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Course – Operating System Lab
Assignment 1A

Write shell script (menu driven program) to display disk space usage of the file system, including the total space, used space, available space, and usage percentage.

Program –

```
while true; do
echo "-----"
echo "Disk Space Usage Menu"
echo "-----"
echo "1. Display Disk Usage"
echo "2. Display Total Space"
echo "3. Display Used Space"
echo "4. Display Available Space"
echo "5. Display Usage Percentage"
echo "6. Exit"

echo "Enter Choice "
read ch

case $ch in
1) echo "Disk space usage : "
df -h
;;
2) echo "Total Disk Space : "
df -h --total | grep total | awk '{print $2}'
;;
3) echo "Used Space : "
df -h --total | grep total | awk '{print $3}'
;;
4) echo "Available space : "
df -h --total | grep total | awk '{print $4}'
;;
5) echo "Usage Percentage : "
df -h --total | grep total | awk '{print $5}'
;;
)
```

```
6) echo "Exiting... Thank you!"
    exit 0
    ;;
*) echo "Invalid choice"

esac
done
```

Output –

```
-----
Disk Space Usage Menu
-----

1. Display Disk Usage
2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit
Enter Choice
1
Disk space usage :
Filesystem      Size  Used Avail Use% Mounted on
overlay          2.0T   20G   1.9T   2% /
tmpfs            64M     0    64M   0% /dev
shm             64M     0    64M   0% /dev/shm
/dev/nvme1n1p3  2.0T   20G   1.9T   2% /usr/sbin/docker-init
/dev/nvme1n1p4  1.5T  140M   1.5T   1% /home/cg/root
tmpfs            63G     0    63G   0% /proc/acpi
tmpfs            63G     0    63G   0% /proc/scsi
tmpfs            63G     0    63G   0% /sys/firmware
tmpfs            63G     0    63G   0% /sys/devices/virtual/powercap
```

Disk Space Usage Menu

1. Display Disk Usage
2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit

Enter Choice

2

Total Disk Space :

5.7T

Disk Space Usage Menu

1. Display Disk Usage
2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit

Enter Choice

3

Used Space :

39G

Disk Space Usage Menu

1. Display Disk Usage
2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit

Enter Choice

4

Available space :

5.4T

Disk Space Usage Menu

1. Display Disk Usage
2. Display Total Space

2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit

Enter Choice

5

Usage Percentage :

1%

Disk Space Usage Menu

1. Display Disk Usage
2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit

Enter Choice

7

Invalid choice

7

Invalid choice

Disk Space Usage Menu

1. Display Disk Usage
2. Display Total Space
3. Display Used Space
4. Display Available Space
5. Display Usage Percentage
6. Exit

Enter Choice

6

Exiting... Thank you!