvenkata@montreal3267 ~]$ lsblk
NAME                     MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sda                        8:0    0   32G  0 disk
├─sda1                     8:1    0    1G  0 part /boot
└─sda2                     8:2    0   31G  0 part
  ├─rhel-root            253:0    0 27.8G  0 lvm  /
  └─rhel-swap            253:1    0  3.2G  0 lvm  [SWAP]
sdb                        8:16   0    5G  0 disk
└─vg--data-vpool0_vdata  253:2    0    5G  0 lvm
  └─vg--data-vpool0-vpool 253:3   0   25G  0 lvm
    └─vg--data-vdo--data 253:4    0   25G  0 lvm  /data
sdc                        8:32   0    1G  0 disk
sr0                       11:0    1 1024M  0 rom
[yulvenkata@montreal3267 ~]$ sudo
```

45.

```
[yulvenkata@montreal3267 ~]$ cat /etc/fstab

#
# /etc/fstab
# Created by anaconda on Wed Aug 10 04:34:22 2022
#
# Accessible filesystems, by reference, are maintained under '/dev/disk/'.
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info.
#
# After editing this file, run 'systemctl daemon-reload' to update systemd
# units generated from this file.
#
/dev/mapper/rhel-root    /                            xfs     defaults        0 0
UUID=b182a3d2-a9cb-489e-a044-ae1ed10822ef /boot                  xfs     defaults        0 0
/dev/mapper/rhel-swap    none                         swap    defaults        0 0
/dev/vg-data/vdo-data    /data    xfs     defaults        0 0
```