Shell script for monitoring the slave machine for Cpu utilization and send alerts to master if it reaches 80%

Bash script to monitor CPU, memory, and disk usage on multiple hosts and sends an email notification if the CPU load exceeds a critical threshold.

Script:

```
#!/bin/bash

CRITICAL=80

CRITICALMAIL="aniket@ip-172-31-60-191.ec2.internal"     ###mail of  master

LOGFILE=/home/aniket/cpu_util-`date +%h%d%y`.log

for i in `cat /home/aniket/hostlist`;

do

HOSTNAME=$(hostname)

DATE=$(date "+%Y-%m-%d %H:%M:%S")

CPULOAD=$(top -b -n 1 -d1 | grep "Cpu(s)" |awk '{print $2}' |awk -F. '{print $1}')

MEMUSAGE=$(free | grep Mem | awk '{print $3/$2 * 100.0}')

DISKUSAGE=$(df -P |column -t |awk '{print $5}' | tail -n 1 | sed 's/%//g')

echo "Hostname,       Date&Time,       CPUi(%),Mem(%),Disk(%)">> $LOGFILE

echo "$HOSTNAME, $DATE, $CPULOAD, $MEMUSAGE, $DISKUSAGE">> $LOGFILE

if [ "$CPULOAD" -ge "$CRITICAL" ]; then

echo "$DATE CRITICAL - $CPULOAD on host $HOSTNAME" >> $LOGFILE
```

```
echo "CRITICAL Cpuload $CPULOAD Host is $HOSTNAME" | mail -s "Cpu load is CRITICAL" $CRITICALMAIL

exit

else

echo "$DATE OK - Cpuload: $CPULOAD on $HOSTNAME" >> $LOGFILE

exit

fi

done
```

This is a bash script that monitors CPU, memory, and disk usage on multiple hosts and sends an email notification if the CPU load exceeds a critical threshold.

Here's a breakdown of what the script does:

1. It sets the critical threshold for CPU usage (`**CRITICAL=80**`) and the email address to receive notifications (`**CRITICALMAIL="aniket@ip-172-31-60-191.ec2.internal**"`).

2. It defines a logfile path using the current date (`**LOGFILE=/home/aniket/cpu_util-`date +%h%d%y`.log**`).

3. It loops through a list of hosts stored in the file **`/home/aniket/hostlist`**.

4. Inside the loop, it gets the hostname of the current machine (`**HOSTNAME=$(hostname**)`), the current date and time **(`DATE=$(date "+%Y-%m-%d %H:%M:%S")`**), and the CPU load percentage (`**CPULOAD=$(top -b -n 1 -d1 | grep "Cpu(s)" |awk '{print $2}' |awk -F. '{print $1}')`**).

5. It calculates the memory usage percentage by dividing used memory by total memory (`**MEMUSAGE=$(free | grep Mem | awk '{print $3/$2 * 100.0}')**`).

6. It calculates the disk usage percentage by retrieving the usage from the last line of the `**df -P**` command's output (`**DISKUSAGE=$(df -P |column -t |awk '{print $5}' | tail -n 1 | sed 's/%//g')**`).

7. It appends the collected data to the logfile in the format: "**Hostname, Date&Time, CPUi(%), Mem(%), Disk**(%)".

8. If the CPU load exceeds the critical threshold (`**if [ "$CPULOAD" -ge "$CRITICAL" ]; then**`), it appends a critical notification message to the logfile and sends an email notification with the subject "**Cpu load is CRITICAL**" to the specified email address (`**echo "CRITICAL Cpuload $CPULOAD Host is $HOSTNAME" | mail -s "Cpu load is CRITICAL" $CRITICALMAIL**`), and then exits the script.

9. If the CPU load is below the critical threshold, it appends an "**OK**" message to the logfile and exits the script.

Please note that this script assumes the necessary commands (`**top`, `free`, `df`, `mail**`) are available on the system running the script, and the user running the script has appropriate permissions to access the necessary files and execute the commands.