

```
localhost login: root
Password:
Last login: Thu Oct 21 18:37:11 on ttys1
[root@localhost ~]# groupadd sales
[root@localhost ~]# useradd a1
useradd: user 'a1' already exists
[root@localhost ~]# useradd sales1
[root@localhost ~]# redhat123
-bash: redhat123: command not found
[root@localhost ~]# passwd sales1
Changing password for user sales1.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]# useradd sales2
[root@localhost ~]# passwd sales2
Changing password for user sales2.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]# usermod -aG sales sales1
[root@localhost ~]# usermod -aG sales sales2
[root@localhost ~]# chown :sales /home/consultants/
[root@localhost ~]#
[root@localhost ~]# ls -ld sales
ls: cannot access sales: No such file or directory
[root@localhost ~]# ls -ld /home/consultants/
ls: invalid option -- '/'
Try 'ls --help' for more information.
[root@localhost ~]# ls -ld /home/consultants/
drwxrwxr--. 3 root sales 17 Oct 16 18:04 /home/consultants/
[root@localhost ~]# chmod 2771 /home/consultants/
[root@localhost ~]# ls -ld /home/consultants/
drwxrwsr--. 3 root sales 17 Oct 16 18:04 /home/consultants/
[root@localhost ~]# history
```

```
-----  
"kashish" 1L, 27C written  
[sales2@localhost consultants]$ su root  
Password:  
[root@localhost consultants]# chmod o+t /home/consultants/  
[root@localhost consultants]# su sales1  
[sales1@localhost consultants]$  
[sales1@localhost consultants]$ ls  
kashish  ppp  
[sales1@localhost consultants]$ su sales2  
Password:  
[sales2@localhost consultants]$ ls -l  
total 4  
-rw-rw-r--. 1 sales1 sales 77 Oct 21 11:30 kashish  
drwxrwxr-x. 2 a1 a1 6 Oct 16 10:01 ppp  
[sales2@localhost consultants]$ rm kashish  
rm: cannot remove 'kashish': Operation not permitted  
[sales2@localhost consultants]$
```

```
CentOS Linux 7 (Core)
Kernel 3.10.0-693.el7.x86_64 on an x86_64

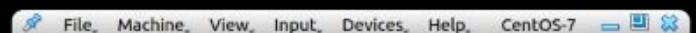
localhost login: root
Password:
Last login: Thu Oct 21 12:23:17 on ttys0
[root@localhost ~]# id sales1
uid=1003(sales1) gid=1005(sales1) groups=1005(sales1),1004(sales)
[root@localhost ~]# sudo usermod -u 2000 sales1
[root@localhost ~]# id sales1
uid 2000(sales1) gid=1005(sales1) groups=1005(sales1),1004(sales)
[root@localhost ~]# id sales2
uid=1004(sales2) gid=1006(sales2) groups=1006(sales2),1004(sales)
[root@localhost ~]# sudo usermod -u 2000 sales2
usermod: UID '2000' already exists
[root@localhost ~]# echo $SHELL
/bin/bash
[root@localhost ~]# usermod -s /sbin/nologin sales1
[root@localhost ~]# echo $SHELL
/bin/bash
[root@localhost ~]#
```

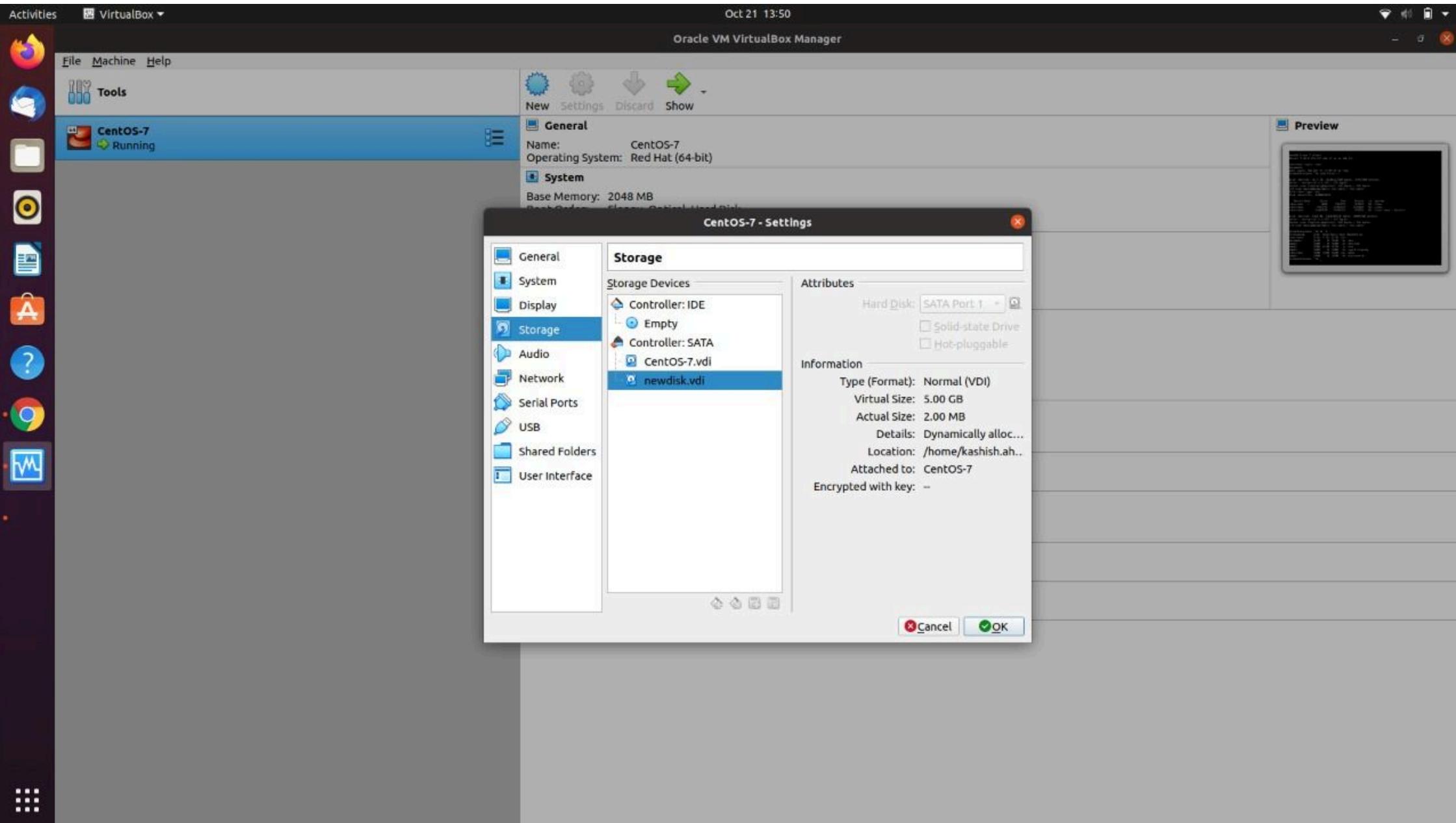
```
CentOS Linux 7 (Core)
Kernel 3.10.0-693.el7.x86_64 on an x86_64

localhost login: root
Password:
Last login: Thu Oct 21 12:23:17 on ttys0
[root@localhost ~]# id sales1
uid=1003(sales1) gid=1005(sales1) groups=1005(sales1),1004(sales)
[root@localhost ~]# sudo usermod -u 2000 sales1
[root@localhost ~]# id sales1
uid 2000(sales1) gid=1005(sales1) groups=1005(sales1),1004(sales)
[root@localhost ~]# id sales2
uid=1004(sales2) gid=1006(sales2) groups=1006(sales2),1004(sales)
[root@localhost ~]# sudo usermod -u 2000 sales2
usermod: UID '2000' already exists
[root@localhost ~]# echo $SHELL
/bin/bash
[root@localhost ~]# usermod -s /sbin/nologin sales1
[root@localhost ~]# echo $SHELL
/bin/bash
[root@localhost ~]# cat /etc/shells
/bin/sh
/bin/bash
/sbin/nologin
/usr/bin/sh
/usr/bin/bash
/usr/sbin/nologin
[root@localhost ~]# chsh -s /sbin/nologin sales1
Changing shell for sales1.
chsh: Shell not changed.
[root@localhost ~]# echo $SHELL
/bin/bash
[root@localhost ~]# chsh -s /sbin/nologin sales1
Changing shell for sales1.
chsh: Shell not changed.
[root@localhost ~]#
```

```
129 sudo usermod -u 2000 sales1
130 id sales1
131 id sales2
132 sudo usermod -u 2000 sales2
133 echo $$SHELL
134 usermod -s /sbin/nologin sales1
135 echo $$SHELL
136 cat /etc/shells
137 chsh -s /sbin/nologin sales1
138 echo $$SHELL
139 chsh -s /sbin/nologin sales1
140 exit
141 clear
142 echo $root
143 clear
144 echo $$SHELL
145 chsh -s /sbin/nologin sales2
146 echo $$SHELL
147 su sales1
148 su sales2
149 history
[root@localhost ~]# su sales1
This account is currently not available.
[root@localhost ~]# ps
  PID TTY      TIME CMD
 4261 ttym1    00:00:00 bash
 4289 ttym1    00:00:00 ps
[root@localhost ~]# sales1 -c
-bash: sales1: command not found
[root@localhost ~]# sales1 -c "Sales"
-bash: sales1: command not found
[root@localhost ~]# usermod -c "Sales" sales1
[root@localhost ~]# tail -n3 /etc/passwd
simran:x:1002:1003::/home/simran:/bin/bash
sales1:x:2000:1005:Sales:/home/sales1:/sbin/nologin
sales2:x:1004:1006::/home/sales2:/sbin/nologin
[root@localhost ~]#
```

```
[root@localhost ~]# echo $SHELL  
/bin/bash  
[root@localhost ~]# chsh -s /sbin/nologin sales2  
Changing shell for sales2.  
Shell changed.  
[root@localhost ~]# echo $SHELL  
/bin/bash  
[root@localhost ~]# _
```





```

This account is currently not available.
[root@localhost ~]# ps
  PID TTY          TIME CMD
 4261 ttys000    00:00:00 bash
 4209 ttys000    00:00:00 ps
[root@localhost ~]# sales1 -c
-bash: sales1: command not found
[root@localhost ~]# sales1 -c "Sales"
-bash: sales1: command not found
[root@localhost ~]# usermod -c "Sales" sales1
[root@localhost ~]# tail -n3 /etc/passwd
simran:x:1002:1003::/home/simran:/bin/bash
sales1:x:2000:1005:Sales:/home/sales1:/sbin/nologin
sales2:x:1004:1006:/home/sales2:/sbin/nologin
[root@localhost ~]# sudo fdisk -l

Disk /dev/sda: 16.1 GB, 16186127360 bytes, 31457208 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x000a9b7d

      Device Boot   Start     End   Blocks Id System
/dev/sda1  *       2048  1953791   975872  83 Linux
/dev/sda2       1953792  21403519   9764064  83 Linux
/dev/sda3       21483520  23435263   975872  82 Linux swap / Solaris
[root@localhost ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda2       9.4G  1.1G  8.3G  12% /
devtmpfs        911M    0  911M   0% /dev
tmpfs          928M    0  928M   0% /dev/shm
tmpfs          928M  8.4M  912M   1% /run
tmpfs          928M    0  928M   0% /sys/fs/cgroup
/dev/sda1       958M  135M  816M  15% /boot
tmpfs         184M    0  184M   0% /run/user/0
[root@localhost ~]#

```

```
CentOS Linux 7 (Core)
Kernel 3.10.0-693.el7.x86_64 on an x86_64

localhost login: root
Password:
Last login: Thu Oct 21 13:01:59 on ttys0
root@localhost ~]# sudo fdisk -l

Disk /dev/sda: 16.1 GB, 16106127360 bytes, 31457280 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x8000a9b7d

Device Boot Start End Blocks Id System
/dev/sda1 * 2848 1953791 975872 83 Linux
/dev/sda2 1953792 21483519 9764864 83 Linux
/dev/sda3 21403528 23435263 975072 82 Linux swap / Solaris

Disk /dev/sdb: 5368 MB, 5368709120 bytes, 10485760 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

root@localhost ~]# df -h
Filesystem Size Used Avail Use% Mounted on
/dev/sda2 9.4G 1.1G 8.3G 12% /
devtmpfs 911M 0 911M 0% /dev
tmpfs 928M 0 928M 0% /dev/shm
tmpfs 928M 0.4M 912M 1% /run
tmpfs 928M 0 928M 0% /sys/fs/cgroup
/dev/sda1 958M 135M 816M 15% /boot
tmpfs 104M 0 104M 0% /run/user/0
root@localhost ~]# _
```

```
/dev/sda2      1953792    21483519    9764864   83  Linux
/dev/sda3     21483520    23435263    975072   82  Linux swap / Solaris

Disk /dev/sdb: 5368 MB, 5368789120 bytes, 10485760 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

[root@localhost ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda2       9.4G  1.1G  8.3G  12% /
devtmpfs        911M    0  911M   0% /dev
tmpfs          928M    0  928M   0% /dev/shm
tmpfs          928M  0.4M  912M  1% /run
tmpfs          928M    0  928M   0% /sys/fs/cgroup
/dev/sda1      958M  135M  816M  15% /boot
tmpfs          104M    0  104M   0% /run/user/0
[root@localhost ~]# sudo fdisk -l

Disk /dev/sda: 16.1 GB, 16186127360 bytes, 31457208 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x000a9b7d

      Device Boot      Start        End      Blocks  Id  System
/dev/sda1  *        2048    1953791    975872   83  Linux
/dev/sda2    1953792    21483519    9764864   83  Linux
/dev/sda3    21483520    23435263    975072   82  Linux swap / Solaris

Disk /dev/sdb: 5360 MB, 5360789120 bytes, 10485760 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

[root@localhost ~]#
```

```
151 ps
152 sales1 -c
153 sales1 -c "Sales"
154 usermod -c "Sales" sales1
155 tail -n3 /etc/passwd
156 sudo fdisk -l
157 df -h
158 exit
159 sudo fdisk -l
160 df -h
161 sudo fdisk -l
162 fdisk -l
163 fdisk /dev/sda
164 fdisk /dev/sdb
165 fdisk -l
166 mkfs.ext4 /dev/sdb1
167 mkdir /technology
168 rm /technology
169 rm -r /technology
170 mkdir datamountpoint
171 mount /dev/sdb1 /datamountpoint
172 df -h
173 ls
174 mount /dev/sdb1 /datamountpoint
175 history
[root@localhost ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda2       9.4G  1.1G  8.3G  12% /
devtmpfs        911M    8  910M   0% /dev
tmpfs          928M    0  928M   0% /dev/shm
tmpfs          928M  8.4M  912M   1% /run
tmpfs          928M    0  928M   0% /sys/fs/cgroup
/dev/sdb1       956M  135M  816M  15% /boot
tmpfs          184M    0  184M   0% /run/user/0
[root@localhost ~]# mount /dev/sdb1 /datamountpoint
mount: mount point /datamountpoint does not exist
[root@localhost ~]# _
```

```
155 tail -n3 /etc/passwd
156 sudo fdisk -l
157 df -h
158 exit
159 sudo fdisk -l
160 df -h
161 sudo fdisk -l
162 fdisk -l
163 fdisk /dev/sda
164 fdisk /dev/sdb
165 fdisk -l
166 mkfs.ext4 /dev/sdb1
167 mkdir /technology
168 rm /technology
169 rm -r /technology
170 mkdir datamountpoint
171 mount /dev/sdb1 /datamountpoint
172 df -h
173 ls
174 mount /dev/sdb1 /datamountpoint
175 history
176 df -h
177 mount /dev/sdb1 /datamountpoint
178 df -h
179 init 6
180 df -h
181 fdisk -l
182 mkfs -t
183 mkfs
184 mkfs -v
185 mkfs -t ext4 /dev/sdb1
186 mkdir /datamountpoint
187 ls
188 mount /dev/sdb1 /datamountpoint
189 df -h
190 history
root@localhost ~]# _
```

```
Filesystem label=
OS type: Linux
Block size=4896 (log=2)
Fragment size=4896 (log=2)
Stride=8 blocks, Stripe width=8 blocks
32768 inodes, 1310464 blocks
65523 blocks (5.00%) reserved for the super user
First data block=8
Maximum filesystem blocks=1342177280
40 block groups
32760 blocks per group, 32760 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
    32760, 90304, 163040, 229376, 294912, 019200, 004736

Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

[root@localhost ~]# mkdir /datamountpoint
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint
[root@localhost ~]# mount /dev/sdb1 /datamountpoint
[root@localhost ~]#
[root@localhost ~]#
[root@localhost ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda2       9.4G  1.1G  8.3G  12% /
devtmpfs        911M   8  911M   0% /dev
tmpfs          928M   8  928M   0% /dev/shm
tmpfs          928M  0.4M  912M  1% /run
tmpfs          928M   8  928M   0% /sys/fs/cgroup
/dev/sda1       958M  135M  816M  15% /boot
tmpfs          104M   8  104M   0% /run/user/0
/dev/sdb1       4.8G  28M  4.6G  1% /datamountpoint
[root@localhost ~]# _
```



Oct 22 08:03

centos7.0 on QEMU/KVM

```
[root@localhost ~]# nmcli connection show
NAME      UUID                                  TYPE      DEVICE
Bridge1  033ab5a5-645b-4421-b07f-ad4ca51a5349  bridge    nm-bridge
eth0     be22ce87-fe11-4a6f-a629-5c749928f249  882-3-ethernet  --
[root@localhost ~]# nmcli
nm-bridge: connected to Bridge1
  "nm-bridge"
    bridge, 26:D6:FB:03:98:58, sw, mtu 1500
    ip4 default
      inet4 192.168.10.1/24

eth0: disconnected
  "Red Hat Virtio network device"
    1 connection available
    ethernet (virtio_net), 52:54:98:E9:C1:4B, hw, mtu 1500

lo: unmanaged
  "lo"
    loopback (unknown), 00:00:00:00:00:00, sw, mtu 65536

DNS configuration:
  servers: 192.168.10.51
  interface: nm-bridge

Use "nmcli device show" to get complete information about known devices and
"nmcli connection show" to get an overview on active connection profiles.

Consult nmcli(1) and nmcli-examples(5) manual pages for complete usage details.
[root@localhost ~]# _
```

You have the **Auto capture keyboard** option turned on. This will cause the Virtual Machine to automatically **capture** the keyboard every time the VM window is activated and make it unavailable to other applications running on your host machine: when the keyboard is captured, all keystrokes (including system ones) will be sent to the VM.  

The Virtual Machine reports that the guest OS does not support **mouse pointer integration** in the current video mode. You need to capture the mouse (by clicking over the VM display or pressing the host key) in order to use the mouse inside the guest OS.  

```
[root@localhost ~]# for i in $(seq 1 4)
> do
> sha1sum /dev/zero &
> done
[1] 1113
[2] 1114
[3] 1115
[4] 1116
[root@localhost ~]#
```

top - 18:35:42 up 27 min, 1 user, load average: 4.83, 3.81, 1.44
 Tasks: 83 total, 5 running, 78 sleeping, 0 stopped, 0 zombie
 %Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
 KiB Mem : 1883560 total, 1635868 free, 118816 used, 136884 buff/cache
 KiB Swap : 975868 total, 975868 free, 0 used. 1614464 avail Mem

PID	USER	PR	NI	VIRT	RSS	SHR	S	%CPU	%MEM	TIME+ COMMAND
1113	root	20	0	116604	1068	788	R	25.2	0.1	1:42.32 sha1sum
1115	root	20	0	116604	1064	788	R	25.2	0.1	1:42.32 sha1sum
1116	root	20	0	116604	1068	788	R	24.9	0.1	1:42.33 sha1sum
1114	root	20	0	116604	1068	788	R	24.6	0.1	1:42.32 sha1sum
1122	root	20	0	0	0	0	S	0.3	0.0	0:00.04 kworker/0:1
1	root	20	0	128164	6808	4044	S	0.0	0.4	0:00.92 systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00 kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03 ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00 migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00 rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.40 rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.01 watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00 kdevtunfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00 khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00 kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00 ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01 khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 ksmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00 deferwq

```
top - 18:37:11 up 28 min, 1 user, load average: 4.01, 3.25, 1.67
Tasks: 83 total, 5 running, 78 sleeping, 0 stopped, 0 zombie
%Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
539	root	20	0	333940	28436	6668	S	0.0	1.5	0:00.42	firewalld
774	root	20	0	562392	16552	5876	S	0.0	0.9	0:00.39	tuned
521	polkitd	20	0	534132	10976	4596	S	0.0	0.6	0:00.02	polkitd
540	root	20	0	471776	8524	6408	S	0.0	0.5	0:00.10	NetworkManager
1	root	20	0	128164	6808	4044	S	0.0	0.4	0:00.92	systemd
512	root	20	0	212120	6796	2396	S	0.0	0.4	0:00.15	rsyslogd
377	root	20	0	46904	4872	2808	S	0.0	0.3	0:00.12	systemd-udevd
773	root	20	0	105996	4072	3096	S	0.0	0.2	0:00.01	sshd
1017	postfix	20	0	89716	4012	3008	S	0.0	0.2	0:00.01	qmgr
1016	postfix	20	0	89648	3992	2988	S	0.0	0.2	0:00.01	pickup
532	root	20	0	94384	2448	1784	S	0.0	0.1	0:00.16	login
357	root	20	0	36828	2324	2016	S	0.0	0.1	0:00.07	systemd-journal
1119	root	20	0	157584	2120	1500	R	0.3	0.1	0:00.25	top
1014	root	20	0	89544	2084	1068	S	0.0	0.1	0:00.02	master
1085	root	20	0	115388	2036	1636	S	0.0	0.1	0:00.03	bash
513	dbus	20	0	32772	1868	1408	S	0.0	0.1	0:00.05	dbus-daemon
522	root	20	0	24248	1716	1400	S	0.0	0.1	0:00.02	systemd-logind
531	root	20	0	126236	1640	1012	S	0.0	0.1	0:00.27	crond
1113	root	20	0	116604	1068	788	R	24.8	0.1	2:04.57	sha1sum
1114	root	20	0	116604	1068	788	R	25.2	0.1	2:04.59	sha1sum
1116	root	20	0	116604	1068	788	R	25.2	0.1	2:04.58	sha1sum
1115	root	20	0	116604	1064	788	R	24.5	0.1	2:04.57	sha1sum
487	root	16	-4	55452	896	488	S	0.0	0.0	0:00.00	auditd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.40	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.01	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns

top - 18:37:55 up 29 min, 1 user, load average: 4.00, 3.36, 1.78
 Tasks: 83 total, 6 running, 77 sleeping, 0 stopped, 0 zombie
 %Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1114	root	20	0	116604	1068	788	R	25.3	0.1	2:15.47	sha1sum
1116	root	20	0	116604	1068	788	R	25.3	0.1	2:15.47	sha1sum
1113	root	20	0	116604	1068	788	R	25.0	0.1	2:15.46	sha1sum
1115	root	20	0	116604	1064	788	R	25.0	0.1	2:15.46	sha1sum
1	root	20	0	128164	6808	4044	S	0.0	0.4	0:00.92	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.40	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotl0
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	deferwq
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kaudit0
233	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ata_sff
240	root	20	0	0	0	0	S	0.0	0.0	0:00.01	scsi_eh_0

```

top - 18:41:59 up 33 min, 1 user, load average: 4.00, 3.72, 2.29
Tasks: 83 total, 5 running, 78 sleeping, 0 stopped, 0 zombie
%Cpu(s): 100.0 us, 0.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
PID to renice [default pid = 1113]

```

PID	USER	PR	NI	VIRT	RES	SHR	S %CPU	%MEM	TIME+ COMMAND
1113	root	20	0	116684	1068	788	R 25.0	0.1	3:16.41 sha1sum
1115	root	20	0	116684	1064	788	R 25.0	0.1	3:16.41 sha1sum
1116	root	20	0	116684	1068	788	R 25.0	0.1	3:16.41 sha1sum
1114	root	20	0	116684	1068	788	R 26.0	0.1	3:16.40 sha1sum
1	root	20	0	128164	6808	4044	S 0.0	0.4	0:00.92 systemd
2	root	20	0	0	0	0	S 0.0	0.0	0:00.00 kthread
3	root	20	0	0	0	0	S 0.0	0.0	0:00.03 ksftirqd/0
5	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 kworker/0:0H
7	root	rt	0	0	0	0	S 0.0	0.0	0:00.00 migration/0
8	root	20	0	0	0	0	S 0.0	0.0	0:00.00 rcu_bh
9	root	20	0	0	0	0	S 0.0	0.0	0:00.40 rcu_sched
10	root	rt	0	0	0	0	S 0.0	0.0	0:00.01 watchdog/0
12	root	20	0	0	0	0	S 0.0	0.0	0:00.00 kdevtmpfs
13	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 netns
14	root	20	0	0	0	0	S 0.0	0.0	0:00.00 khungtaskd
15	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 writeback
16	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 kintegrityd
17	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 bioset
18	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 kblockd
19	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 md
25	root	20	0	0	0	0	S 0.0	0.0	0:00.00 kswapd0
26	root	25	5	0	0	0	S 0.0	0.0	0:00.00 ksmd
27	root	39	19	0	0	0	S 0.0	0.0	0:00.01 khugepaged
28	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 crypto
36	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 kthrotld
38	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 kmpath_rdacd
39	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 kpsmoused
40	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 ipv6_addrconf
60	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 deferwq
92	root	20	0	0	0	0	S 0.0	0.0	0:00.00 kaudited
233	root	0	-20	0	0	0	S 0.0	0.0	0:00.00 ata_sff
240	root	20	0	0	0	0	S 0.0	0.0	0:00.01 scsi_eh_0

top - 18:41:59 up 33 min, 1 user, load average: 4.88, 3.72, 2.23								
Tasks: 83 total, 5 running, 78 sleeping, 0 stopped, 0 zombie								
%Cpu(s): 100.0 us, 0.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st								
PID	USER	PR	NI	UPTIME	RES	SIR	SACPU	%MEM
						TIME	CMD	
1113	root	20	0	116684	1868	708 R	25.0	0.1
1115	root	20	0	116684	1864	708 R	25.0	0.1
1116	root	20	0	116684	1868	708 R	25.0	0.1
1114	root	20	0	116684	1868	708 R	26.0	0.1
1	root	20	0	128164	6888	4044 S	0.0	0.4
2	root	20	0	0	0	0 S	0.0	0.0
3	root	20	0	0	0	0 S	0.0	0.0
5	root	0	-20	0	0	0 S	0.0	0.0
7	root	rt	0	0	0	0 S	0.0	0.0
8	root	20	0	0	0	0 S	0.0	0.0
9	root	20	0	0	0	0 S	0.0	0.0
10	root	rt	0	0	0	0 S	0.0	0.0
12	root	20	0	0	0	0 S	0.0	0.0
13	root	0	-20	0	0	0 S	0.0	0.0
14	root	20	0	0	0	0 S	0.0	0.0
15	root	0	-20	0	0	0 S	0.0	0.0
16	root	0	-20	0	0	0 S	0.0	0.0
17	root	0	-20	0	0	0 S	0.0	0.0
18	root	0	-20	0	0	0 S	0.0	0.0
19	root	0	-20	0	0	0 S	0.0	0.0
25	root	20	0	0	0	0 S	0.0	0.0
26	root	25	5	0	0	0 S	0.0	0.0
27	root	39	19	0	0	0 S	0.0	0.0
28	root	0	-20	0	0	0 S	0.0	0.0
36	root	0	-20	0	0	0 S	0.0	0.0
38	root	0	-20	0	0	0 S	0.0	0.0
39	root	0	-20	0	0	0 S	0.0	0.0
40	root	0	-20	0	0	0 S	0.0	0.0
60	root	0	-20	0	0	0 S	0.0	0.0
92	root	20	0	0	0	0 S	0.0	0.0
233	root	0	-20	0	0	0 S	0.0	0.0
240	root	20	0	0	0	0 S	0.0	0.0

```

top - 18:44:30 up 36 min, 1 user, load average: 4.06, 3.88, 2.57
Tasks: 83 total, 6 running, 77 sleeping, 0 stopped, 0 zombie
%Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
PID to renice [default pid = 1]

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	128164	6808	4044	S	0.0	0.4	0:00.92	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.41	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	integrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	deferwq
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd
233	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ata_sff
240	root	20	0	0	0	0	S	0.0	0.0	0:00.01	scsi_eh_0
242	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	scsi_tmf_0
243	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_1
244	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	scsi_tmf_1
245	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_2

top - 18:44:30 up 36 min, 1 user, load average: 4.06, 3.88, 2.57
 Tasks: 83 total, 6 running, 77 sleeping, 0 stopped, 0 zombie
 %Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
 Renice PID 1 to value -18

PID	USER	PR	NI	UIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	128164	6000	4044	S	0.0	0.4	0:00.92	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.41	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	defersq
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd
239	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ata_sff
240	root	20	0	0	0	0	S	0.0	0.0	0:00.01	scsi_eh_0
242	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	scsi_tmf_0
243	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_1
244	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	scsi_tmf_1
245	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_2

```
top - 18:46:00 up 37 min, 1 user, load average: 4.35, 4.02, 2.74
Tasks: 83 total, 5 running, 78 sleeping, 0 stopped, 0 zombie
%Cpu(s): 94.7 us, 5.3 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	10	-10	128164	6808	4044	S	0.0	0.4	0:00.93	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.41	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	integrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	deferwq
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd
233	root	0	-20	0	0	0	S	0.0	0.0	0:00.01	scsi_eh_0
240	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_tmf_0
242	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_1
243	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_tmf_1
244	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_2
245	root	20	0	0	0	0	S	0.0	0.0	0:00.00	scsi_eh_2

```

top - 18:52:40 up 44 min, 1 user, load average: 4.16, 4.12, 3.23
Tasks: 83 total, 5 running, 78 sleeping, 0 stopped, 0 zombie
%Cpu(s): 90.0 us, 10.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1883560 total, 1636232 free, 110448 used, 136880 buff/cache
KiB Swap: 975868 total, 975868 free, 0 used. 1614836 avail Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1113	root	10	-10	116604	1068	788	R	75.7	0.1	10:21.98	sha1sum
1114	root	20	0	116604	1068	788	R	8.6	0.1	4:28.00	sha1sum
1115	root	20	0	116604	1064	788	R	8.0	0.1	4:28.00	sha1sum
1116	root	20	0	116604	1068	788	R	7.6	0.1	4:27.98	sha1sum
1	root	10	-10	128164	6808	4044	S	0.0	0.4	0:00.93	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.42	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	deferwq
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd

```

top - 19:07:47 up 59 min, 1 user, load average: 4.07, 4.09, 3.77
Tasks: 84 total, 5 running, 79 sleeping, 0 stopped, 0 zombie
%Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1883560 total, 1635292 free, 110660 used, 137208 buff/cache
KiB Swap: 975868 total, 975868 free, 0 used. 1614832 avail Mem
PID to signal/kill [default pid = 1113]

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1113	root	10	-10	116604	1068	788	R	75.5	0.1	21:47.59	sha1sum
1115	root	20	0	116604	1064	788	R	7.9	0.1	5:41.51	sha1sum
1116	root	20	0	116604	1068	788	R	7.9	0.1	5:41.52	sha1sum
1114	root	20	0	116604	1068	788	R	7.6	0.1	5:41.51	sha1sum
1	root	10	-10	128164	6808	4044	S	0.0	0.4	0:00.93	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.04	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.42	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.02	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kmpath_rdacd
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	deferwq
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kauditd

```

top - 19:08:28 up 1:00, 1 user, load average: 4.06, 4.10, 3.79
Tasks: 83 total, 4 running, 79 sleeping, 0 stopped, 0 zombie
%Cpu(s): 95.0 us, 5.0 sy, 0.0 ni, 0.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
KiB Mem : 1883560 total, 1635680 free, 110672 used, 137208 buff/cache
KiB Swap: 975868 total, 975868 free, 0 used. 1614420 avail Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1115	root	20	0	116604	1064	788	R	33.6	0.1	5:47.90	shalsum
1114	root	20	0	116604	1068	788	R	33.2	0.1	5:47.89	shalsum
1116	root	20	0	116604	1068	788	R	33.2	0.1	5:47.90	shalsum
1	root	10	-10	128164	6808	4044	S	0.0	0.4	0:00.93	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.04	ksoftirqd/0
5	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kworker/0:0H
7	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
8	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_bh
9	root	20	0	0	0	0	S	0.0	0.0	0:00.42	rcu_sched
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.02	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
13	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	netns
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
15	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	writeback
16	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kintegrityd
17	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	bioset
18	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kblockd
19	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	md
25	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kswapd0
26	root	25	5	0	0	0	S	0.0	0.0	0:00.00	ksmd
27	root	39	19	0	0	0	S	0.0	0.0	0:00.01	khugepaged
28	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	crypto
36	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kthrotld
38	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kpsmoused
39	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	ipv6_addrconf
40	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	deferwq
60	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	kauditd
92	root	20	0	0	0	0	S	0.0	0.0	0:00.00	ata_sff
233	root	0	-20	0	0	0	S	0.0	0.0	0:00.00	

```
postfix 1014 0.0 0.2 89716 4012 ? S 20:35 0:00 qmgr -l -t unix -u
root 1072 0.1 0.1 115388 2020 ttys1 S 20:35 0:00 -bash
root 1095 0.0 0.0 151064 1796 ttys1 R+ 20:36 0:00 ps aux
[root@localhost ~]# jobs
[1] 1096 postfix
[root@localhost ~]# sleep 2000 &
[2] 1099
[root@localhost ~]# sleep 20293 &
[3] 1100
[root@localhost ~]# jobs
[1]  Running sleep 1000 &
[2]- Running sleep 2000 &
[3]+ Running sleep 20293 &
[root@localhost ~]# fg %1
sleep 1000
^C
[root@localhost ~]# jobs
[2]- Running sleep 2000 &
[3]+ Running sleep 20293 &
[root@localhost ~]# bg %1
-bash: bg: %1: no such job
[root@localhost ~]# kill -SIGTERM %3
[root@localhost ~]# jobs
[2]- Running sleep 2000 &
[3]+ Terminated sleep 20293
[root@localhost ~]# fg%1
-bash: fg%1: command not found
[root@localhost ~]# fg %1
-bash: fg: %1: no such job
[root@localhost ~]# kill -SIGSTOP %2
[root@localhost ~]# jobs
[2]+ Stopped sleep 2000
[root@localhost ~]# kill -SIGCONT %2
[root@localhost ~]# jobs
[root@localhost ~]# sleep 2000 &
[2]+ Running sleep 2000 &
[root@localhost ~]# kill -SIGKILL %2
```

```
[root@localhost ~]# jobs
[root@localhost ~]# sleep 1000 &
[1] 1096 Running                 sleep 1000 &
[root@localhost ~]# sleep 2000 &
[2] 1099 Running                 sleep 2000 &
[root@localhost ~]# sleep 28293 &
[3] 1100 Running                 sleep 28293 &
[root@localhost ~]# fg %1
sleep 1000
^C
[root@localhost ~]# jobs
[2]-  Running                 sleep 28000 &
[3]+  Running                 sleep 28293 &
[root@localhost ~]# bg %1
-bash: bg: %1: no such job
[root@localhost ~]# kill -SIGTERM %3
sleep 28000 &
[2]-  Running                 sleep 28293 &
[3]+  Terminated              sleep 28293
[root@localhost ~]# fg%1
-bash: fg%1: command not found
[root@localhost ~]# fg %1
-bash: fg: %1: no such job
[root@localhost ~]# kill -SIGSTOP %2
[root@localhost ~]# jobs
sleep 2000
[2]+  Stopped                 kill -SIGCONT %2
[root@localhost ~]# kill -SIGKILL %2
[root@localhost ~]# sleep 2000 &
[2]+  Running                 kill -SIGKILL %2
[root@localhost ~]# jobs
sleep 2000
[2]+  Killed                  sleep 2000
[root@localhost ~]#
```

```
25 root    20  0    0    0    0 S  0.0  0.0  0:00.00 md
26 root    25  5    0    0    0 S  0.0  0.0  0:00.00 kswapd0
27 root    39 19    0    0    0 S  0.0  0.0  0:00.01 khugepaged
28 root    0 -20   0    0    0 S  0.0  0.0  0:00.01 crypto
36 root    0 -20   0    0    0 S  0.0  0.0  0:00.00 kthrotld
38 root    0 -20   0    0    0 S  0.0  0.0  0:00.00 kmpath_rdacd
39 root    0 -20   0    0    0 S  0.0  0.0  0:00.00 kpsmoused
40 root    0 -20   0    0    0 S  0.0  0.0  0:00.00 ipv6_addrconf
60 root    0 -20   0    0    0 S  0.0  0.0  0:00.00 deferwq
92 root    20  0    0    0    0 S  0.0  0.0  0:00.00 kauditd
233 root   0 -20   0    0    0 S  0.0  0.0  0:00.00 ata_sff
[1] Terminated          sha1sum /dev/zero
[root@localhost ~]# ls /home/consultants
kashish  ppp
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint  kashish
[root@localhost ~]# mkdir temp
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint  kashish  temp
[root@localhost ~]# rm kashish
rm: remove regular empty file 'kashish'? y
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint  temp
[root@localhost ~]# ls /home/consultants
kashish  ppp
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint  temp
[root@localhost ~]# ls temp
[root@localhost ~]# cp /home/consultants/kashish temp
[root@localhost ~]# ls temp
kashish
[root@localhost ~]#
```

```
cat: fil: No such file or directory
[root@localhost temp]# touch fil
[root@localhost temp]# ls
fil
[root@localhost temp]# cat fil
[root@localhost temp]# rm fil
rm: remove regular empty file 'fil'? y
[root@localhost temp]# touch file2
[root@localhost temp]# ls
file2
[root@localhost temp]# rm file2
rm: remove regular empty file 'file2'? y
[root@localhost temp]# cd ..
[root@localhost ~]# touch file2
[root@localhost ~]# mv file2 temp/
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint  temp
[root@localhost ~]# cd temp
[root@localhost temp]# ls
file2
[root@localhost temp]# head -n1 /etc/passwd
root:x:0:0:root:/root:/bin/bash
[root@localhost temp]# tail -n1 /etc/passwd
sales2:x:1004:1006::/home/sales2::sbin/nologin
[root@localhost temp]# lx
-bash: lx: command not found
[root@localhost temp]# ls
file2
[root@localhost temp]# cd ..
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint  temp
[root@localhost ~]# rmdir temp
rmdir: failed to remove 'temp': Directory not empty
[root@localhost ~]# rm -rf temp
[root@localhost ~]# ls
anaconda-ks.cfg  datamountpoint
[root@localhost ~]# _
```

```
"userlist" [New] 11L, 62C written
[root@localhost ~]# ./script.sh
-bash: ./script.sh: Permission denied
[root@localhost ~]# chmod u+x script.sh
[root@localhost ~]# ./script.sh
Invalid Argument
[root@localhost ~]#
```

Integration in the current video mode. You need to capture the mouse (by clicking over the

```
#!/bin/bash
if [ $# == 0 ]; then
echo "Invalid Argument"
elif [ $1 == userlist ]; then
for i in `cat /root/userlist`
do
useradd -s /bin/false "$i"
done
else
echo "Invalid output file"
fi
```

"script.sh" 11L, 186C

```
kashish  
akarsh  
rakshita  
chive  
sim  
kshitij  
ram  
tomy  
riya  
tani
```

```
"userlist" 11L, 62C
```



```
"script.sh" 11L, 187C written
[root@localhost ~]# ./script.sh userlist
[root@localhost ~]# script.sh
-bash: script.sh: command not found
[root@localhost ~]# ./script.sh
Invalid Argument
[root@localhost ~]# ./script.sh userlist
useradd: user 'kashish' already exists
useradd: user 'akarsh' already exists
useradd: user 'rakshita' already exists
useradd: user 'shiva' already exists
useradd: user 'sim' already exists
useradd: user 'kshitij' already exists
useradd: user 'ram' already exists
useradd: user 'tomm' already exists
useradd: user 'riya' already exists
useradd: user 'tani' already exists
[root@localhost ~]# _
```

```
Enter filename where to create backup
userlist
[root@localhost ~]# cat -n userlist
 1 root:x:0:0:root:/root:/bin/bash
 2 bin:x:1:1:bin:/bin:/sbin/nologin
 3 daemon:x:2:2:daemon:/sbin:/sbin/nologin
 4 adm:x:3:4:adm:/var/adm:/sbin/nologin
 5 lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
 6 sync:x:5:8:sync:/sbin:/bin/sync
 7 shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
 8 halt:x:7:0:halt:/sbin:/sbin/halt
 9 mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
10 operator:x:11:0:operator:/root:/sbin/nologin
11 games:x:12:100:games:/usr/games:/sbin/nologin
12 ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
13 nobody:x:99:99:Nobody:/:/sbin/nologin
14 systemd-network:x:192:192:systemd Network Management:/:/sbin/nologin
15 dbus:x:81:81:System message bus:/:/sbin/nologin
16 polkitd:x:999:997:User for polkitd:/:/sbin/nologin
17 postfix:x:89:89::/var/spool/postfix:/sbin/nologin
18 sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
19 a1:x:1000:1001::/home/a1:/bin/bash
20 b1:x:1001:1002::/home/b1:/bin/bash
21 simran:x:1002:1003::/home/simran:/bin/bash
22 sales1:x:2000:1005:Sales:/home/sales1:/sbin/nologin
23 sales2:x:1004:1006::/home/sales2:/sbin/nologin
24 kashish:x:2001:2001::/home/kashish:/bin/false
25 akarsh:x:2002:2002::/home/akarsh:/bin/false
26 rakshita:x:2003:2003::/home/rakshita:/bin/false
27 shiva:x:2004:2004::/home/shiva:/bin/false
28 sim:x:2005:2005::/home/sim:/bin/false
29 kshitij:x:2006:2006::/home/kshitij:/bin/false
30 ram:x:2007:2007::/home/ram:/bin/false
31 tomm:x:2008:2008::/home/tomm:/bin/false
32 riya:x:2009:2009::/home/riya:/bin/false
33 tanii:x:2010:2010::/home/tanii:/bin/false
[root@localhost ~]# _
```

```
#!/bin/bash
echo Enter filename where to create backup
read file
if [ -f $file ]; then
cat /etc/passwd > "$file"
else
tail -n5 /etc/passwd >> "$file"
fi
```

8,1

all

"backup.sh" 8L, 153C

```
Number 65
Number 66
Number 67
Number 68
Number 69
Number 70
Number 71
Number 72
Number 73
Number 74
Number 75
Number 76
Number 77
Number 78
Number 79
Number 80
Number 81
Number 82
Number 83
Number 84
Number 85
Number 86
Number 87
Number 88
Number 89
Number 90
Number 91
Number 92
Number 93
Number 94
Number 95
Number 96
Number 97
Number 98
Number 99
Number 100
[root@localhost ~]#
```

```
#!/bin/bash
for i in {1..100};
do
echo "Number $i"
done
```

"printnumber.sh" 5L, 56C

5,1

All

```
29 is an odd number
31 is an odd number
33 is an odd number
35 is an odd number
37 is an odd number
39 is an odd number
41 is an odd number
43 is an odd number
45 is an odd number
47 is an odd number
49 is an odd number
51 is an odd number
53 is an odd number
55 is an odd number
57 is an odd number
59 is an odd number
61 is an odd number
63 is an odd number
65 is an odd number
67 is an odd number
69 is an odd number
71 is an odd number
73 is an odd number
75 is an odd number
77 is an odd number
79 is an odd number
81 is an odd number
83 is an odd number
85 is an odd number
87 is an odd number
89 is an odd number
91 is an odd number
93 is an odd number
95 is an odd number
97 is an odd number
99 is an odd number
[root@localhost ~]#
```

```
#!/bin/bash
for i in {1..100};
do
if (( $i%2 != 0));
then
echo "$i is an odd number"
fi
done
```

4,1

all

"oddnumber.sh" 8L, 93C

```
"fileexist.sh" 8L, 173C written
[root@localhost ~]# ./fileexist.sh
Enter file name
userlist
The file userlist exist
[root@localhost ~]#
```

```
#!/bin/bash
echo "Enter file name"
read filename
if [ -f $filename ]; then
echo "The file $filename exist"
else
echo "$filename file does not exist in current directory"
fi
```

"fileexist.sh" BL, 173C

4.1

All

```
"checknumber.sh" 15L, 280C written
[root@localhost ~]# ./checknumber.sh
Enter the number10
number is equal to 10
[root@localhost ~]#
```

```
#!/bin/bash
echo -n "Enter the number"
read number
if [ $number -gt 10 ]
then
echo "number is greater than 10"
elif [ $number -lt 10 ]
then
echo "number is less than 10"
elif [ $number -eq 10 ]
then
echo "number is equal to 10"
else
echo "Oops u have not entered a number"
fi
```

"checknumber.sh" 15L, 280C