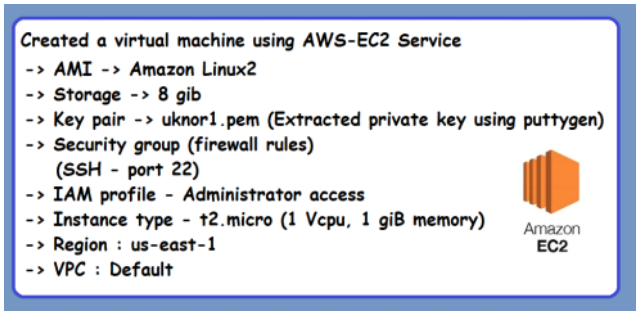
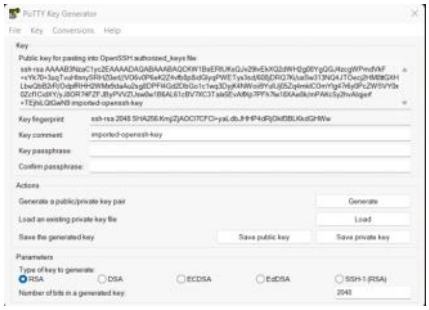
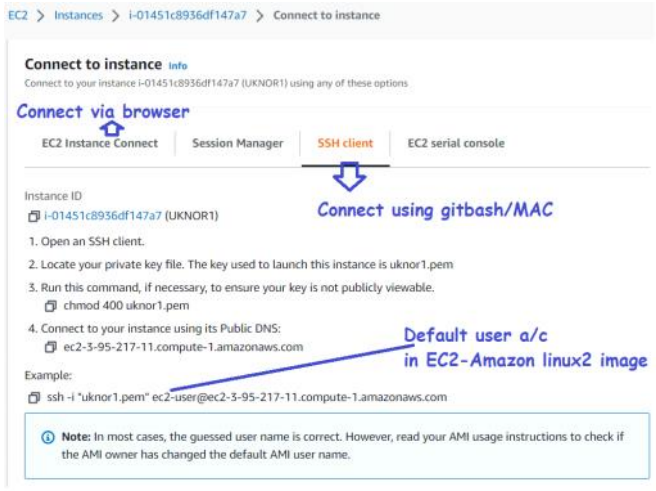
Linux Recap - 29112022

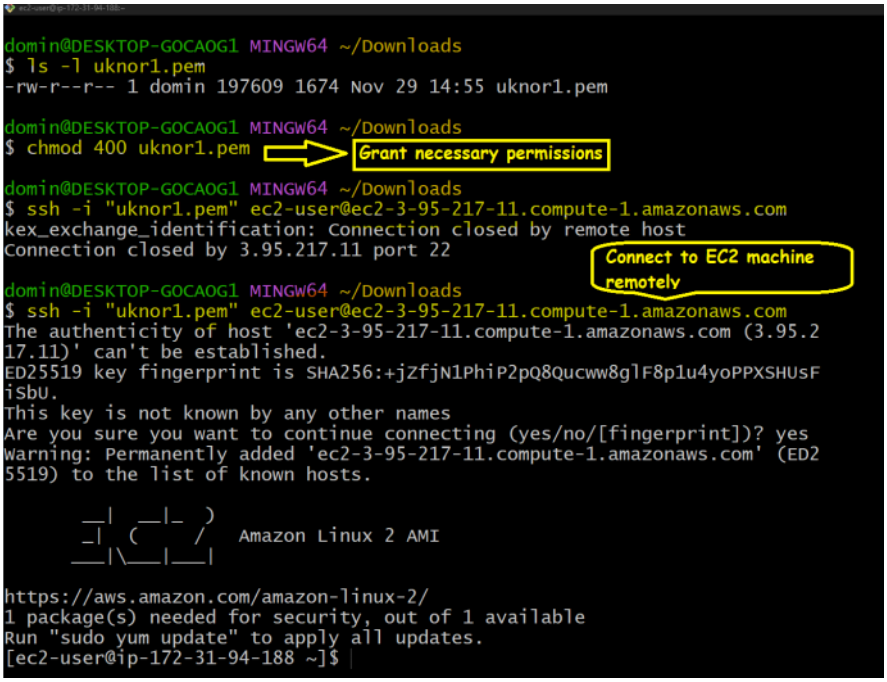
29 November 2022 15:11



PUTTYGEN to extract the private key from PEM file







```
[ec2-user@ip-172-31-94-188 ~]$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
No packages marked for update
[ec2-user@ip-172-31-94-188 ~]$
```

Get the current working directory

```
[ec2-user@ip-172-31-94-188 ~]$ pwd
/home/ec2-user
```

Create a directory

```
[ec2-user@ip-172-31-94-188 ~]$ mkdir uknor1 uknor2
```

```
[ec2-user@ip-172-31-94-188 ~]$ ls -l
total 0
drwxrwxr-x 2 ec2-user ec2-user 6 Nov 29 10:08 uknor1
drwxrwxr-x 2 ec2-user ec2-user 6 Nov 29 10:08 uknor2
[ec2-user@ip-172-31-94-188 ~]$
```

Remove a directory

```
[ec2-user@ip-172-31-94-188 ~]$ rmdir uknor2
[ec2-user@ip-172-31-94-188 ~]$ rm uknor1
rm: cannot remove ‘uknor1’: Is a directory
[ec2-user@ip-172-31-94-188 ~]$
```

Change directory

```
[ec2-user@ip-172-31-94-188 ~]$ cd uknor1
[ec2-user@ip-172-31-94-188 uknor1]$ pwd
/home/ec2-user/uknor1
[ec2-user@ip-172-31-94-188 uknor1]$ touch file1.txt file2.txt file3.txt
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file2.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
[ec2-user@ip-172-31-94-188 uknor1]$
```

Create empty files using touch command

Rename a file using mv command

```
[ec2-user@ip-172-31-94-188 uknor1]$ mv file1.txt file1_new.txt
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1_new.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file2.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
[ec2-user@ip-172-31-94-188 uknor1]$
```

rm command -> To remove a file
Cp command -> To copy a file

```
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1_new.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file2.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
[ec2-user@ip-172-31-94-188 uknor1]$ rm file2.txt
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1_new.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
[ec2-user@ip-172-31-94-188 uknor1]$ cp file3.txt file3_backup.txt
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1_new.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:22 file3_backup.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ touch file1 file2 file3 sample1 sample2 sample3 test1 test2 test3
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 file1
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1_new.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 file2
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 file3
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:22 file3_backup.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 sample1
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 sample2
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 sample3
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 test1
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 test2
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 test3
[ec2-user@ip-172-31-94-188 uknor1]$
```

Get the files which begins with 'sam'

```
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l sam*
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 sample1
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 sample2
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:25 sample3
[ec2-user@ip-172-31-94-188 uknor1]$
```

Get all the text files

```
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l *.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file1_new.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:22 file3_backup.txt
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 10:16 file3.txt
```

Get the list of user accounts rendered on the screen
and redirect the output to a file at the same time

Solution:
-> Retrieve the list of user accounts (cat /etc/passwd)
-> Redirect the content to a file (Output Redirection)
-> Display the content on the screen (Output Redirection)

```
[ec2-user@ip-172-31-94-188 uknor1]$ tail /etc/passwd
libstoragemgmt:x:999:997:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
nfsnobody:x:65534:65534:Anonymous NFS User:/var/lib/nfs:/sbin/nologin
rngd:x:998:996:Random Number Generator Daemon:/var/lib/rngd:/sbin/nologin
ec2-instance-connect:x:997:995::/home/ec2-instance-connect:/sbin/nologin
postfix:x:89:89::/var/spool/postfix:/sbin/nologin
chrony:x:996:994::/var/lib/chrony:/sbin/nologin
tcpdump:x:72:72::/:/sbin/nologin
ec2-user:x:1000:1000:EC2 Default User:/home/ec2-user:/bin/bash
[ec2-user@ip-172-31-94-188 uknor1]$ tail /etc/passwd > accounts.log
[ec2-user@ip-172-31-94-188 uknor1]$ tail /etc/passwd |sudo tee accounts.log
libstoragemgmt:x:999:997:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
nfsnobody:x:65534:65534:Anonymous NFS User:/var/lib/nfs:/sbin/nologin
rngd:x:998:996:Random Number Generator Daemon:/var/lib/rngd:/sbin/nologin
ec2-instance-connect:x:997:995::/home/ec2-instance-connect:/sbin/nologin
postfix:x:89:89::/var/spool/postfix:/sbin/nologin
chrony:x:996:994::/var/lib/chrony:/sbin/nologin
tcpdump:x:72:72::/:/sbin/nologin
ec2-user:x:1000:1000:EC2 Default User:/home/ec2-user:/bin/bash
[ec2-user@ip-172-31-94-188 uknor1]$
```

Just redirect the output to a file

tee command
-> Redirect
-> Display at the same time

GREP -> Globally search for regular expressions:

```
[ec2-user@ip-172-31-94-188 uknor1]$ nano accounts.log
[ec2-user@ip-172-31-94-188 uknor1]$ grep ec2-user accounts.log
ec2-user:x:1000:1000:EC2 Default User:/home/ec2-user:/bin/bash
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l | grep sample1 | sudo tee grep_output.txt
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample1
[ec2-user@ip-172-31-94-188 uknor1]$ ls -l
total 8
-rw-rw-r-- 1 ec2-user ec2-user 624 Nov 29 10:35 accounts.log
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 file1
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 file2
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 file3
-rw-r--r-- 1 root     root      56 Nov 29 11:08 grep_output.txt
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample1
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample2
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample3
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 test1
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 test2
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 test3
[ec2-user@ip-172-31-94-188 uknor1]$ cat grep_output.txt
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample1
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ date
Tue Nov 29 11:11:26 UTC 2022
[ec2-user@ip-172-31-94-188 uknor1]$ cal
    November 2022
Su Mo Tu We Th Fr Sa
       1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30

[ec2-user@ip-172-31-94-188 uknor1]$
[ec2-user@ip-172-31-94-188 uknor1]$ whoami
ec2-user
[ec2-user@ip-172-31-94-188 uknor1]$ who
ec2-user pts/0        2022-11-29 09:48 (182.65.181.105)
[ec2-user@ip-172-31-94-188 uknor1]$
```

Apply sort prior to uniq command to remove the duplicates

```
[ec2-user@ip-172-31-94-188 uknor1]$ nano test.txt
[ec2-user@ip-172-31-94-188 uknor1]$ sort test.txt | uniq
a
b
c
m
s
t
[ec2-user@ip-172-31-94-188 uknor1]$ cat test.txt
b
a
c
b
t
m
a
b
c
s
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ python3 --version
Python 3.7.10
[ec2-user@ip-172-31-94-188 uknor1]$ aws --version
aws-cli/1.18.147 Python/2.7.18 Linux/5.10.147-133.644.amzn2.x86_64 botocore/1.18.6
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: inactive (dead)
     Docs: man:httpd.service(8)
[ec2-user@ip-172-31-94-188 uknor1]$ sudo systemctl start httpd
[ec2-user@ip-172-31-94-188 uknor1]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)
   Active: active (running) since Tue 2022-11-29 11:25:59 UTC; 4s ago
     Docs: man:httpd.service(8)
 Main PID: 3360 (httpd)
   Status: "Processing requests..."
   CGroup: /system.slice/httpd.service
           ├─3360 /usr/sbin/httpd -DFOREGROUND
           ├─3361 /usr/sbin/httpd -DFOREGROUND
           ├─3362 /usr/sbin/httpd -DFOREGROUND
           ├─3363 /usr/sbin/httpd -DFOREGROUND
           ├─3364 /usr/sbin/httpd -DFOREGROUND
           └─3365 /usr/sbin/httpd -DFOREGROUND

Nov 29 11:25:59 ip-172-31-94-188.ec2.internal systemd[1]: Starting The Apache HTTP Server...
Nov 29 11:25:59 ip-172-31-94-188.ec2.internal systemd[1]: Started The Apache HTTP Server.
[ec2-user@ip-172-31-94-188 uknor1]$ sudo systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
```

START THE SERVICE - HTTPD
[Apache web server]

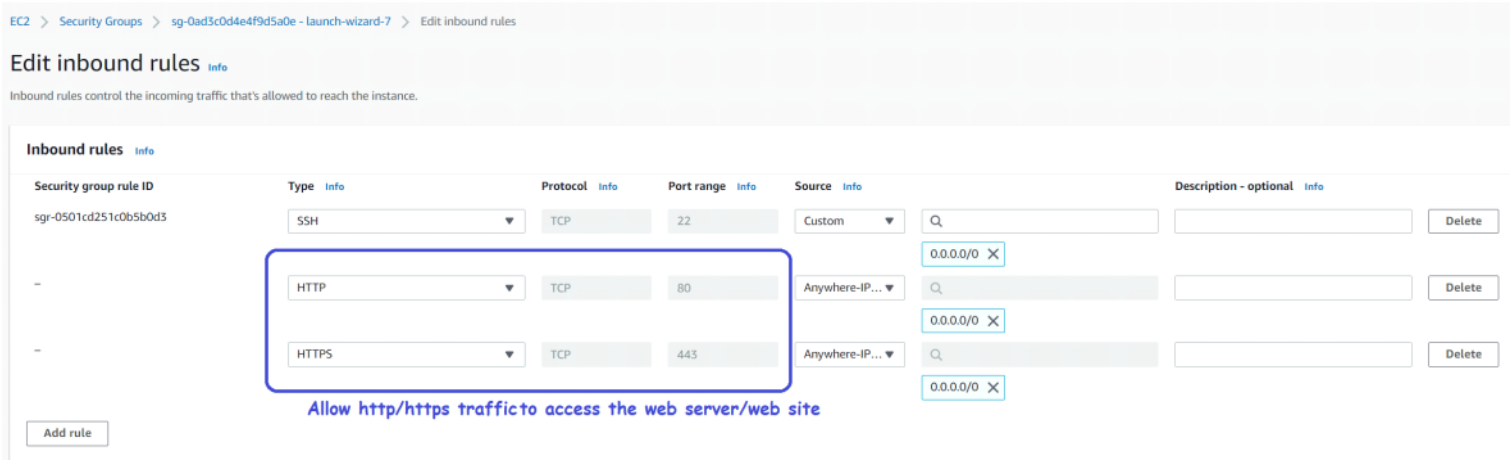
Real-time view of the system - Performance metrics

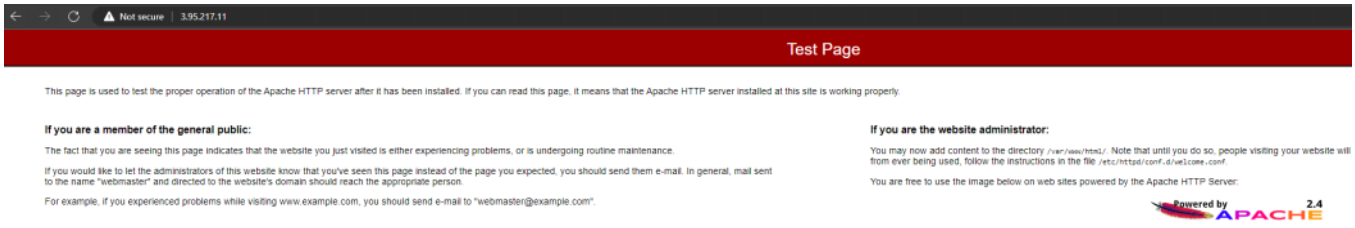
```
top - 11:32:28 up  1:59,  1 user,  load average: 0.00, 0.00, 0.00
Tasks:  99 total,   1 running,  56 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.3 us,  0.0 sy,  0.0 ni, 99.7 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :   988916 total,   227472 free,   105108 used,   656336 buff/cache
KiB Swap:        0 total,        0 free,        0 used.   735692 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
    1 root      20   0  123620   5444   3832 S  0.0  0.6   0:02.33 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
    4 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 rcu_par_gp
    6 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 kworker/0:0H-ev
    8 root       0 -20       0      0      0 I  0.0  0.0   0:00.17 kworker/0:1H-ev
    9 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 mm_percpu_wq
   10 root      20   0       0      0      0 S  0.0  0.0   0:00.00 rcu_tasks_rude_
   11 root      20   0       0      0      0 S  0.0  0.0   0:00.00 rcu_tasks_trace
   12 root      20   0       0      0      0 S  0.0  0.0   0:00.09 ksoftirqd/0
   13 root      20   0       0      0      0 I  0.0  0.0   0:00.17 rcu_sched
   14 root      rt   0       0      0      0 S  0.0  0.0   0:00.03 migration/0
   16 root      20   0       0      0      0 S  0.0  0.0   0:00.00 cpuhp/0
   18 root      20   0       0      0      0 S  0.0  0.0   0:00.00 kdevtmpfs
   19 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 netns
   20 root      20   0       0      0      0 I  0.0  0.0   0:00.07 kworker/u30:1-e
   22 root      20   0       0      0      0 S  0.0  0.0   0:00.02 kauditd
  270 root      20   0       0      0      0 S  0.0  0.0   0:00.00 khungtaskd
  271 root      20   0       0      0      0 S  0.0  0.0   0:00.00 oom_reaper
  272 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 writeback
  274 root      20   0       0      0      0 S  0.0  0.0   0:00.16 kcompactd0
  275 root      25   5       0      0      0 S  0.0  0.0   0:00.00 ksmd
  276 root      39  19       0      0      0 S  0.0  0.0   0:00.00 khugepaged
  331 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 kintegrityd
  333 root       0 -20       0      0      0 I  0.0  0.0   0:00.00 kblockd
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  420K  483M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.7G  6.3G  22% /
tmpfs            97M     0   97M   0% /run/user/1000
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
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:                 63
Model name:            Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
Stepping:              2
CPU MHz:               2400.098
BogoMIPS:              4799.99
Hypervisor vendor:     Xen
Virtualization type:   full
L1d cache:             32K
L1i cache:             32K
L2 cache:              256K
L3 cache:              30720K
NUMA node0 CPU(s):     0
Flags:                 fpu vme de pse tsc msr pae mce cx8 apic sep
nt_tsc rep_good nopl xtopology cpuid tsc_known_freq pni pclmulqdq
avx f16c rdrand hypervisor lahf_lm abm cpuid_fault invpcid_single
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 uknor1]$ vmstat
procs -----------memory---------- ---swap-- -----io---- -system-- ------cpu-----
 r  b   swpd   free   buff  cache   si   so    bi    bo   in   cs us sy id wa st
 0  0      0 227732   2068 654364    0    0    37    82   44  168  1  0 99  0  0
[ec2-user@ip-172-31-94-188 uknor1]$ free
               total        used        free      shared  buff/cache   available
Mem:         988916      104720      227732         544      656464      736080
Swap:             0           0           0
[ec2-user@ip-172-31-94-188 uknor1]$
```





Get some input from the user

```
[ec2-user@ip-172-31-94-188 uknor1]$ read a
15
[ec2-user@ip-172-31-94-188 uknor1]$ echo $a
15
[ec2-user@ip-172-31-94-188 uknor1]$ read b
20
[ec2-user@ip-172-31-94-188 uknor1]$ echo $b
20
[ec2-user@ip-172-31-94-188 uknor1]$
```

```
[ec2-user@ip-172-31-94-188 ~]$ ls -lR
.:
total 0
drwxrwxr-x 2 ec2-user ec2-user 188 Nov 29 11:14 uknor1
drwxrwxr-x 2 ec2-user ec2-user  45 Nov 29 11:58 uknor2

./uknor1:
total 12
-rw-rw-r-- 1 ec2-user ec2-user 624 Nov 29 10:35 accounts.log
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 file1
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 file2
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 file3
-rw-r--r-- 1 root     root      56 Nov 29 11:08 grep_output.txt
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample1
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample2
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 sample3
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 test1
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 test2
-rw-rw-r-- 1 ec2-user ec2-user   0 Nov 29 10:25 test3
-rw-rw-r-- 1 ec2-user ec2-user  20 Nov 29 11:18 test.txt

./uknor2:
total 0
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 11:58 file1
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 11:58 file2
-rw-rw-r-- 1 ec2-user ec2-user 0 Nov 29 11:58 file3
[ec2-user@ip-172-31-94-188 ~]$
```

Get the list of processes including parent & child/sub

```
[ec2-user@ip-172-31-94-188 ~]$ pstree
systemd─┬─acpid
        ├─2*[agetty]
        ├─amazon-ssm-agen─┬─ssm-agent-worke───7*[{ssm-agent-worke}]
        │                 └─7*[{amazon-ssm-agen}]
        ├─atd
        ├─auditd───{auditd}
        ├─chronyd
        ├─crond
        ├─dbus-daemon
        ├─2*[dhclient]
        ├─gssproxy───5*[{gssproxy}]
        ├─httpd─┬─5*[httpd───5*[{httpd}]]
        │       └─httpd───21*[{httpd}]
        ├─lsmd
        ├─lvmetad
        ├─master─┬─pickup
        │        └─qmgr
        ├─rngd
        ├─rpcbind
        ├─rsyslogd───2*[{rsyslogd}]
        ├─sshd───sshd───sshd───bash───pstree
        ├─systemd-journal
        ├─systemd-logind
        └─systemd-udevd
[ec2-user@ip-172-31-94-188 ~]$
```

Permissions:

- Created a shell script
- Granted execute permission
- Executed the shell script

```
[ec2-user@ip-172-31-94-188 ~]$ nano demo.sh
[ec2-user@ip-172-31-94-188 ~]$ cat demo.sh
cal
date
w
who
whoami
ls -l

[ec2-user@ip-172-31-94-188 ~]$ ./demo.sh
-bash: ./demo.sh: Permission denied
[ec2-user@ip-172-31-94-188 ~]$ chmod u+x demo.sh
[ec2-user@ip-172-31-94-188 ~]$ ./demo.sh
    November 2022
Su Mo Tu We Th Fr Sa
       1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30

Tue Nov 29 12:07:33 UTC 2022
 12:07:33 up  2:34,  1 user,  load average: 0.00, 0.00, 0.00
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
ec2-user pts/0    182.65.181.105   09:48    5.00s  0.18s  0.00s w
ec2-user pts/0        2022-11-29 09:48 (182.65.181.105)
ec2-user
total 4
-rwxrw-r-- 1 ec2-user ec2-user  30 Nov 29 12:06 demo.sh
drwxrwxr-x 2 ec2-user ec2-user 188 Nov 29 11:14 uknor1
drwxrwxr-x 2 ec2-user ec2-user  45 Nov 29 11:58 uknor2
[ec2-user@ip-172-31-94-188 ~]$
```

ALIAS Command

```
[ec2-user@ip-172-31-94-188 ~]$ alias alias_uknor1='ls -l | grep uknor2 |wc'
[ec2-user@ip-172-31-94-188 ~]$ alias_uknor1
      1       9      55
[ec2-user@ip-172-31-94-188 ~]$
```

```
[ec2-user@ip-172-31-94-188 ~]$ ls -l
total 4
-rwxrw-r-- 1 ec2-user ec2-user  30 Nov 29 12:06 demo.sh
drwxrwxr-x 2 ec2-user ec2-user 188 Nov 29 11:14 uknor1
drwxrwxr-x 2 ec2-user ec2-user  45 Nov 29 11:58 uknor2
[ec2-user@ip-172-31-94-188 ~]$ pwd
/home/ec2-user
[ec2-user@ip-172-31-94-188 ~]$ cd ~
[ec2-user@ip-172-31-94-188 ~]$ pwd
/home/ec2-user
[ec2-user@ip-172-31-94-188 ~]$ cd /   Change to root
[ec2-user@ip-172-31-94-188 /]$ pwd
/
[ec2-user@ip-172-31-94-188 /]$ cd ~   Change to home
[ec2-user@ip-172-31-94-188 ~]$ ls -l
total 4
-rwxrw-r-- 1 ec2-user ec2-user  30 Nov 29 12:06 demo.sh
drwxrwxr-x 2 ec2-user ec2-user 188 Nov 29 11:14 uknor1
drwxrwxr-x 2 ec2-user ec2-user  45 Nov 29 11:58 uknor2
[ec2-user@ip-172-31-94-188 ~]$ ls -al
total 16                                          Hidden files
drwx------ 5 ec2-user ec2-user 117 Nov 29 12:05 .
drwxr-xr-x 3 root     root      22 Nov 29 09:33 ..
-rw-r--r-- 1 ec2-user ec2-user  18 Jul 15  2020 .bash_logout
-rw-r--r-- 1 ec2-user ec2-user 193 Jul 15  2020 .bash_profile
-rw-r--r-- 1 ec2-user ec2-user 231 Jul 15  2020 .bashrc
-rwxrw-r-- 1 ec2-user ec2-user  30 Nov 29 12:06 demo.sh
drwx------ 2 ec2-user ec2-user  29 Nov 29 09:33 .ssh
drwxrwxr-x 2 ec2-user ec2-user 188 Nov 29 11:14 uknor1
drwxrwxr-x 2 ec2-user ec2-user  45 Nov 29 11:58 uknor2
[ec2-user@ip-172-31-94-188 ~]$
```

```
[ec2-user@ip-172-31-94-188 ~]$ hostname
ip-172-31-94-188.ec2.internal
[ec2-user@ip-172-31-94-188 ~]$
```

Commands :

```
[ec2-user@ip-172-31-94-188 ~]$ history
   1  sudo yum update
   2  clear
   3  sudo yum update
   4  clear
   5  pwd
   6  mkdir uknor1 uknor2
   7  ls -l
   8  rmdir uknor2
   9  rm uknor1
```

```
 10 cd uknor1
 11 pwd
 12 touch file1.txt file2.txt file3.txt
 13 ls -l
 14 mv file1.txt file1_new.txt
 15 ls -l
 16 clear
 17 ls -l
 18 rm file2.txt
 19 ls -l
 20 cp file3.txt file3_backup.txt
 21 ls -l
 22 touch file1 file2 file3 sample1 sample2 sample3 test1
test2 test3
 23 ls -l
 24 ls -l sam*
 25 ls -l *.txt
 26 rm *.txt
 27 ls -l
 28 pwd
 29 clear
 30 tail /etc/passwd
 31 tail /etc/passwd > accounts.log
 32 tail /etc/passwd |sudo tee accounts.log
 33 clear
 34 ls -l
 35 wc accounts.log
 36 nano accounts.log
 37 grep ec2-user accounts.log
 38 ls -l | grep sample1.txt
 39 ls -l | grep sample1
 40 ls -l | grep sample1 | sudo tee grep_output.txt
 41 ls -l
 42 cat grep_output.txt
 43 clear
 44 date
 45 cal
 46 whoami
 47 who
 48 nano numbers.txt
 49 clear
 50 cat numbers.txt
 51 clear
 52 mv numbers.txt test.txt
 53 clear
 54 cat test.txt
 55 sort test
 56 sort test.txt
 57 nano test.txt
 58 clear
 59 cat test
 60 clear
 61 cat test.txt
 62 uniq test.txt
 63 sort test.txt
 64 sort test.txt | uniq
 65 clear
 66 nano test.txt
 67 sort test.txt | uniq
 68 cat test.txt
 69 clear
 70 python3 --version
 71 aws --version
 72 clear
 73 yum install httpd
 74 sudo yum install httpd
 75 yum status httpd
 76 sudo systemctl status httpd
 77 sudo systemctl start httpd
 78 sudo systemctl status httpd
 79 sudo systemctl enable httpd
 80 clear
 81 ps
 82 ps -aux
 83 clear
 84 top
 85 clear
 86 df -h
 87 clear
 88 lscpu
 89 clear
 90 vmstat
 91 free
 92 clear
 93 ls /var/log
```

```
 94  sudo systemctl status httpd
 95  sudo yum install mysql
 96  sudo mysql
 97  clear
 98  sudo yum install mysql
 99  service start mysqld
100  clear
101  read a
102  echo $a
103  read b
104  echo $b
105  clear
106  ls -l
107  cd ..
108  ls
109  mkdir uknor2
110  touch uknor2/file1
111  touch uknor2/file2
112  touch uknor2/file3
113  clear
114  ls -l
115  ls -lR
116  clear
117  pstree
118  clear
119  pwd
120  ls -l
121  touch demo.sh
122  ls -l
123  nano demo.sh
124  cat demo.sh
125  ./demo.sh
126  chmod u+x demo.sh
127  ./demo.sh
128  clear
129  ls -l
130  ls -l | grep uk*
131  ls -l | grep uknor2
132  clear
133  ls -l | grep uknor2
134  ls -l | grep uknor2 |wc
135  alias alias_uknor1ls -l | grep uknor2 |wc
136  alias alias_uknor1=ls -l | grep uknor2 |wc
137  alias alias_uknor1='ls -l | grep uknor2 |wc'
138  alias_uknor1
139  ls -l
140  pwd
141  cd ~
142  pwd
143  cd /
144  pwd
145  cd ~
146  ls -l
147  ls -al
148  clear
149  hsotname
150  clar
151  clear
152  hostname
153  clear
154  history
```