#### PARTITIONING ASSIGNMENT IN LINUX

Q. CREATE A PARTITION OF SIZE 40MB, FORMAT THE PARTITION WITH EXT4,

CREATE A DIR /XYZ, MOUNT THIS PARTITION ON /XYZ DIR

PERMANENTLY, AND CREATE THE FOLLOWING FILES WITHIN IT:

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 = EMPTY FILES,

DISPLAY THE CONTENT IN FILE1 WITH "WELCOME TO WIPRO"?

#### **ANSWER:**

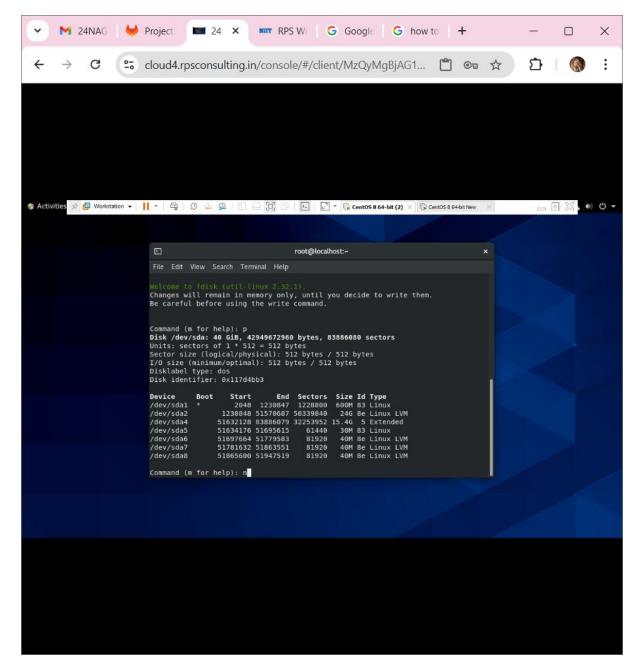
STEP -1: FIRST GO TO THE TERMINAL AND GIVE THE COMMAND IN THE ROOT DIRECTORY AS "Fdisk -I /dev/sda".

FDISK: THIS COMMAND IS USED FOR CREATING THE PARTITIONS.

/DEV/SDA: THIS COMMAND IS USED TO ACCES THE FIRST SCSI HARD DISK DRIVE IN A SYSTEM.

#### NOW, WE HAVE TO CREATE A NEW PARTITION:

- TYPE N TO CREATE A NEW PARTITION.
- CHOOSE THE PARTITION TYPE (PRIMARY OR EXTENDED).
- SET THE PARTITION SIZE TO 40MB. (E.G., STARTING FROM THE FIRST AVAILABLE SECTOR AND SETTING THE END SECTOR TO CREATE A 40MB PARTITION).
- WRITE THE CHANGES BY TYPING W.

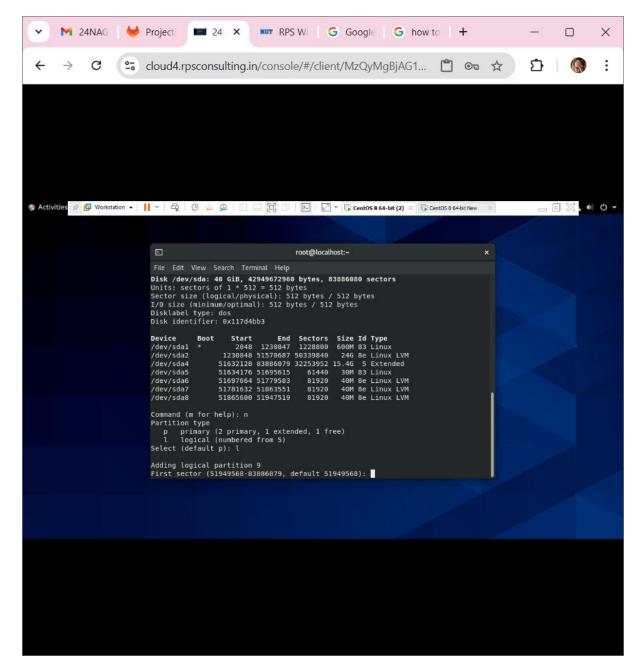


WE CAN SEE THE DEVICES, BOOT, START, END, SECTORS, SIZES, ID AND TYPE.

STEP -2:

AFTER CREATING THE PARTITION, REFRESH THE PARTITION TABLE WITH PARTPROBE OR RESTART YOUR SYSTEM TO MAKE THE NEW PARTITION AVAILABLE.

- P TO PRINT THE PARTITION
- N TO CREATE THE PARTITIONS.



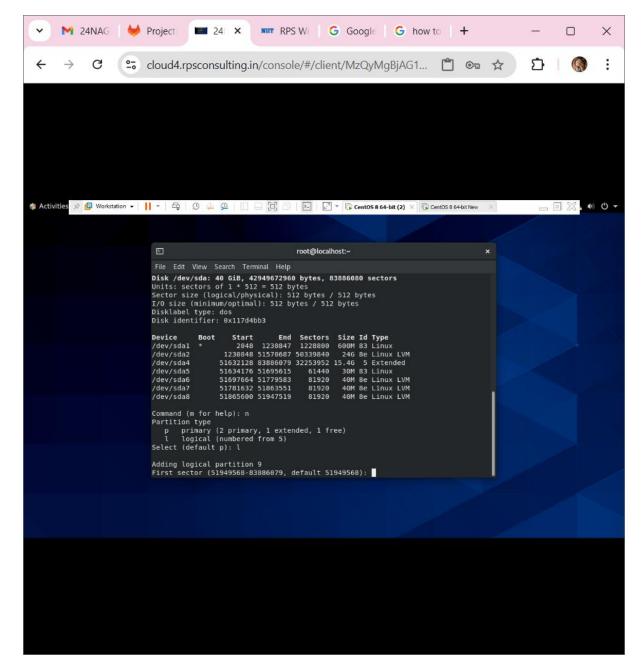
STEP -3: AFTER THE "n" COMMAND WE HAVE TO SELECT THE PARTITION TYPE, P AS PRIMARY

L AS LOGICAL PRIMARY.

SELECT THE "L" OPTION TO CREATE THE PARTITION IN THE LOGICAL PARTITONS.

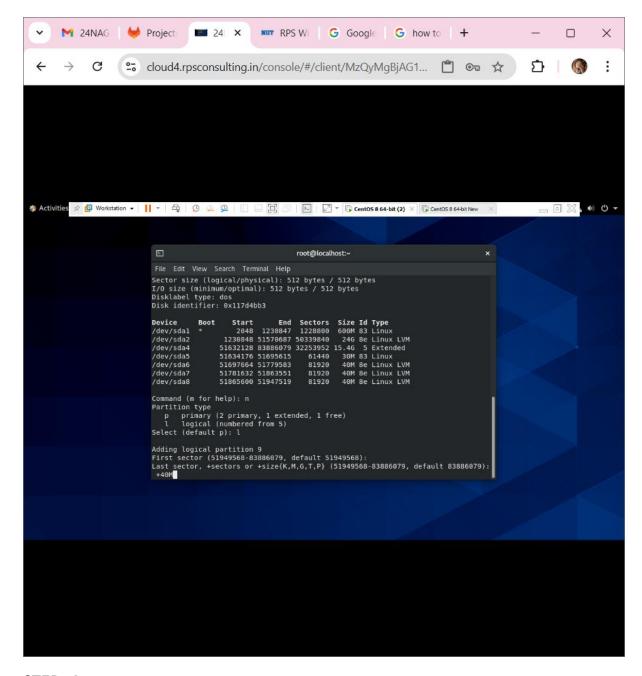
BY DEFAULTS, IT TAKES THE NEXT PARTITION NUMBER AND CLICK ENTER.

GIVE THE BLANK FOR THE FIRST SECTOR,



IN THE LAST SECTOR WE HAVE TO GIVE THE SIZE OF THE PARTITON AS WE REQUIRED +40MB.

CLICK ON THE ENTER.



#### **STEP -4:**

**FORMAT THE PARTITION WITH EXT4** 

NOW THAT THE PARTITION IS CREATED (LET'S ASSUME THE NEW PARTITION IS /DEV/SDA1), FORMAT IT WITH THE EXT4 FILESYSTEM.

CODE: "mkfs.ext4/dev/sda9".

NOW, CLICK ON THE ENTER.

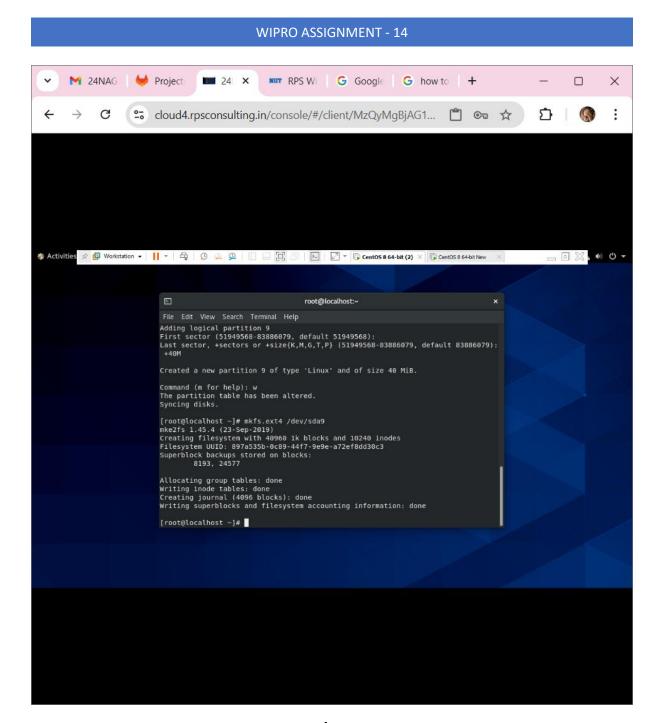
AND GIVE THE COMMAND "W" TO SAVE.

## WIPRO ASSIGNMENT - 14 M 24NAG W Project: 24 X RPS Wi G Google G how to + × G 😋 cloud4.rpsconsulting.in/console/#/client/MzQyMgBjAG1... 📋 🖼 🛣 🗓 🏶 Activities 🔊 📴 Workstation 🔻 📙 🔻 📮 🚇 🚇 🚇 🔲 🖂 🔯 🕞 🖂 🖟 CentOS 8 64-bit (2) 🗴 🕟 CentOS 8 64-bit New root@localhost:~ Sidarina Hermial Herp 51632128 83886079 32253952 15.46 5 Extended 51634176 51695615 61440 30M 83 Linux 51697664 51779583 81920 40M 8e Linux LVM 51781632 51863551 81920 40M 8e Linux LVM 51865600 51947519 81920 40M 8e Linux LVM /dev/sda4 /dev/sda5 /dev/sda6 /dev/sda7 /dev/sda8 Command (m for help): n Partition type p primary (2 primary, 1 extended, 1 free) l logical (numbered from 5) Select (default p): l Adding logical partition 9 First sector (51949568-83886079, default 51949568): Last sector, +sectors or +size{K,M,G,T,P} (51949568-83886079, default 83886079): Command (m for help): w The partition table has been altered. Syncing disks. [root@localhost ~]# mkfs.ext4 /dev/sda9

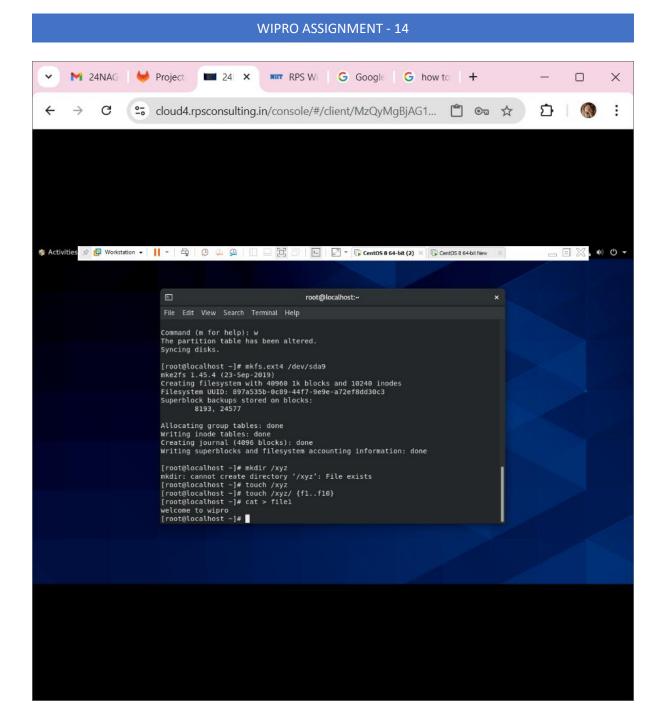
STEP -5:

**CREATE THE DIRECTORY /XYZ** 

NEXT, CREATE A DIRECTORY CALLED /XYZ TO MOUNT THE PARTITION ON.

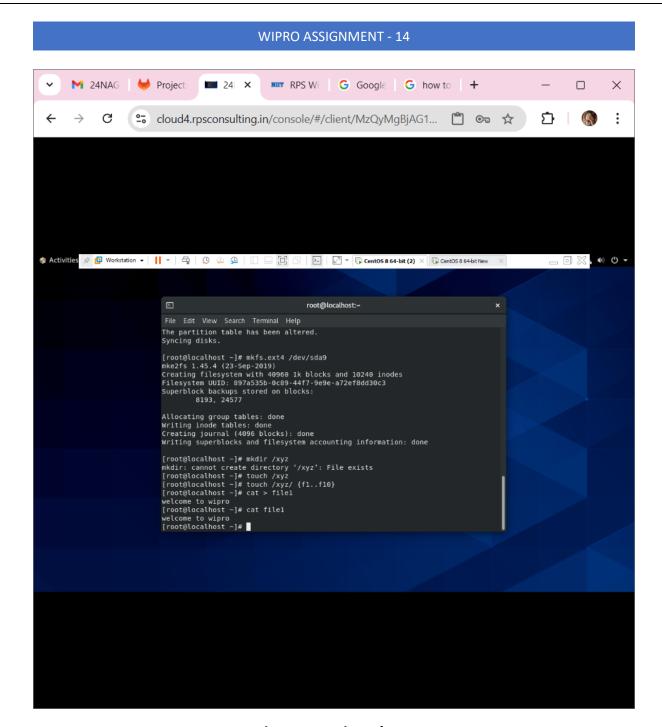


STEP -6: MOUNT THE PARTITION ON /XYZ
MOUNT THE NEWLY CREATED PARTITION TO THE /XYZ DIRECTORY.



**STEP -7: MAKE THE MOUNT PERMANENT** 

TO ENSURE THE PARTITION IS MOUNTED AUTOMATICALLY ON SYSTEM REBOOT, YOU NEED TO ADD IT TO /ETC/FSTAB.



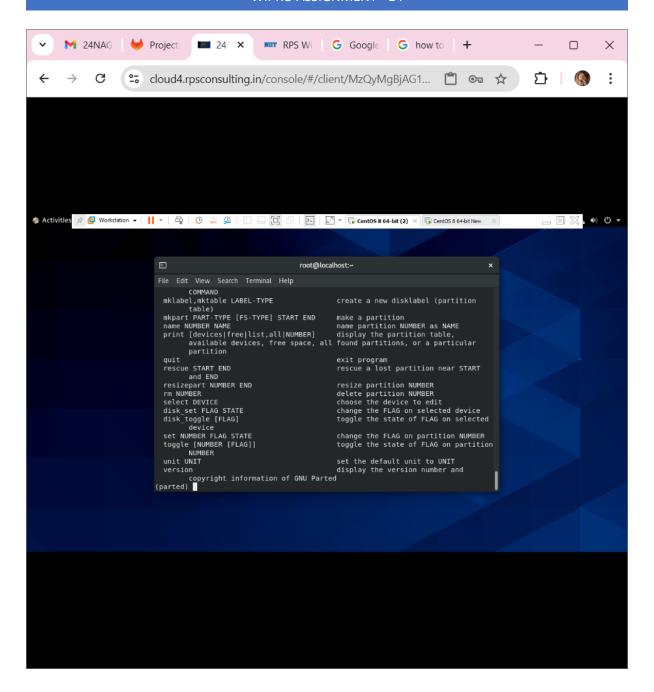
STEP -8: CREATE EMPTY FILES (F1 TO F10) IN /XYZ

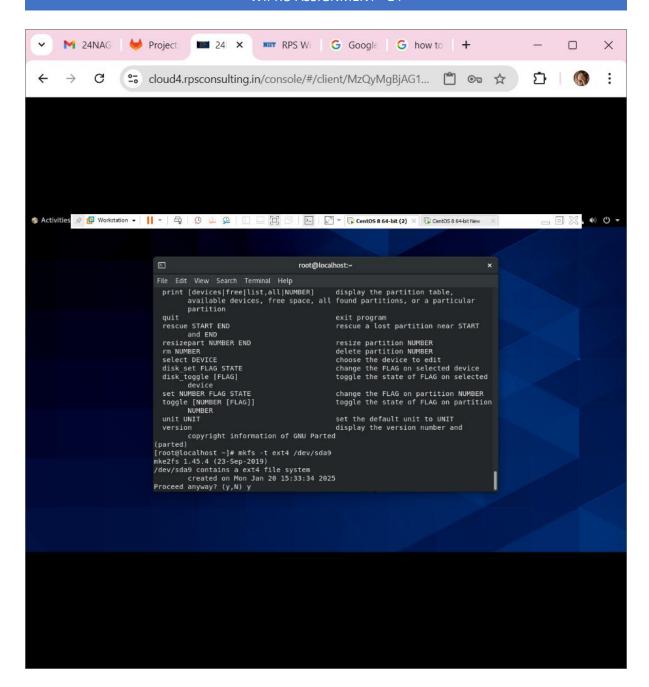
NOW CREATE THE EMPTY FILES WITHIN THE /XYZ DIRECTORY.

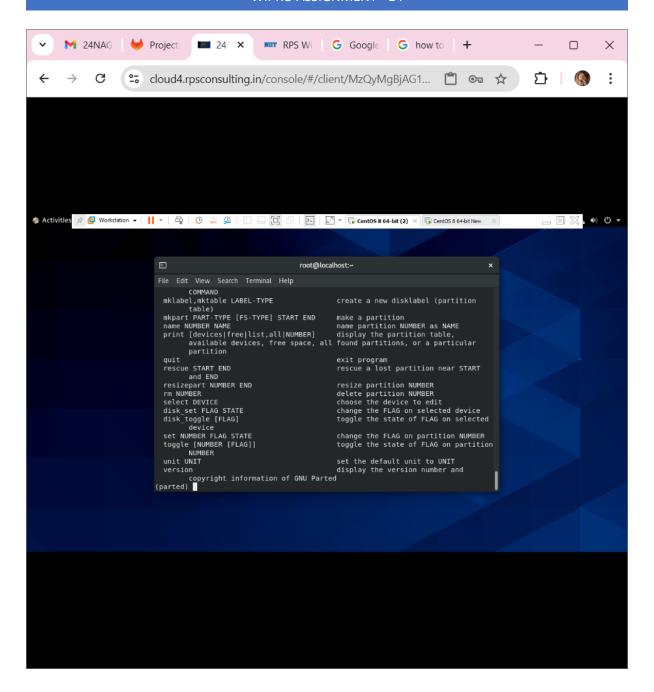
## WIPRO ASSIGNMENT - 14 M 24NAG W Project 24 X RPS Wi G Google G how to + X $\rightarrow$ C cloud4.rpsconsulting.in/console/#/client/MzQyMgBjAG1... 📋 🗪 🛣 🗓 🦚 Activities 🔊 📵 Workstation 🕶 📙 🔻 📮 🚇 🚇 🚇 🔲 🔲 🗒 🚇 📔 🖟 🕞 Cent05 8 64-bit (2) 🗴 🖫 Cent05 8 64-bit (2) root@localhost:~ I/O size (minimum/optimal): 512 bytes / 512 bytes Disklabel type: dos Disk identifier: 0x117d4bb3 Device Boot Start End Sectors Size Id Type /dev/sda1 \* 2048 1230847 1228880 609M 83 Linux LVM /dev/sda4 1230848 51570687 56339840 246 8e Linux LVM /dev/sda5 51634176 51695615 61440 30M 83 Linux LVM /dev/sda7 5176362 51636351 81920 40M 8e Linux LVM /dev/sda8 51865600 51947519 81920 40M 8e Linux LVM /dev/sda9 51949568 52031487 81920 40M 8e Linux LVM Command (m for help): q [root@localhost ~]# partprobe Warning: Unable to open /dev/sr0 read-write (Read-only file system). /dev/sr0 h as been opened read-only. [root@localhost -]# parted /dev/sda9 GNU Parted 3.2 Using /dev/sda9 Welcome to GNU Parted! Type 'help' to view a list of commands. (parted)

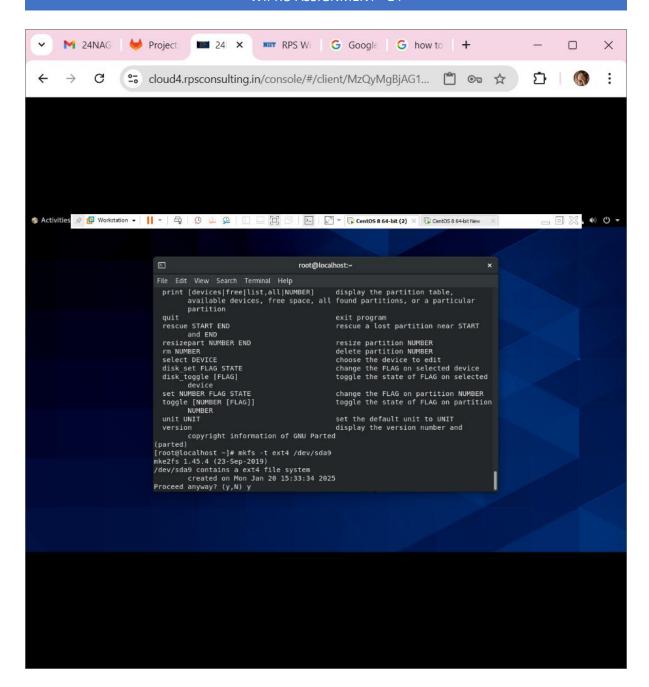
#### STEP - 9: DISPLAY CONTENT IN FILE F1

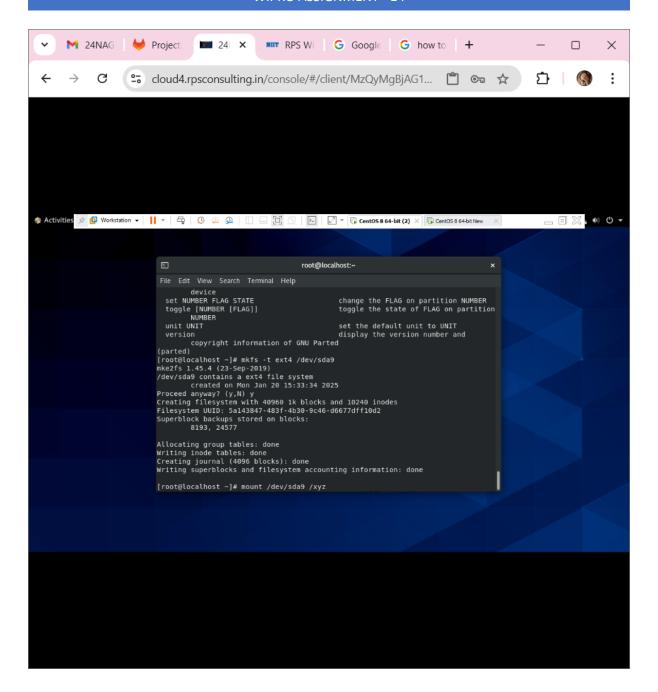
NOW, TO DISPLAY THE CONTENT IN FILE F1 WITH THE TEXT "WELCOME TO WIPRO".

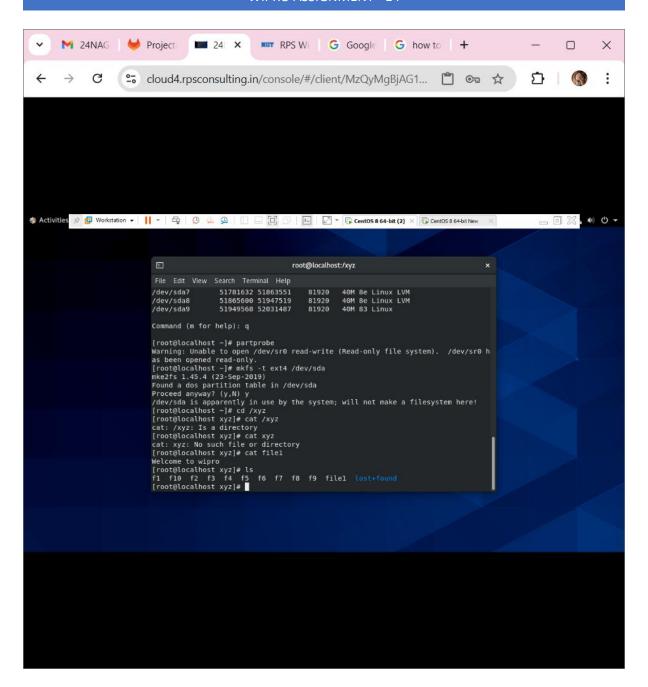


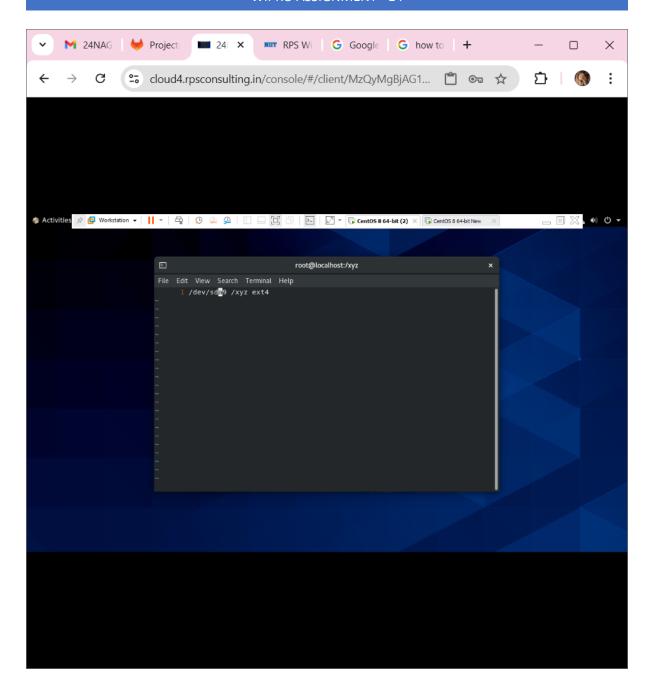


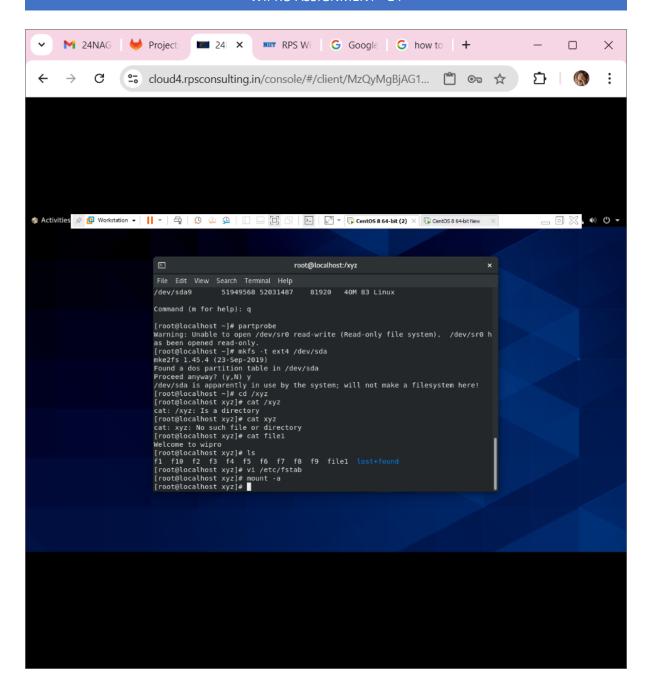












# **WIPRO ASSIGNMENT - 14** M 24NAG | Project: 24 X RPS Wi G Google G how to + X G °5 cloud4.rpsconsulting.in/console/#/client/MzQyMgBjAG1... 📋 🖘 ☆ 🖸 🌘 🦚 Activities 🔊 👨 Workstation 🔻 📙 🔻 💂 🖟 🚇 🚇 🚇 🔛 🖂 🔯 🖂 🖟 🖂 🖟 🖂 🖟 🖂 🖟 🖂 🖟 🕞 🔞 🕳 🖟 CentOS 8 64-bit (2) 💢 🖟 CentOS 8 64-bit (2) 💢 root@localhost:/xyz Proceed anyway? (y,N) y /dev/sda is apparently in use by the system; will not make a filesystem here! [root@localhost -]# cd /xyz [root@localhost xyz]# cat /xyz cat: /xyz: Is a directory [root@localhost xyz]# cat xyz cat: xyz: No such file or directory [root@localhost xyz]# cat file1 cat: Xyz: No sach [root@localhost xyz]# cat file] Welcome to wipro [root@localhost xyz]# ls f1 f10 f2 f3 f4 f5 f6 f7 f8 f9 file] lost+found [root@localhost xyz]# wi /etc/fstab [root@localhost xyz]# mount -a [root@localhost xyz]# df -th df: no file systems processed [root@localhost xyz]# df -Th Filesystem Type Size Used Avail Use% Mounted on devtmpfs devtmpfs 1.96 19.96 % /dev tmpfs tmpfs 1.96 15M 1.96 1% /run tmpfs tmpfs 1.96 15M 1.96 % /sys/fs/cgroup /dev/mapper/cl-root xfs 166 4.26 126 27% / tmpfs tmpfs 376M 1.2M 375M 1% /run/user/42 /dev/sda9 ext4 35M 784K 32M 3% /xyz

#### **FINAL ANSWER**

#### NOW WE HAVE COMPLETED THE FOLLOWING TASKS:

- CREATED A PARTITION OF 40MB.
- FORMATTED IT WITH EXT4.
- MOUNTED IT TO /XYZ.
- CREATED FILES F1 TO F10 AS EMPTY FILES IN /XYZ.
- ADDED CONTENT TO F1 WITH THE MESSAGE "WELCOME TO WIPRO".

#### TO CONFIRM THE CONTENT IN F1, RUN:

| CAT /XYZ/F1.   |                   |           |        |     |
|----------------|-------------------|-----------|--------|-----|
| AND THE OUTPUT | r <b>is</b>       |           |        |     |
| "WELCOME TO W  | IPRO".            |           |        |     |
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