

```
[aravi@TechArkit:~]$ How to Monitor CPU utilization.? when it went to above 98% CRITICAL, 90-98 WARNING , below 90% then it should not send any alert. ^C
```

TechArki

```
[aravi@TechArkit:~]$  
[aravi@TechArkit:~]$ template  
Please provide filename you want create: cpualert  
[aravi@TechArkit:~]$ cd /scripts/  
[aravi@TechArkit:/scripts]$ clear
```

```
PATHS="/"
HOSTNAME=$(hostname)
CRITICAL=98
WARNING=90
CRITICALMail="YOUREMAILaddress@Domain.com"
MAILWAR="YOUREMAIL@Domain.in"
mkdir -p /var/log/cputilhist
LOGFILE=/var/log/cputilhist/cpusage-`date +%h%d%y`.log

touch $LOGFILE
```

```

for path in $PATHS
do
    CPULOAD=`top -b -n 2 -d1 | grep "Cpu(s)" | tail -n1 | awk '{print $2}' | awk -F. '{print $1}'`
    if [ -n $WARNING -a -n $CRITICAL ]; then
    if [ "$CPULOAD" -ge "$WARNING" -a "$CPULOAD" -lt "$CRITICAL" ]; then
    echo "`date +%F %H:%M:%S` WARNING - $CPULOAD on Host $HOSTNAME" >> $LOGFILE
    echo "Warning Cpload $CPULOAD Host is $HOSTNAME" | mail -s "CPULOAD is Warning" $MAILWAR
    exit 1
    elif [ "$CPULOAD" -ge "$CRITICAL" ]; then
    echo "`date +%F %H:%M:%S` CRITICAL - $CPULOAD on Host $HOSTNAME" >> $LOGFILE
    echo "CRITICAL Cpload $CPULOAD Host is $HOSTNAME" | mail -s "CPULOAD is CRITICAL" $CRITICALMail
    exit 2
    else
    echo "`date +%F %H:%M:%S` OK - $CPULOAD on $HOSTNAME" >> $LOGFILE
    exit 0
    fi
fi
done

```

```

[aravi@TechArkit:/scripts]$ sh cpualert.sh
mkdir: cannot create directory '/var/log/cputilhist': Permission denied
touch: cannot touch '/var/log/cputilhist/cpusage-Jun0518.log': No such file or directory
cpualert.sh: line 33: /var/log/cputilhist/cpusage-Jun0518.log: No such file or directory
[aravi@TechArkit:/scripts]$ sudo -s
[sudo] password for aravi:
[root@TechArkit:/scripts]# sh cpualert.sh
[root@TechArkit:/scripts]# cd /var/log/
[root@TechArkit:/var/log]# ls
anaconda          boot.log-20180516  cron              firewallld        maillog           messages-20180516  secure           spooler-20180506  wpa_supplicant.1o
audit             boot.log-20180519  cron-20180502    gdm              maillog-20180502  pluto             secure-20180502  spooler-20180516  wtmp
boot.log          boot.log-20180521  cron-20180506    glusterfs        maillog-20180506  ppp              secure-20180506  tallylog          Xorg.0.log
boot.log-20180506 btmap             cron-20180516    grubby           maillog-20180516  qemu-ga          secure-20180516  tuned            Xorg.0.log.old
boot.log-20180509 btmap-20180502    cups             grubby_prune_debug messages          rhsm             speech-dispatcher vmware-vgauthsvc.log.0 Xorg.1.log
boot.log-20180510 chrony            dmesg            lastlog           messages-20180502 sa               spooler          vmware-vmvsc.log  Xorg.9.log
boot.log-20180512 cputilhist       dmesg.old        libvirt           messages-20180506 samba            spooler-20180502 vmware-vmusr.log  yum.log
[root@TechArkit:/var/log]# cd cputilhist/
[root@TechArkit:/var/log/cputilhist]# ls
cpusage-Jun0518.log
[root@TechArkit:/var/log/cputilhist]# cat cpusage-Jun0518.log
2018-06-05 21:53:51 OK - 0 on TechArkit
[root@TechArkit:/var/log/cputilhist]# crontab -

```

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crontab -e

```

root@TechArkit:/var/log/cputilhist
*/5 * * * * sh /scripts/cpualert.sh
~
~
~

```

Disk Space Monitoring Using Shell Script



```
[aravi@TechArkit:~]$ template
Please provide filename you want create: diskspace
[aravi@TechArkit:~]$ cd /scripts/
[aravi@TechArkit:/scripts]$ vi diskpace.sh
```

```
#!/bin/bash
THRESHOULD=40
mailto="root"
HOSTNAME=$(hostname)

for path in ` /bin/df -h | grep -vE 'Filesystem|tmpfs' | awk '{print $5}' | sed 's/%//g' `
do
    if [ $path -ge $THRESHOULD ]; then
        df -h | grep $path% >> /tmp/temp
    fi
done

VALUE=`cat /tmp/temp | wc -l`
if [ $VALUE -ge 1 ]; then
    mail -s "$HOSTNAME Disk Usage is Critical" $mailto < /tmp/temp
fi
```

```
root@Siddhartha:~# vi disk.sh
root@Siddhartha:~# bash disk.sh
```

```
root@Siddhartha:~# cd /tmp
root@Siddhartha:/tmp# ls
systemd-private-303c8ed316e0431b9dale72efd14f943-systemd-logind.service-FWudEg  temp
systemd-private-303c8ed316e0431b9dale72efd14f943-systemd-resolved.service-BgcPoU
```

```

root@Siddhartha:/tmp# ls
systemd-private-303c8ed316e0431b9dale72efd14f943-systemd-logind.service-FWudEg    temp
systemd-private-303c8ed316e0431b9dale72efd14f943-systemd-resolved.service-BgcPoU
root@Siddhartha:/tmp# cat /tmp/temp
none          140G   117G   23G   84% /usr/lib/wsl/drivers
C:\           140G   117G   23G   84% /mnt/c
none          140G   117G   23G   84% /usr/lib/wsl/drivers
C:\           140G   117G   23G   84% /mnt/c
D:\           70G    48G    22G   69% /mnt/d
root@Siddhartha:/tmp#

```

```

[root@TechArkit:~]# sh /scripts/diskspace.sh
[root@TechArkit:~]# cat /tmp/temp
/dev/sda1      497M   219M   279M   44% /boot
/dev/sda1      497M   219M   279M   44% /boot
/dev/sda1      497M   219M   279M   44% /boot
[root@TechArkit:~]#

```

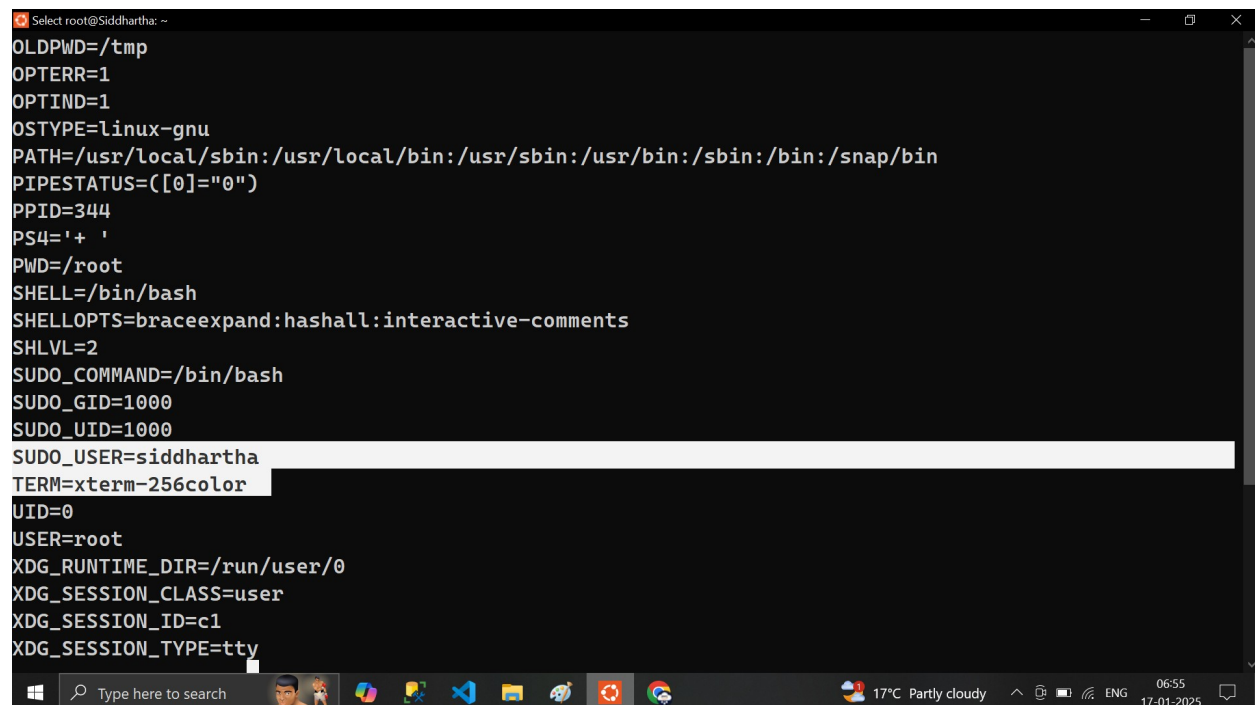
IFS - Internal Field Separator in Shell Scripts. Using any separator value we can separator the content in shell scripts internally.



```
# START #  
LINE=`cat /etc/passwd |grep $1`  
IFS=:  
set $LINE  
echo "User Name = $1"  
echo "Password = $2"  
echo "UID = $3"  
echo "GID = $4"  
echo "Description = $5"  
echo "Home Directory = $6 "  
echo " Current Shell = $7"
```

```
root@Siddhartha:~# bash ifs.sh siddhartha
User Name = siddhartha
Password = x
UID = 1000
GID = 1000
Description = , , ,
Home Directory = /home/siddhartha
Current Shell = /bin/bash
root@Siddhartha:~#
```

indetail . below are output

A screenshot of a terminal window titled "Select root@Siddhartha: ~". The terminal displays a list of environment variables and their values. The variables include OLDPWD, OPTERR, OPTIND, OSTYPE, PATH, PIPESTATUS, PPID, PS4, PWD, SHELL, SHELL_OPTS, SHLVL, SUDO_COMMAND, SUDO_GID, SUDO_UID, SUDO_USER, TERM, UID, USER, XDG_RUNTIME_DIR, XDG_SESSION_CLASS, XDG_SESSION_ID, and XDG_SESSION_TYPE. The window has a standard Windows taskbar at the bottom with various icons and a system tray showing the date and time.

```
Select root@Siddhartha: ~
OLDPWD=/tmp
OPTERR=1
OPTIND=1
OSTYPE=linux-gnu
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin
PIPESTATUS=([0]="0")
PPID=344
PS4='+ '
PWD=/root
SHELL=/bin/bash
SHELL_OPTS=braceexpand:hashall:interactive-comments
SHLVL=2
SUDO_COMMAND=/bin/bash
SUDO_GID=1000
SUDO_UID=1000
SUDO_USER=siddhartha
TERM=xterm-256color
UID=0
USER=root
XDG_RUNTIME_DIR=/run/user/0
XDG_SESSION_CLASS=user
XDG_SESSION_ID=c1
XDG_SESSION_TYPE=ttv
```

How to Find Linux System Load History

system load average, CPU usage and memory usage history shell script. run on multiple servers from single server

Code

```
# Log File Path
LOGFILE=/var/log/systemload.log

HOSTNAME=$(hostname)
DATE=$(date "+%d-%m-%Y %H:%M:%S")
SYSTEMLOAD=$(uptime | awk '{ print $8,$9,$10,$11,$12}')
```

```
CPULOAD=$(top -b -n 2 -d1 | grep "Cpu(s)" | tail -n1 | awk '{print $2}')
```

```
MEMORYUSAGE=$(free -m | grep Mem: | tail -n1 | awk '{print $2,$3}')
```

```
echo "$DATE $HOSTNAME LoadAverage: $SYSTEMLOAD CPU: $CPULOAD Memory: $MEMORYUSAGE" >> $LOGFILE
```

systemload.sh

```
root@Siddhartha:~# bash systemload.sh
```

24-02-2019	21:32:20	ipa.arkit.lab.local	LoadAverage: 0.01, 0.08	CPU: 2.9	Memory: 3778
			1044		

Advanced Shell Scripting Tutorial - Scenario: Everyday from Monday to Friday one directory will be created under `/fullbackup/dailybackup/YYYY-MM-DD` and it will move backup to its parent directory everyday midnight `/fullbackup/archive/`, However Saturday, Sunday and Monday directories will move to `/fullbackup/archive` path every Monday evening.

Directory Names Example: 2018-12-24 2018-12-25 2018-12-26 2018-12-27 2018-12-28

Question: I would like to delete directories older than two days from `/fullbackup/archive` path. How do you do it using any scripting methods.

Problem Statement: I was trying to use

```
find /path/ -type d -mtime +2 -print0 | xargs -r0 rm -- .
```

This command does not work as expected due to directory modified date for SAT, SUN and MON are Mondays date.

How Do you solve it?? Write Shell Script or Any other script to accomplish this task. Should run through Crontab and clear directories older than two days.

Scenario: Every day from Monday to Friday one directory will be created under `/fullbackup/dailybackup/YYYY-MM-DD` and it will move back up to its parent directory everyday midnight `/fullbackup/archive/`, However Saturday, Sunday and Monday directories will move to `/fullbackup/archive` path every Monday evening.

Directory Names Example: 2018-12-24 2018-12-25 2018-12-26 2018-12-27 2018-12-28

Question: I would like to delete directories older than two days from `/fullbackup/archive` path. How do you do it using any scripting methods?

Problem Statement: I was trying to use `find /path/ -type d -mtime +2 -print0 | xargs -r0 rm -- .`. This command does not work as expected due to directory modified date for SAT, SUN and MON are Mondays date.

How do you solve it?? Write Shell Script or Any other script to accomplish this task. Should run through crontab and clear directories older than two days.


```

[root@TechArkit-Server ~]#
[root@TechArkit-Server ~]# mkdir -p /fullbackup/dailybackup/
[root@TechArkit-Server ~]# cd /fullbackup/dailybackup/
[root@TechArkit-Server dailybackup]# mkdir 2018-12-24 2018-12-25 2018-12-26 2018-12-27
2018-12-28
[root@TechArkit-Server dailybackup]# ls
2018-12-24 2018-12-25 2018-12-26 2018-12-27 2018-12-28
[root@TechArkit-Server dailybackup]# ls -ltr
total 0
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-28
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-27
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-26
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-25
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-24
[root@TechArkit-Server dailybackup]# mkdir 2018-12-29 2018-12-30 2018-12-31 2019-01-01
[root@TechArkit-Server dailybackup]# ls
2018-12-24 2018-12-26 2018-12-28 2018-12-30 2019-01-01
2018-12-25 2018-12-27 2018-12-29 2018-12-31

```

Folder Structure

```

[root@TechArkit-Server dailybackup]#
[root@TechArkit-Server dailybackup]# ls -ltr
total 0
lrwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-28
lrwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-27
lrwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-26
lrwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-25
lrwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-24
lrwxr-xr-x 2 root root 6 Dec 31 22:35 2019-01-01
lrwxr-xr-x 2 root root 6 Dec 31 22:35 2018-12-31
lrwxr-xr-x 2 root root 6 Dec 31 22:35 2018-12-30
lrwxr-xr-x 2 root root 6 Dec 31 22:35 2018-12-29
[root@TechArkit-Server dailybackup]#

```

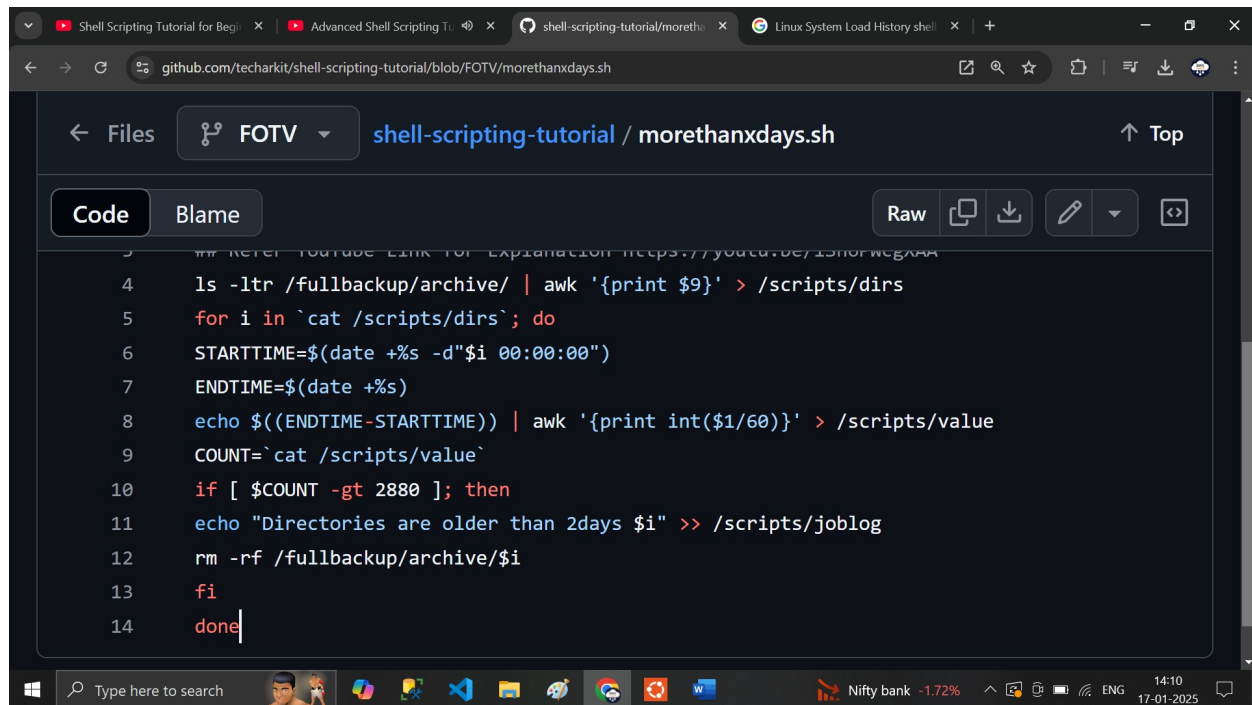
Move this Structure to other Dir

```
[root@TechArkit-Server ~]#  
[root@TechArkit-Server ~]# mkdir -p /fullbackup/archive/  
[root@TechArkit-Server ~]# mv /fullbackup/dailybackup/* /fullbackup/archive/  
[root@TechArkit-Server ~]# cd /fullbackup/archive/  
[root@TechArkit-Server archive]# ls -ltr  
total 0  
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-28  
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-27  
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-26  
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-25  
drwxr-xr-x 2 root root 6 Dec 31 22:34 2018-12-24  
drwxr-xr-x 2 root root 6 Dec 31 22:35 2019-01-01  
drwxr-xr-x 2 root root 6 Dec 31 22:35 2018-12-31  
drwxr-xr-x 2 root root 6 Dec 31 22:35 2018-12-30  
drwxr-xr-x 2 root root 6 Dec 31 22:35 2018-12-29  
[root@TechArkit-Server archive]#
```

root@TechArkit-Server/fullbackup/archive

```
[root@TechArkit-Server ~]#  
[root@TechArkit-Server ~]# cd /fullbackup/archive/  
[root@TechArkit-Server archive]# stat 2018-12-24  
File: '2018-12-24'  
Size: 6          Blocks: 0          IO Block: 4096   directory  
Device: fd01h/64769d    Inode: 68611261   Links: 2  
Access: (0755/drwxr-xr-x)  Uid: (    0/    root)   Gid: (    0/    root)  
Access: 2018-12-31 22:34:33.272098646 -0500  
Modify: 2018-12-31 22:34:33.272098646 -0500  
Change: 2018-12-31 22:35:45.992102114 -0500  
Birth: -  
[root@TechArkit-Server archive]#
```

```
root@TechArkit-Server ~]# mkdir /scripts  
root@TechArkit-Server ~]# cd /scripts/  
root@TechArkit-Server scripts]# vi morethanxdays.sh
```



The screenshot shows a web browser window with multiple tabs. The active tab is 'shell-scripting-tutorial/morethanxdays.sh'. The address bar shows the URL 'github.com/techarkit/shell-scripting-tutorial/blob/FOTV/morethanxdays.sh'. The page content displays a shell script file named 'morethanxdays.sh' with the following code:

```
3  # Refer Youtube Link for explanation https://youtu.be/13h0rWgAAA
4  ls -ltr /fullbackup/archive/ | awk '{print $9}' > /scripts/dirs
5  for i in `cat /scripts/dirs`; do
6  STARTTIME=$(date +%s -d"$i 00:00:00")
7  ENDTIME=$(date +%s)
8  echo $((ENDTIME-STARTTIME)) | awk '{print int($1/60)}' > /scripts/value
9  COUNT=`cat /scripts/value`
10 if [ $COUNT -gt 2880 ]; then
11 echo "Directories are older than 2days $i" >> /scripts/joblog
12 rm -rf /fullbackup/archive/$i
13 fi
14 done
```

```
#!/bin/bash
## Delete the Directories older than 2 days based on directory name validation
ls -ltr /fullbackup/archive/ | awk '{print $9}' > /scripts/dirs
for i in `cat /scripts/dirs`; do
STARTTIME=$(date +%s -d"$i 00:00:00")
ENDTIME=$(date +%s)
echo $((ENDTIME-STARTTIME)) | awk '{print int($1/60)}' > /scripts/value
COUNT=`cat /scripts/value`
if [ $COUNT -gt 2880 ]; then
echo "Directories are older than 2days $i" > /scripts/joblog
rm -rf /fullbackup/archive/$i
fi
done
~
~
~
```

```
[root@TechArkit-Server ~]# mkdir /scripts
[root@TechArkit-Server ~]# cd /scripts/
[root@TechArkit-Server scripts]# vi morethanxdays.sh
[root@TechArkit-Server scripts]# ls -ltr /fullbackup/archive/ | awk '{print $9}'
```

2018-12-28

2018-12-27

2018-12-26

2018-12-25

2018-12-24

2019-01-01

2018-12-31

2018-12-30

2018-12-29

```
[root@TechArkit-Server scripts]# vi morethanxdays.sh
```

```
[root@TechArkit-Server scripts]# vim morethanxdays.sh
```

```
[root@TechArkit-Server scripts]# date +%s -d"2019-01-01 00:00:00"
```

1546318800

```
[root@TechArkit-Server scripts]#
```

```
[root@TechArkit-Server scripts]# date +%s
```

1546314309

```
[root@TechArkit-Server scripts]# date +%s -d"2019-01-01 00:00:00"
```

1546318800

```
[root@TechArkit-Server scripts]#
```

```
[root@TechArkit-Server ~]#
```

```
[root@TechArkit-Server ~]# vim /scripts/morethanxdays.sh
```

```
[root@TechArkit-Server ~]# chmod u+x /scripts/morethanxdays.sh
```

```
[root@TechArkit-Server ~]# sh /scripts/morethanxdays.sh^C
```

```
[root@TechArkit-Server ~]# ls /fullbackup/archive/
```

2018-12-24 2018-12-26 2018-12-28 2018-12-30 2019-01-01

2018-12-25 2018-12-27 2018-12-29 2018-12-31

```
[root@TechArkit-Server ~]# sh /scripts/morethanxdays.sh
```

```
[root@TechArkit-Server ~]# ls /fullbackup/archive/
```

2018-12-30 2018-12-31 2019-01-01

```
[root@TechArkit-Server ~]# date
```

Mon Dec 31 22:47:09 EST 2018

```
[root@TechArkit-Server ~]#
```

I


```
[root@TechArkit-Server ~]# date
Mon Dec 31 22:47:09 EST 2018
[root@TechArkit-Server ~]# cat /scripts/joblog
Directories are older than 2days 2018-12-29
[root@TechArkit-Server ~]# cat /scripts/value
4246
[root@TechArkit-Server ~]# cat /scripts/dirs

2018-12-28
2018-12-27
2018-12-26
2018-12-25
2018-12-24
2019-01-01
2018-12-31
2018-12-30
2018-12-29
[root@TechArkit-Server ~]#
```

CPU, Memory, Disk Utilization Report from Multiple Servers Shell Script



Collecting and storing CPU, Memory and Disk Usage Report from servers in single file. Using single shell script.

```
root@Siddhartha:~# mkdir scripts
root@Siddhartha:~# ls
morethanxdays.sh  scripts
root@Siddhartha:~# cd scripts
root@Siddhartha:~/scripts#
```

```
HOSTNAME=$(hostname)
DATET=$(date +%Y-%m-%d %H:%M:%S)|
CPUUSAGE=$(top -b -n 2 -d1 | grep "Cpu(s)" | tail -n1 | awk '{print $2}' | awk -F. '{print $1}')
MEMUSAGE=$(free | grep Mem | awk '{print $3/$2 * 100.0}')
DISKUSAGE=$(df -h / | awk '{print $5}' | tail -n 1 | sed 's/%//g')

echo 'HostName, Date&Time, CPU(%), MEM(%), DISK(%)' >> /opt/usagereport
echo "$HOSTNAME, $DATET, $CPUUSAGE, $MEMUSAGE, $DISKUSAGE" >> /opt/usagereport

for i in `cat /scripts/hostlist`
do
RHOST=$(ssh $i hostname)
RDATET=$(ssh $i 'date +%Y-%m-%d %H:%M:%S')
RCPUUSAGE=$(ssh $i top -b -n 2 -d1 | grep "Cpu(s)" | tail -n1 | awk '{print $2}' | awk -F. '{print $1}')
RMEMUSAGE=$(ssh $i free | grep Mem | awk '{print $3/$2 * 100.0}')
RDISKUSAGE=$(ssh $i df -P / | column -t | awk '{print $5}' | tail -n 1 | sed 's/%//g')

echo "$RHOST, $RDATET, $RCPUUSAGE, $RMEMUSAGE, $RDISKUSAGE" >> /opt/usagereport
done
```

```
root@Siddhartha: ~/scripts
root@Siddhartha:~/scripts# df -P |column -t |awk '{print $5}'
Capacity
1%
85%
1%
1%
0%
1%
1%
0%
0%
0%
1%
1%
85%
69%
21%
0%
root@Siddhartha:~/scripts#
```

```
root@Siddhartha:~/scripts
192.168.2.50
192.168.2.10
```

```
root@Siddhartha:~/scripts# vi hostlist
root@Siddhartha:~/scripts# ls
cpumemdisk.sh  hostlist
root@Siddhartha:~/scripts#
```

```
root@Siddhartha: ~/scripts
192.168.2.50
192.168.2.10
~
~
```

```

root@Siddhartha:~# ls
scripts
root@Siddhartha:~# cat .ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQGDdrbw9g5rFCrcZmDXPTk8KN9zSnX/pRtIJ5Ucqm0xViVwyZbBUJvMQ
qy8phw79VQQceA8bCq10CQaup7JctRpJprX5M/9ZTvpgwvCPm9v4pSyi2qKvrdSDx7edVeIRGUusXoShtzWikDPTVrpX
U4vgv4WxeZ+F64MxejEEhJdyeY+3BTGrAgEqN353lapVctddBo19bTPSJU6dEi300KazbgW5/faCkksRGpTZiZupLb7
L/xF9ZjmFzjtF001DFK/ByRC09AgFiibbzmpWyyv+bPFLEuVPa189bowxjX7XiOiIJNqx7PjLIg4HelnHNYJHCLJ36hm
J+XPtZef9iqH61+oLi4x7xsMX9+5N1LZIXoqv6Cr656RuimRBTQgwy3DLA7L/FFE986MuZ87aEUN3ZC0LcK6qHEHLG7V
cF/GIEivx6qd/UJKm0K9fnK5n+gTs5t/95DT9TMIP+r34g07or1/Pzsv09mo8= root@Siddhartha
root@Siddhartha:~#

```

```

root@Siddhartha: ~
root@Siddhartha:~# ssh 192.168.2.50

```

```

The authenticity of host '192.168.2.50 (192.168.2.50)' can't be established.
ECDSA key fingerprint is SHA256:UB5xmAtfqUtdYLPKQAYnaQHfVI8mbwy1CQ0+gI4/EJ4.
ECDSA key fingerprint is MD5:53:2b:d7:cl:b9:a9:31:17:cb:44:fb:bf:6f:4b:16:39.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.2.50' (ECDSA) to the list of known hosts.
root@192.168.2.50's password:

```

```

root@Siddhartha:~# ls -ls

```

```

total 20
4 -rw----- 1 root root 1806 Jan 23 02:57 anaconda-ks.cfg
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Desktop
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Documents
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Downloads
4 -rw-r--r-- 1 root root 1854 Jan 22 21:31 initial-setup-ks.cfg
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Music
4 -rw-r--r-- 1 root root  905 Mar 19 22:11 NagiosXi
4 -rw-r--r-- 1 root root  13 Apr 16 21:33 passwdfile
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Pictures
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Public
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Templates
4 -rw-r--r-- 1 root root  907 Apr 16 22:48 test.zip
0 drwxr-xr-x 2 root root  6 Jan 22 21:37 Videos
[root@TechArkit ~]# ls -l

```

```

root@Siddhartha:~# cd .ssh/
root@Siddhartha:~/.ssh# ls
authorized_keys  id_rsa  id_rsa.pub
root@Siddhartha:~/.ssh# vim authorized_keys
root@Siddhartha:~/.ssh#

```



```
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQgQDdrbw9g5rFCrcZmDXPTk8KN9zSnX/pRtIJ5Ucqm0xViVwyZbBUJvMQ
qy8phw79VQQceA8bCq10CQAup7JctRpJprX5M/9ZTvpgwvCPm9v4pSyi2qKvrdsDx7edVeIRGUusXoShtzWikDPTVrpX
U4vgv4WXeZ+F64MxejEEhJdyeY+3BTGrAgEqN353lapVctddBo19bTPSJU6dEi300KazbgW5/faCkkwsRGpTZiZupLb7
L/xF9ZjmfzjtF001DFK/ByPRC09AgFiibbzmpWyyv+bPFLuVpa189bowxjX7Xi0iIJNqx7PjLIg4HeLnHNYJHCLJ36hm
J+XPtZef9iqH61+oLi4x7xsMX9+5N1lZIXoqv6Cr656RuimRBTQgwy3DLA7L/FFE986MuZ87aEUN3ZC0LcK6qHEHLG7V
cF/GIEivx6qd/UJKm0K9fnK5n+gTs5t/95DT9TMIP+r34g07or1/Pzsv09mo8= root@Siddhartha
```

```
root@Siddhartha:~# cd .ssh/
root@Siddhartha:~/.ssh# ls
authorized_keys  id_rsa  id_rsa.pub
root@Siddhartha:~/.ssh# vim authorized_keys
root@Siddhartha:~/.ssh# cd
root@Siddhartha:~# exit
logout
siddhartha@Siddhartha:~$
```

```
root@Siddhartha:~# ls
scripts
root@Siddhartha:~# ssh 192.168.2.50
```

```
Select root@Siddhartha: ~
root@Siddhartha:~/scripts# vi hostlist
root@Siddhartha:~/scripts# cd ..
root@Siddhartha:~# ssh 127.0.0.1
The authenticity of host '127.0.0.1 (127.0.0.1)' can't be established.
ED25519 key fingerprint is SHA256:TFWc9/iF RJAxEsuDW3T6J0Sk+vsJcy2x1bM21M1kdXg.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '127.0.0.1' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 5.15.133.1-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.

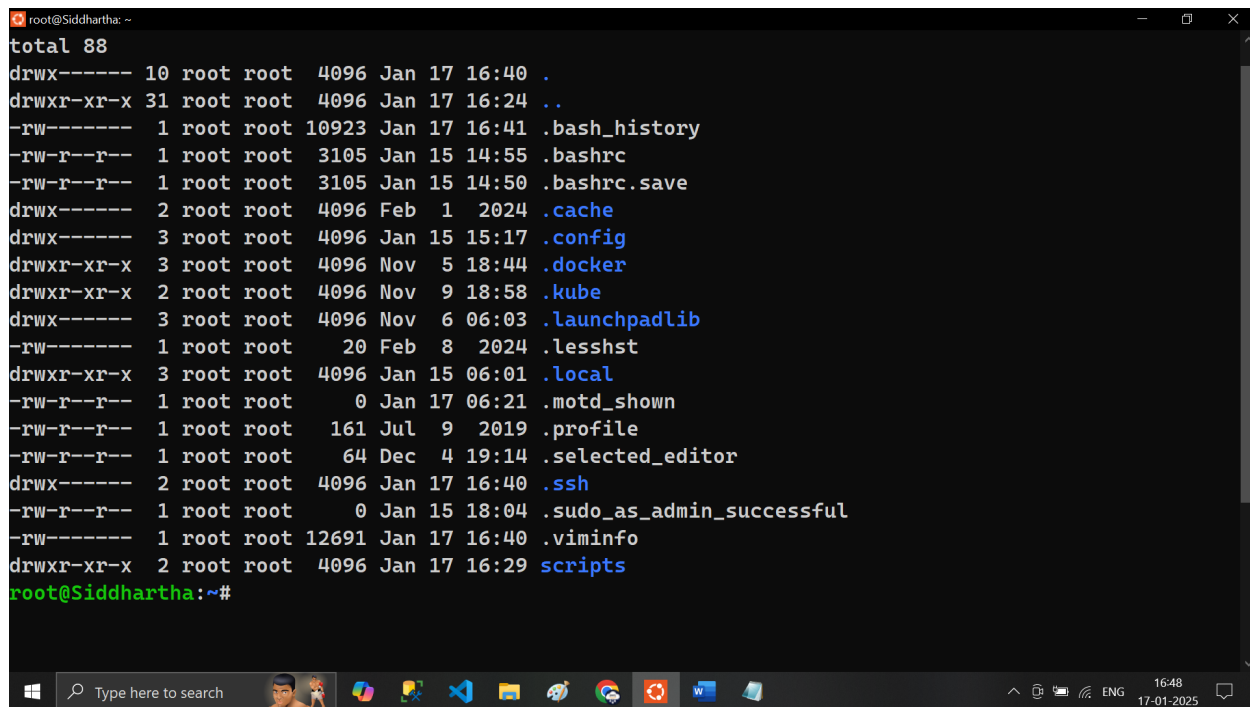
https://ubuntu.com/engage/secure-kubernetes-at-the-edge
New release '24.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sat Nov  9 19:35:32 2024
root@Siddhartha:~#
```

```
The authenticity of host '192.168.2.10 (192.168.2.10)' can't be established.  
ECDSA key fingerprint is SHA256:ypVw7VKYpnsMmTMYmO8w9j8rLMQi3EnFjXFRZ/vd7E0.  
ECDSA key fingerprint is MD5:6e:ab:c4:8a:66:7c:43:a7:2a:3c:a8:d7:1d:c2:53:ba.  
Are you sure you want to continue connecting (yes/no)? yes  
Warning: Permanently added '192.168.2.10' (ECDSA) to the list of known hosts.  
root@192.168.2.10's password:
```

```
root@Siddhartha:~# ls -ls
```

#LS-LA



```
root@Siddhartha: ~  
total 88  
drwx----- 10 root root 4096 Jan 17 16:40 .  
drwxr-xr-x 31 root root 4096 Jan 17 16:24 ..  
-rw----- 1 root root 10923 Jan 17 16:41 .bash_history  
-rw-r--r-- 1 root root 3105 Jan 15 14:55 .bashrc  
-rw-r--r-- 1 root root 3105 Jan 15 14:50 .bashrc.save  
drwx----- 2 root root 4096 Feb 1 2024 .cache  
drwx----- 3 root root 4096 Jan 15 15:17 .config  
drwxr-xr-x 3 root root 4096 Nov 5 18:44 .docker  
drwxr-xr-x 2 root root 4096 Nov 9 18:58 .kube  
drwx----- 3 root root 4096 Nov 6 06:03 .launchpadlib  
-rw----- 1 root root 20 Feb 8 2024 .lessht  
drwxr-xr-x 3 root root 4096 Jan 15 06:01 .local  
-rw-r--r-- 1 root root 0 Jan 17 06:21 .motd_shown  
-rw-r--r-- 1 root root 161 Jul 9 2019 .profile  
-rw-r--r-- 1 root root 64 Dec 4 19:14 .selected_editor  
drwx----- 2 root root 4096 Jan 17 16:40 .ssh  
-rw-r--r-- 1 root root 0 Jan 15 18:04 .sudo_as_admin_successful  
-rw----- 1 root root 12691 Jan 17 16:40 .viminfo  
drwxr-xr-x 2 root root 4096 Jan 17 16:29 scripts  
root@Siddhartha:~#
```

```
root@Siddhartha:~# cd scripts  
root@Siddhartha:~/scripts# ls  
cpumemdisk.sh hostlist  
root@Siddhartha:~/scripts# bash cpumemdisk.sh
```

O/P

```
root@Siddhartha:~/scripts# cat /opt/usagereport  
HostName, Date&Time, CPU(%), MEM(%), DISK(%)  
Siddhartha, 2025-01-17 16:49:22, 0, 4.77881, 1  
root@Siddhartha:~/scripts#
```

Here Documents in Shell Scripts



```
[aravi@TechArkit:~]$ template
Please provide filename you want create: heredoc
[aravi@TechArkit:~]$ cd /scripts/
[aravi@TechArkit:/scripts]$ vi heredoc.sh
```

```
ftp -n <<- EOF 2> /dev/null
    open ftp.server.com
    user ftp ftp
    ascii
    cd uploadfolder
    mput file1 file1 file2
    bye

EOF
```