Q1. #!/bin/bash

#space_free=$(df -h | awk '{ print $5 }' | sort -n | tail -n 1 | sed 's/%//')

space_free=0

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

Explanation:

df -h commands shows disk space

```
[ec2-user@ip-172-31-8-101 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  460K  483M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  22% /
tmpfs            97M     0   97M   0% /run/user/0
tmpfs            97M     0   97M   0% /run/user/1000
```

awk '{ print $5 }' : prints the 5th column which in this case is Use%

```
[ec2-user@ip-172-31-8-101 ~]$ df -h | awk '{ print $5 }'
Use%
0%
0%
1%
0%
22%
0%
0%
```

sort -n : sorts from lowest number to highest number

```
[ec2-user@ip-172-31-8-101 ~]$ df -h | awk '{ print $5 }' | sort -n
0%
0%
0%
0%
0%
Use%
1%
22%
```

tail -n 1 : prints the first number from last

```
[ec2-user@ip-172-31-8-101 ~]$ df -h | awk '{ print $5 }' | sort -n | tail -n 1
22%
```

sed 's/%//' : removes % from output

```
[ec2-user@ip-172-31-8-101 ~]$ df -h | awk '{ print $5 }' | sort -n | tail -n 1 | sed 's/%//'
22
```

```
[root@ip-172-31-8-101 ec2-user]# nano assignment5.sh
[root@ip-172-31-8-101 ec2-user]# ./assignment5.sh
Plenty of disk space available
```

Now observing the output we are getting 22 and since this is in 1st case we are getting output as Plenty of disk space available.

Here [1-5]* means anything starting from 1-5 like 10-19, 20-29,etc.