

## BASH script for HEARTBEAT job

```
#!/bin/bash
#
white="\033[1;23m"
cyan="\033[1;36m"
reset="\033[0m"
echo " "
echo -e "${white}-----System
Information-----${reset}"
echo -e "${cyan}Hostname:${reset}\t\t"hostname -f
echo -e "${cyan}IP Address:${reset}\t\t"hostname -I
echo -e "${cyan}Uptime:${reset}\t\t"uptime | awk '{print $3,$4}' | sed 's/,//'
echo -e "${cyan}Machine Type:${reset}\t\t"vserver=$(lscpu | grep Hypervisor | wc -l); if [
$vserver -gt 0 ]; then echo "VM"; else echo "Physical"; fi
echo -e "${cyan}Product Name:${reset}\t\t"cat /sys/class/dmi/id/product_name
echo -e "${cyan}Operating System:${reset}\t\t"cat /etc/redhat-release
echo -e "${cyan}Kernel:${reset}\t\t"uname -r
echo -e "${cyan}Architecture:${reset}\t\t"arch
echo -e "${cyan}Processor Name:${reset}\t\t"awk -F:' ' /^model name/ {print $2}' /proc/cpuinfo |
uniq | sed -e 's/^[ \t]*//'
echo -e "${cyan}CPU Cores:${reset}\t\t"grep -c ^processor /proc/cpuinfo
echo -e "${cyan}Total RAM:${reset}\t\t"free -h | awk '/^Mem:/{print $2}'
echo -e "${cyan}Disk Usage:${reset}\t\t"
df -h | grep '^/dev/'
echo -e "${cyan}Load Average:${reset}\t\t"uptime | awk -F'load average:' '{ print $2 }'
echo " "
echo -e "${white}-----Resource
Usage-----${reset}"
echo -e "${cyan}CPU Usage:${reset}\t\t"awk '{u=$2+$4; t=$2+$4+$5; if (NR==1){u1=u; t1=t;}
else print ($2+$4-u1) * 100 / (t-t1) "%";}' <(grep 'cpu ' /proc/stat) <(sleep 1; grep 'cpu ' /proc/stat)
echo -e "${cyan}Memory Usage:${reset}\t\t"free | awk '/Mem/{printf("%.2f%%"), $3/$2*100}'
echo -e "${cyan}Swap Usage:${reset}\t\t"free | awk '/Swap/{printf("%.2f%%"), $3/$2*100}'
echo -e "${cyan}Top 5 Processes by CPU Usage:${reset}"
ps -eo pid,ppid,cmd,%mem,%cpu --sort=-%cpu | head -6
echo -e "${cyan}Top 5 Processes by Memory Usage:${reset}"
ps -eo pid,ppid,cmd,%mem,%cpu --sort=-%mem | head -6
echo -e "${cyan}Disk I/O:${reset}\t\t"
iostat -x | head -10
echo -e "${cyan}Network Usage:${reset}\t\t"
netstat -i | grep -vE '^Kernel|iface|lo'
echo -e "${cyan}Active Network Connections:${reset}"
netstat -ant | grep 'ESTABLISHED'
echo -e "${cyan}Swap Activity:${reset}"
```

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vmstat 1 5
echo -e "${cyan}Zombie Processes:${reset}\t\t"
ps aux | awk '{ if ($8 == "Z") print $0; }'
echo -e "${cyan}System Temperature:${reset}\t\t"
sensors | grep 'Core'
echo " "

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Output:

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-----System Information-----
Hostname:          hostname -f
IP Address:        hostname -I

Machine Type:      vserver=1
./heart.sh: line 11: [: -gt: unary operator expected
Physical
Product Name:      cat /sys/class/dmi/id/product_name
Operating System:  cat /etc/redhat-release
Kernel:            uname -r
Architecture:      arch
Processor Name:     awk -F: /^model name/ {print $2} /proc/cpuinfo
CPU Cores:          grep -c ^processor /proc/cpuinfo
Disk Usage:
/dev/sdc           1007G  1.7G  954G   1% /

-----Resource Usage-----
CPU Usage:          awk {u=$2+$4; t=$2+$4+$5; if (NR==1){u1=u; t1=t;} else print ($2+$4-u1) * 100 / (t-t1) "%";} /dev/fd/63 /dev/fd/62
awk: cmd. line:1: (FILENAME=- FNR=1) fatal: division by zero attempted
awk: cmd. line:1: (FILENAME=- FNR=1) fatal: division by zero attempted
Top 5 Processes by CPU Usage:
  PID   PPID  CMD                                %MEM %CPU
  469     301 /bin/bash ./heart.sh                0.0 14.2
    1      0 /sbin/init                          0.1  0.6
  101      1 /usr/lib/systemd/systemd-ud         0.0  0.2
   56      1 /usr/lib/systemd/systemd-jo         0.2  0.2
  111      1 /usr/lib/systemd/systemd-re         0.1  0.2
Top 5 Processes by Memory Usage:
  PID   PPID  CMD                                %MEM %CPU
  208      1 /usr/bin/python3 /usr/share         0.2  0.1
   56      1 /usr/lib/systemd/systemd-jo         0.2  0.2
  174      1 /usr/libexec/wsl-pro-servic         0.2  0.1
    1      0 /sbin/init                          0.1  0.6
  111      1 /usr/lib/systemd/systemd-re         0.1  0.2
Disk I/O:
./heart.sh: line 32: iostat: command not found
Network Usage:
./heart.sh: line 34: netstat: command not found
Active Network Connections:
./heart.sh: line 36: netstat: command not found
Swap Activity:
procs -----memory----- --swap-- -----io----- --system-- -----cpu-----
 r b  swpd  free  buff  cache   si   so    bi    bo    in   cs us sy id wa st gu
 0 0    0 6999544 35204 381924    0    0 2092  158 519    0 0 0 99  0 0 0
 0 0    0 6999544 35204 381948    0    0    0    0 16   75 0 0 100  0 0 0
 0 0    0 6999352 35204 381996    0    0    0    0  4   36 0 0 100  0 0 0
 0 0    0 6999352 35204 381996    0    0    0    0  3   30 0 0 100  0 0 0
 0 0    0 6999352 35204 381996    0    0    0    0  5   48 0 0 100  0 0 0
Zombie Processes:
System Temperature:
./heart.sh: line 42: sensors: command not found

```