

Question 1: Explain this following bash script:

```
#!/bin/bash
space_free=$( df -h | awk '{ print $5 }' | sort -n | tail -n 1 | sed 's/%//' )
case $space_free in
  [1-5]*)
    echo Plenty of disk space available
    ;;
  [6-7]*)
    echo There could be a problem in the near future
    ;;
  8*)
    echo Maybe we should look at clearing out old files
    ;;
  9*)
    echo We could have a serious problem on our hands soon
    ;;
  *)
    echo Something is not quite right here
    ;;
Esac
Explain-
```

df - used to display the **disk space used in the file system**

-h -It is used to display sizes in powers of 1024

```
[sujoy@localhost DevOps]$ bash assignment.sh
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        903M   0  903M   0% /dev
tmpfs           919M   0  919M   0% /dev/shm
tmpfs           919M  9.5M  910M   2% /run
tmpfs           919M   0  919M   0% /sys/fs/cgroup
/dev/mapper/centos-root 17G  7.4G  9.7G  44% /
/dev/sda1       1014M  239M  776M  24% /boot
tmpfs          184M   28K  184M   1% /run/user/1000
/dev/sr0        51M   51M   0 100% /run/media/sujoy/VBox_GAs_7.0.2
[sujoy@localhost DevOps]$ vim assignment.sh
```

awk '{print \$5}' -it will display the 5th column

```
[sujoy@localhost DevOps]$ bash assignment.sh
Use%
0%
0%
2%
0%
44%
24%
1%
100%
[sujoy@localhost DevOps]$
```

Sort -n : It will perform numeric sorting upon "use%" column.

```
[sujoy@localhost DevOps]$ bash assignment.sh
0%
0%
0%
Use%
1%
2%
24%
44%
100%
[sujoy@localhost DevOps]$ vim assignment.sh
```

Tail -n 1 : display last line or last row from "user%" column

```
[sujoy@localhost DevOps]$ bash assignment.sh  
100%  
[sujoy@localhost DevOps]$
```

sed 's/%/' : It will remove "%", convert 100% to 100

```
[sujoy@localhost DevOps]$ bash assignment.sh  
100  
[sujoy@localhost DevOps]$
```

- Case statement will check space_free value and display the output
100 in [1-5]*

```
[sujoy@localhost DevOps]$ bash assignment.sh  
Plenty of disk space available  
[sujoy@localhost DevOps]$
```