Linux System and Hardware Related Commands Cheatsheet

System	Descriptions
df -h	Display disk space of file systems
finger <username>	Display the information about the user
hostname	Shows the system hostname
free -m	Check the amount of used, free and total amount of RAM
Hostname -i	Sisplay the IP address of the system
last reboot	Shows the system reboot history
timedatectl	Query and change the system clock
uname -a	Display the Linux information
Uname -r	Display the kernel information
utime	Display how long the system has been running including the load average
w	Display currently logged in users in the system
whoami	Display who you are logged in

Hardware	Descriptions
badblocks -s/dev/xda	Test for unreadable blocks on disk
cat /proc/cpuinfo	Displays more information about CPU eg. model, model name,cores,vendor id
cat /proc/meminfo	Display the more information about hardware memory e.g total and free memory
cat /proc/partitions	Display hard disk partitions
dmidecode	Display hardware information from the BIOS
dmidecode -t bios	Information about BIOS
dmidecode -t memory	Information about RAM
dmidecode -t memory | grep -i size	Show the # of RAM slots and size
dmidecode -t processor	Information about CPU
dmseg	Display bootup messages
free -m	Display free and used memory in the system (-m flag indicates memory in MB)
hdparm -i /dev/xda	Display information about the disk data
hdparm -t /dev/xda	Conducts a read speed test on device xda
lsblk	Display the block device related information
lscpu	Display information about your cpu
lshw	Display information about system's hardware configuration
lshw -C network	Display network devices
lshw -html > hardware.html && firefox hardware.html	Output hardware information to a formatted html file and display it in the browser
lspci -tv	Display PCI devices in a tree-like diagram
lsusb -tv	Display USB devices in a tree-like diagram
mount | column -t	View mounted file systems in columns

View System Information on Linux Every Time You Log into the Shell

```
#!/bin/bash
echo -e "------------------------------System Information----------------------------"
echo -e "Hostname:\t\t"`hostname`
echo -e "uptime:\t\t\t"`uptime | awk '{print $3,$4}' | sed 's/,//'`
echo -e "Manufacturer:\t\t"`cat /sys/class/dmi/id/chassis_vendor`
echo -e "Product Name:\t\t"`cat /sys/class/dmi/id/product_name`
echo -e "Version:\t\t"`cat /sys/class/dmi/id/product_version`
echo -e "Serial Number:\t\t"`cat /sys/class/dmi/id/product_serial`
echo -e "Machine Type:\t\t"`vserver=$(lscpu | grep Hypervisor | wc -l); if [ $vserver -gt 0 ]; then echo "VM"; else
echo "Physical"; fi`
echo -e "Operating System:\t"`hostnamectl | grep "Operating System" | cut -d ' ' -f5-`
echo -e "Kernel:\t\t\t"`uname -r`
echo -e "Architecture:\t\t"`arch`
echo -e "Processor Name:\t\t"`awk -F':' '/^model name/ {print $2}' /proc/cpuinfo | uniq | sed -e 's/^[ \t]*//'`
echo -e "Active User:\t\t"`w | cut -d ' ' -f1 | grep -v USER | xargs -n1`
echo -e "System Main IP:\t\t"`hostname -I`
echo ""
echo -e "------------------------------CPU/Memory Usage------------------------------"
echo -e "Memory Usage:\t"`free | awk '/Mem/{printf("%.2f%"), $3/$2*100}'`
echo -e "Swap Usage:\t"`free | awk '/Swap/{printf("%.2f%"), $3/$2*100}'`
echo -e "CPU Usage:\t"`cat /proc/stat | awk '/cpu/{printf("%.2f%\n"), ($2+$4)*100/($2+$4+$5)}' |  awk '{print $0}' |
head -1`
echo ""
echo -e "------------------------------Disk Usage >80%-------------------------------"
df -Ph | sed s/%//g | awk '{ if($5 > 80) print $0;}'
echo ""
echo -e "------------------------------For WWN Details-------------------------------"
vserver=$(lscpu | grep Hypervisor | wc -l)
if [ $vserver -gt 0 ]
then
echo "$(hostname) is a VM"
else
cat /sys/class/fc_host/host?/port_name
fi
echo ""
echo -e "------------------------------Oracle DB Instances---------------------------"
if id oracle >/dev/null 2>&1; then
/bin/ps -ef|grep pmon
then
else
echo "oracle user does not exist on $(hostname)"
```

```
fi
echo ""
if (( $(cat /etc/*-release | grep -w "Oracle|Red Hat|CentOS|Fedora" | wc -l) > 0 ))
then
echo -e "------------------------------Package Updates--------------------------------"
yum updateinfo summary | grep 'Security|Bugfix|Enhancement'
echo -e "-----------------------------------------------------------------------------"
else
echo -e "------------------------------Package Updates--------------------------------"
cat /var/lib/update-notifier/updates-available
echo -e "-----------------------------------------------------------------------------"
fi
```