

Questions

- How to check the present working directory of a user ?

pwd

```
ubuntu $ pwd
/root/animals/eat/herbs
ubuntu $
```

- How to check who is currently logged in ?

whoami

```
suyash@ubuntu:/root/animals/eat/herbs$ whoami
suyash
```

- How to check the CPU information of a linux machine ?

lscpu

```
suyash@ubuntu:/root/animals/eat/herbs$ lscpu
Architecture:            x86_64
CPU op-mode(s):          32-bit, 64-bit
Byte Order:               Little Endian
Address sizes:            46 bits physical, 48 bits virtual
CPU(s):                   1
On-line CPU(s) list:     0
Thread(s) per core:      1
Core(s) per socket:      1
Socket(s):                1
NUMA node(s):            1
Vendor ID:                GenuineIntel
CPU family:               6
Model:                   42
Model name:               Intel Xeon E312xx (Sandy Bridge, IBRS update)
Stepping:                 1
CPU MHz:                  2200.158
BogoMIPS:                 4400.31
Hypervisor vendor:       KVM
Virtualization type:     full
```

- How to check the disk utilisation of a linux machine ?

df -h

```
suyash@ubuntu:/root/animals/eat/herbs$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            975M     0  975M   0% /dev
tmpfs           199M   1.0M   198M   1% /run
/dev/vda1       20G   4.4G   15G   23% /
tmpfs           992M     0   992M   0% /dev/shm
tmpfs           5.0M     0   5.0M   0% /run/lock
tmpfs           992M     0   992M   0% /sys/fs/cgroup
/dev/loop0       64M    64M     0 100% /snap/core20/1634
/dev/loop1       68M    68M     0 100% /snap/lxd/22753
/dev/loop2       48M    48M     0 100% /snap/snapd/17336
/dev/vda15      105M   5.2M  100M    5% /boot/efi
tmpfs           199M     0   199M   0% /run/user/1001
```

- Create the following directory structure

```
animals/
├── mammals/
│   ├── carnivores/
│   │   ├── cats/
│   │   └── dogs/
│   ├── herbivores/
│   │   ├── deer/
│   │   └── elephants/
│   └── primates/
│       ├── apes/
│       └── chimpanzees/
```

```
mkdir -p animals/mammals/carnivores/cats animals/mammals/carnivores/dogs
animals/mammals/herbivores/deer animals/mammals/herbivores/elephants
animals/mammals/primates/apes/chimpanzees
```

```
ubuntu $ tree animals
animals
├── mammals
│   ├── carnivores
│   │   ├── cats
│   │   └── dogs
│   ├── herbivores
│   │   ├── deer
│   │   └── elephants
│   └── primates
│       ├── apes
│       └── chimpanzees
10 directories, 0 files
```

- Create a new user (You can use your name)

```
ubuntu $ adduser suyash
Adding user `suyash' ...
Adding new group `suyash' (1001) ...
Adding new user `suyash' (1001) with group `suyash' ...
Creating home directory `/home/suyash' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for suyash
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
ubuntu $
```

- Create a new group (cloudclan)

```
    Other []:
Is the information correct? [Y/n] y
ubuntu $ addgroup cloudclan
Adding group `cloudclan' (GID 1002) ...
done.
ubuntu $
```

```
suyash:x:1001:
cloudclan:x:1002:
ubuntu $
```

- Add the new user to new group

```
ubuntu $ usermod suyash -a -G cloudclan
ubuntu $ id suyash
uid=1001(suyash) gid=1001(suyash) groups=1001(suyash),1002(cloudclan)
ubuntu $
```

- Display the id of the new user

```
ubuntu $ usermod suyash -a -G cloudclan
ubuntu $ id suyash
uid=1001(suyash) gid=1001(suyash) groups=1001(suyash),1002(cloudclan)
ubuntu $
```

- How to check the uptime of a linux machine ?

uptime

top (mentions the uptime)

```
top - 12:26:35 up 52 min,  0 users,  load average: 0.06, 0.07, 0.08
Tasks: 124 total,   1 running, 123 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.0 us,  1.3 sy,  5.0 ni, 93.7 id,   0.0 wa,   0.0 hi,   0.0 si,   0.0 st
MiB Mem : 1983.3 total,  137.6 free,  384.8 used, 1461.0 buff/cache
MiB Swap: 1024.0 total, 1023.2 free,   0.8 used. 1407.0 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
22594	root	39	19	849960	69076	30044	S	0.3	3.4	0:08.28	node
1	root	20	0	169492	12724	8216	S	0.0	0.6	0:13.33	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp

- Display the list of all users

getent passwd

cat /etc/passwd

```
ubuntu $ sudo cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
```

- Display the list of all groups

cat /etc/group

getent group

- What is the UID of root ?

```
ubuntu $ id root
uid=0(root) gid=0(root) groups=0(root)
ubuntu $
```

- Add all output of history command to a new file 'history.txt'

```
ubuntu $ ls
ubuntu $ history > history.txt
ubuntu $ ls
history.txt
ubuntu $ cat history.txt
    1  apt-get update
    2  halt
    3  df -h
    4  lscpu
    5  history
    6  clear
    7  df -h
```

- How to check the load average of a linux machine ?
top
uptime
It returns load average