

PART -A:

1 –

- I. /proc
- II. /boot
- III. /home
- IV. /var/log
- V. /root
- VI. /etc
- VII. /mnt
- VIII. /dev
- IX. /usr/sbin
- X. /etc/skel
- XI. /usr/lib
- XII. /lib
- XIII. /usr/share/man
- XIV. /var/mail

PART -B:

2 – ls -l vs ls -la

A: ls -l doesn't show hidden files while ls -la does.

8 –

a) tree ccgc

```
[yyzvenkata@toronto3267 ~]$ tree ccgc
ccgc
├── ccgc5000
│   ├── labs
│   │   ├── lab1.txt
│   │   ├── lab2.txt
│   │   └── lab3.txt
│   └── lesson
│       ├── module1.txt
│       ├── module2.txt
│       ├── module3.txt
│       ├── module4.txt
│       └── module5.txt
└── ccgc5001
    ├── labs
    │   ├── lab1.txt
    │   ├── lab2.txt
    │   └── lab3.txt
    └── lesson
        ├── module1.txt
        ├── module2.txt
        ├── module3.txt
        ├── module4.txt
        └── module5.txt
```

```

modules.txt
├── ccgc5002
│   ├── labs
│   │   ├── lab1.txt
│   │   ├── lab2.txt
│   │   └── lab3.txt
│   └── lesson
│       ├── module1.txt
│       ├── module2.txt
│       ├── module3.txt
│       ├── module4.txt
│       └── module5.txt
├── ccgc5003
│   ├── labs
│   │   ├── lab1.txt
│   │   ├── lab2.txt
│   │   └── lab3.txt
│   └── lesson
│       ├── module1.txt
│       ├── module2.txt
│       ├── module3.txt
│       ├── module4.txt
│       └── module5.txt
├── ccgc5004
│   ├── labs
│   └── lesson
└── ccgc5005
    ├── labs
    └── lesson

18 directories, 32 files
[yyzvenkata@toronto3267 ~]

```

b) tree backup

```

[yyzvenkata@toronto3267 ~]$ tree backup
backup
├── labs
│   ├── lab1.txt
│   ├── lab2.txt
│   └── lab3.txt
└── lesson
    ├── module1.txt
    ├── module2.txt
    ├── module3.txt
    ├── module4.txt
    └── module5.txt

2 directories, 8 files

```

c) ls -lR ccgc

```
[yyzvenkata@toronto3267 ~]$ ls -lR ccgc
ccgc:
total 0
drwxrwxr-x. 4 yyzvenkata yyzvenkata 32 Feb  2 22:32 ccgc5000
drwxrwxr-x. 4 yyzvenkata yyzvenkata 32 Feb  2 22:34 ccgc5001
drwxrwxr-x. 4 yyzvenkata yyzvenkata 32 Feb  2 22:34 ccgc5002
drwxrwxr-x. 4 yyzvenkata yyzvenkata 32 Feb  2 22:34 ccgc5003
drwxrwxr-x. 4 yyzvenkata yyzvenkata 32 Feb  2 22:34 ccgc5004
drwxrwxr-x. 4 yyzvenkata yyzvenkata 32 Feb  2 22:34 ccgc5005

ccgc/ccgc5000:
total 0
drwxrwxr-x. 2 yyzvenkata yyzvenkata  54 Feb  2 22:44 labs
drwxrwxr-x. 2 yyzvenkata yyzvenkata 101 Feb  2 22:52 lesson

ccgc/ccgc5000/labs:
total 12
-rw-rw-r--. 1 yyzvenkata yyzvenkata  5 Feb  2 22:43 lab1.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata  5 Feb  2 22:44 lab2.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata  5 Feb  2 22:44 lab3.txt

ccgc/ccgc5000/lesson:
total 20
-rw-rw-r--. 1 yyzvenkata yyzvenkata  8 Feb  2 22:49 module1.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata  8 Feb  2 22:49 module2.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata  8 Feb  2 22:50 module3.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata  8 Feb  2 22:51 module4.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata  8 Feb  2 22:52 module5.txt
```

```
ccgc/ccgc5001:
```

```
total 0
```

```
drwxrwxr-x. 2 yyzvenkata yyzvenkata 54 Feb 2 22:46 labs
```

```
drwxrwxr-x. 2 yyzvenkata yyzvenkata 101 Feb 2 22:52 lesson
```

```
ccgc/ccgc5001/labs:
```

```
total 12
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:46 lab1.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:45 lab2.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:44 lab3.txt
```

```
ccgc/ccgc5001/lesson:
```

```
total 20
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:49 module1.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:49 module2.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:50 module3.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:51 module4.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:52 module5.txt
```

```
ccgc/ccgc5002:
```

```
total 0
```

```
drwxrwxr-x. 2 yyzvenkata yyzvenkata 54 Feb 2 22:46 labs
```

```
drwxrwxr-x. 2 yyzvenkata yyzvenkata 101 Feb 2 22:52 lesson
```

```
ccgc/ccgc5002/labs:
```

```
total 12
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:46 lab1.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:45 lab2.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:44 lab3.txt
```

```
ccgc/ccgc5002/lesson:
```

```
total 20
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:49 module1.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:49 module2.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:50 module3.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:51 module4.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb 2 22:52 module5.txt
```

```
ccgc/ccgc5003:
```

```
total 0
```

```
drwxrwxr-x. 2 yyzvenkata yyzvenkata 54 Feb 2 22:46 labs
```

```
drwxrwxr-x. 2 yyzvenkata yyzvenkata 101 Feb 2 22:52 lesson
```

```
ccgc/ccgc5003/labs:
```

```
total 12
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:46 lab1.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:45 lab2.txt
```

```
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb 2 22:44 lab3.txt
```

```

ccgc/ccgc5003/lesson:
total 20
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:49 module1.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:49 module2.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:50 module3.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:51 module4.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:52 module5.txt

ccgc/ccgc5004:
total 0
drwxrwxr-x. 2 yyzvenkata yyzvenkata 6 Feb  2 22:34 labs
drwxrwxr-x. 2 yyzvenkata yyzvenkata 6 Feb  2 22:34 lesson

ccgc/ccgc5004/labs:
total 0

ccgc/ccgc5004/lesson:
total 0

ccgc/ccgc5005:
total 0
drwxrwxr-x. 2 yyzvenkata yyzvenkata 6 Feb  2 22:34 labs
drwxrwxr-x. 2 yyzvenkata yyzvenkata 6 Feb  2 22:34 lesson

ccgc/ccgc5005/labs:
total 0

ccgc/ccgc5005/lesson:
total 0

```

d) ls -lR backup

```

[yyzvenkata@toronto3267 ~]$ ls -lR backup
backup:
total 0
drwxrwxr-x. 2 yyzvenkata yyzvenkata  54 Feb  2 22:56 labs
drwxrwxr-x. 2 yyzvenkata yyzvenkata 101 Feb  2 22:56 lesson

backup/labs:
total 12
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb  2 22:56 lab1.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb  2 22:56 lab2.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 5 Feb  2 22:56 lab3.txt

backup/lesson:
total 20
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:56 module1.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:56 module2.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:56 module3.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:56 module4.txt
-rw-rw-r--. 1 yyzvenkata yyzvenkata 8 Feb  2 22:56 module5.txt
[yyzvenkata@toronto3267 ~]$ █

```

PART-C:

10.

a) tree cloud

```
[yyzvenkata@toronto3267 ~]$ tree cloud
cloud
├── aws
│   ├── aws1
│   └── aws2
├── azure
└── gcp
    ├── gcp1
    └── gcp2

3 directories, 4 files
[yyzvenkata@toronto3267 ~]$
```

b) ls -lR cloud

```
[yyzvenkata@toronto3267 ~]$ ls -lR cloud
cloud:
total 0
drwxrwxr-x. 2 yyzvenkata yyzvenkata 30 Feb  2 23:11 aws
drwxrwxr-x. 2 yyzvenkata yyzvenkata  6 Feb  2 23:09 azure
drwxrwxr-x. 2 yyzvenkata yyzvenkata 30 Feb  2 23:12 gcp

cloud/aws:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  2 23:11 aws1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  2 23:11 aws2

cloud/azure:
total 0

cloud/gcp:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  2 23:12 gcp1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  2 23:12 gcp2
[yyzvenkata@toronto3267 ~]$
```

11. rmdir did not delete /cloud/aws as the aws folder is not empty. Instead using right command deletes aws folder i.e: rm -r cloud/aws

12. rmdir cloud/azure works because azure directory is empty.

13.

```
[yyzvenkata@toronto3267 ~]$ stat mylab3;ls -lR cloud
File: mylab3
Size: 0          Blocks: 0          IO Block: 4096   regular empty file
Device: fd00h/64768d  Inode: 3301241   Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1001/yyzvenkata)   Gid: ( 1001/yyzvenkata)
Context: unconfined_u:object_r:user_home_t:s0
Access: 2023-02-02 23:24:00.737436341 -0500
Modify: 2023-02-02 23:24:00.737436341 -0500
Change: 2023-02-02 23:24:00.737436341 -0500
Birth: 2023-02-02 23:24:00.737436341 -0500
cloud:
total 0
drwxrwxr-x. 2 yyzvenkata yyzvenkata 30 Feb  2 23:12 gcp

cloud/gcp:
total 0
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  2 23:12 gcp1
-rw-rw-r--. 1 yyzvenkata yyzvenkata 0 Feb  2 23:12 gcp2
```

14.

```
[yyzvenkata@toronto3267 ~]$ stat mylab3
File: mylab3
Size: 9          Blocks: 8          IO Block: 4096   regular file
Device: fd00h/64768d  Inode: 3301241   Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1001/yyzvenkata)   Gid: ( 1001/yyzvenkata)
Context: unconfined_u:object_r:user_home_t:s0
Access: 2023-02-02 23:40:16.784475118 -0500
Modify: 2023-02-02 23:40:11.863474923 -0500
Change: 2023-02-02 23:40:11.863474923 -0500
Birth: 2023-02-02 23:24:00.737436341 -0500
[yyzvenkata@toronto3267 ~]$
```

15.

```
[yyzvenkata@toronto3267 ~]$ stat mylab3
File: mylab3
Size: 20         Blocks: 8          IO Block: 4096   regular file
Device: fd00h/64768d  Inode: 3301243   Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1001/yyzvenkata)   Gid: ( 1001/yyzvenkata)
Context: unconfined_u:object_r:user_home_t:s0
Access: 2023-02-02 23:42:11.049479658 -0500
Modify: 2023-02-02 23:42:11.049479658 -0500
Change: 2023-02-02 23:42:11.051479658 -0500
Birth: 2023-02-02 23:42:11.049479658 -0500
```

16.

```
[yyzvenkata@toronto3267 ~]$ ls -l mylab3
-rw-rw-r--. 1 yyzvenkata yyzvenkata 20 Feb  2 23:42 mylab3
[yyzvenkata@toronto3267 ~]$ ls -lc mylab3
-rw-rw-r--. 1 yyzvenkata yyzvenkata 20 Feb  2 23:42 mylab3
[yyzvenkata@toronto3267 ~]$ ls -lu mylab3
-rw-rw-r--. 1 yyzvenkata yyzvenkata 20 Feb  2 23:42 mylab3
[yyzvenkata@toronto3267 ~]$
```

PART - D.

a)

```
[yyzvenkata@toronto3267 ~]$ ls -li *mylab3*
3301243 -rw-rw-r--. 2 yyzvenkata yyzvenkata 20 Feb  2 23:42 hl-mylab3
3301243 -rw-rw-r--. 2 yyzvenkata yyzvenkata 20 Feb  2 23:42 mylab3
3341883 lrwxrwxrwx. 1 yyzvenkata yyzvenkata  6 Feb  2 23:48 sl-mylab3 -> mylab3
3301242 lrwxrwxrwx. 1 yyzvenkata yyzvenkata  6 Feb  2 23:51 sl-mylab3 -> mylab3
[yyzvenkata@toronto3267 ~]$
```

b)

```
[yyzvenkata@toronto3267 ~]$ ls -li cloud*
3301236 lrwxrwxrwx. 1 yyzvenkata yyzvenkata  5 Feb  2 23:58 cloudsl -> cloud

cloud:
total 0
35326287 drwxrwxr-x. 2 yyzvenkata yyzvenkata 30 Feb  2 23:12 gcp
[yyzvenkata@toronto3267 ~]$
```

PART-E.

```
[yyzvenkata@toronto3267 ~]$ history | grep -E 'find|locate'
316  find ~/ -name "ccgc*"
317  find ~/ -name "lab*" -o -name module*
318  find ~/ -type f -size +100M
319  find ~/ -type f -size +100m
320  sudo find / -type f -user yyzvenkata
321  locate ./ module1
322  locate ./module1
323  locate ./ module1
324  history | grep -E 'find|locate'
[yyzvenkata@toronto3267 ~]$
```