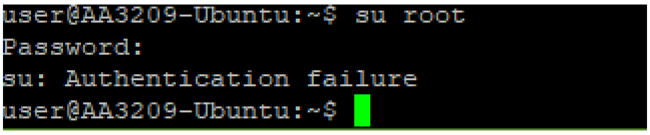
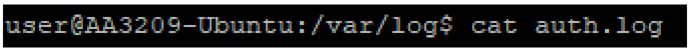
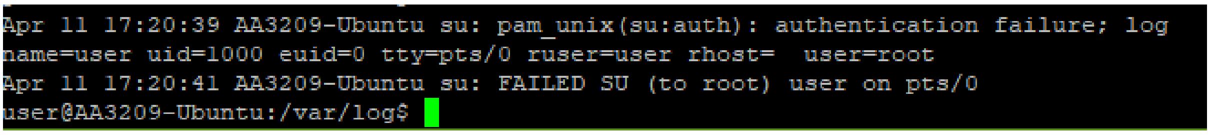
T1



```
user@AA3209-Ubuntu:~$ su root
Password:
su: Authentication failure
user@AA3209-Ubuntu:~$
```

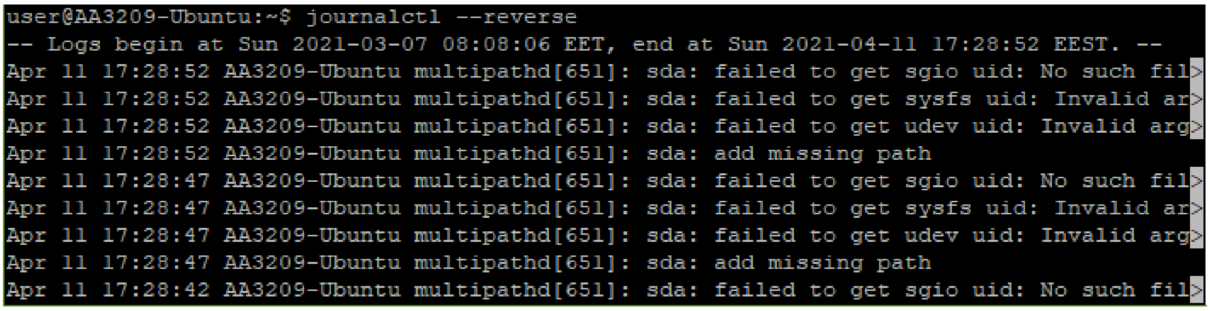


```
user@AA3209-Ubuntu:/var/log$ cat auth.log
```



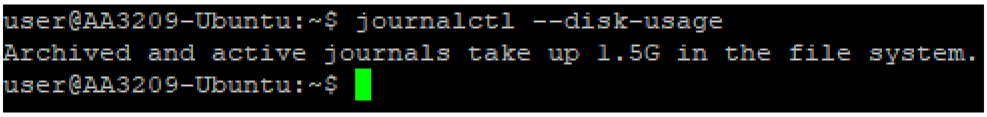
```
Apr 11 17:20:39 AA3209-Ubuntu su: pam_unix(su:auth): authentication failure; log
name=user uid=1000 euid=0 tty=pts/0 ruser=user rhost=  user=root
Apr 11 17:20:41 AA3209-Ubuntu su: FAILED SU (to root) user on pts/0
user@AA3209-Ubuntu:/var/log$
```

T2



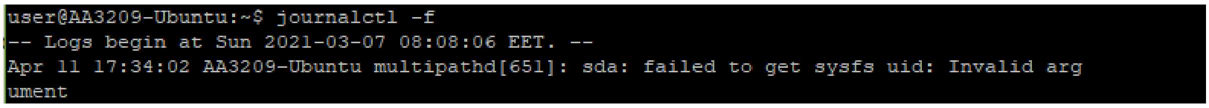
```
user@AA3209-Ubuntu:~$ journalctl --reverse
-- Logs begin at Sun 2021-03-07 08:08:06 EET, end at Sun 2021-04-11 17:28:52 EEST. --
Apr 11 17:28:52 AA3209-Ubuntu multipathd[651]: sda: failed to get sgio uid: No such fil>
Apr 11 17:28:52 AA3209-Ubuntu multipathd[651]: sda: failed to get sysfs uid: Invalid ar>
Apr 11 17:28:52 AA3209-Ubuntu multipathd[651]: sda: failed to get udev uid: Invalid arg>
Apr 11 17:28:52 AA3209-Ubuntu multipathd[651]: sda: add missing path
Apr 11 17:28:47 AA3209-Ubuntu multipathd[651]: sda: failed to get sgio uid: No such fil>
Apr 11 17:28:47 AA3209-Ubuntu multipathd[651]: sda: failed to get sysfs uid: Invalid ar>
Apr 11 17:28:47 AA3209-Ubuntu multipathd[651]: sda: failed to get udev uid: Invalid arg>
Apr 11 17:28:47 AA3209-Ubuntu multipathd[651]: sda: add missing path
Apr 11 17:28:42 AA3209-Ubuntu multipathd[651]: sda: failed to get sgio uid: No such fil>
```

T3

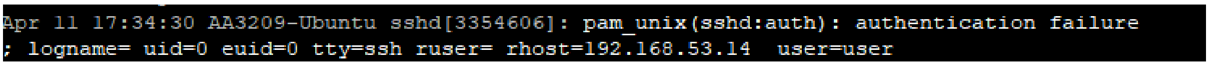


```
user@AA3209-Ubuntu:~$ journalctl --disk-usage
Archived and active journals take up 1.5G in the file system.
user@AA3209-Ubuntu:~$
```

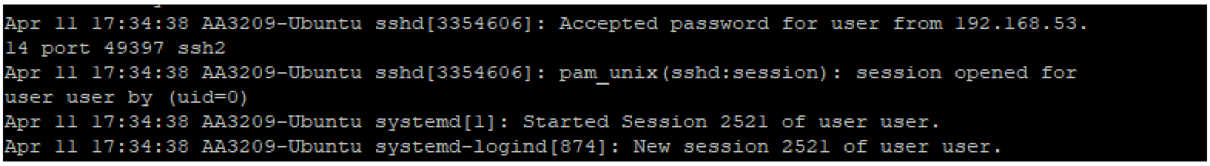
T4



```
user@AA3209-Ubuntu:~$ journalctl -f
-- Logs begin at Sun 2021-03-07 08:08:06 EET. --
Apr 11 17:34:02 AA3209-Ubuntu multipathd[651]: sda: failed to get sysfs uid: Invalid arg
ument
```

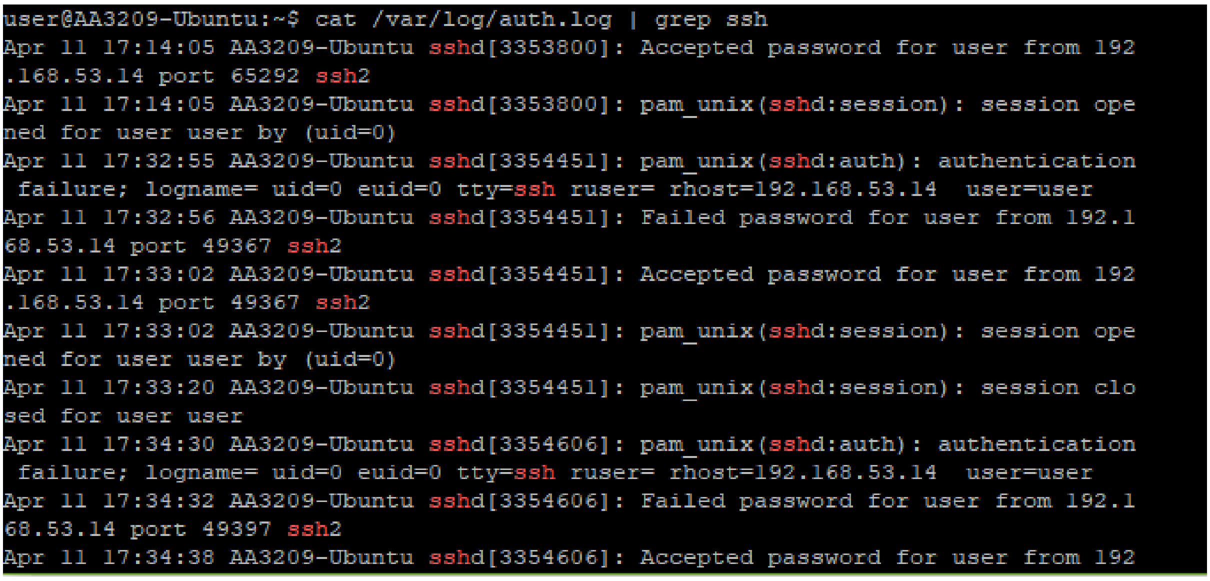


```
Apr 11 17:34:30 AA3209-Ubuntu sshd[3354606]: pam_unix(sshd:auth): authentication failure
; logname= uid=0 euid=0 tty=ssh ruser= rhost=192.168.53.14  user=user
```



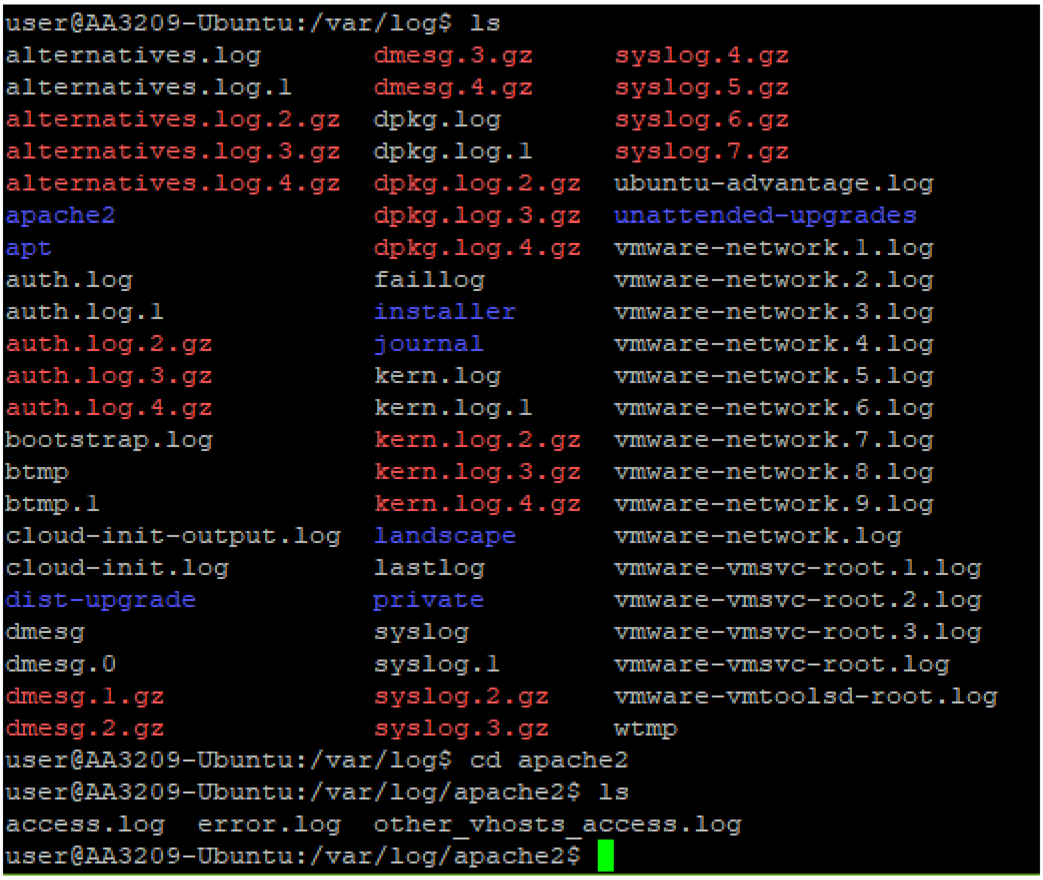
```
Apr 11 17:34:38 AA3209-Ubuntu sshd[3354606]: Accepted password for user from 192.168.53.
14 port 49397 ssh2
Apr 11 17:34:38 AA3209-Ubuntu sshd[3354606]: pam_unix(sshd:session): session opened for
user user by (uid=0)
Apr 11 17:34:38 AA3209-Ubuntu systemd[1]: Started Session 2521 of user user.
Apr 11 17:34:38 AA3209-Ubuntu systemd-logind[874]: New session 2521 of user user.
```

T5

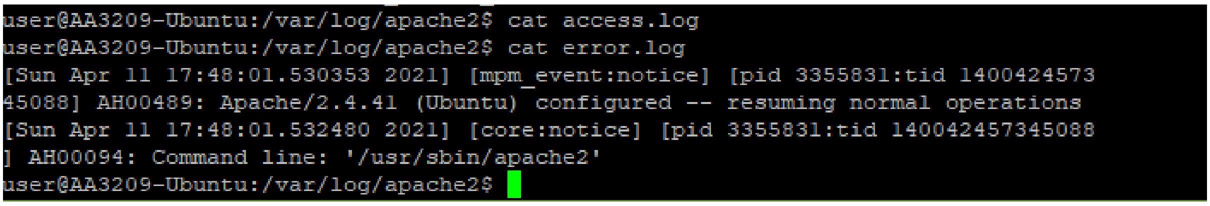


```
user@AA3209-Ubuntu:~$ cat /var/log/auth.log | grep ssh
Apr 11 17:14:05 AA3209-Ubuntu sshd[3353800]: Accepted password for user from 192
.168.53.14 port 65292 ssh2
Apr 11 17:14:05 AA3209-Ubuntu sshd[3353800]: pam_unix(sshd:session): session ope
ned for user user by (uid=0)
Apr 11 17:32:55 AA3209-Ubuntu sshd[3354451]: pam_unix(sshd:auth): authentication
 failure; logname= uid=0 euid=0 tty=ssh ruser= rhost=192.168.53.14  user=user
Apr 11 17:32:56 AA3209-Ubuntu sshd[3354451]: Failed password for user from 192.1
68.53.14 port 49367 ssh2
Apr 11 17:33:02 AA3209-Ubuntu sshd[3354451]: Accepted password for user from 192
.168.53.14 port 49367 ssh2
Apr 11 17:33:02 AA3209-Ubuntu sshd[3354451]: pam_unix(sshd:session): session ope
ned for user user by (uid=0)
Apr 11 17:33:20 AA3209-Ubuntu sshd[3354451]: pam_unix(sshd:session): session clo
sed for user user
Apr 11 17:34:30 AA3209-Ubuntu sshd[3354606]: pam_unix(sshd:auth): authentication
 failure; logname= uid=0 euid=0 tty=ssh ruser= rhost=192.168.53.14  user=user
Apr 11 17:34:32 AA3209-Ubuntu sshd[3354606]: Failed password for user from 192.1
68.53.14 port 49397 ssh2
Apr 11 17:34:38 AA3209-Ubuntu sshd[3354606]: Accepted password for user from 192
```

T6



```
user@AA3209-Ubuntu:/var/log$ ls
alternatives.log       dmesg.3.gz     syslog.4.gz
alternatives.log.1     dmesg.4.gz     syslog.5.gz
alternatives.log.2.gz  dpkg.log       syslog.6.gz
alternatives.log.3.gz  dpkg.log.1     syslog.7.gz
alternatives.log.4.gz  dpkg.log.2.gz  ubuntu-advantage.log
apache2                dpkg.log.3.gz  unattended-upgrades
apt                    dpkg.log.4.gz  vmware-network.1.log
auth.log               faillog        vmware-network.2.log
auth.log.1             installer      vmware-network.3.log
auth.log.2.gz          journal        vmware-network.4.log
auth.log.3.gz          kern.log       vmware-network.5.log
auth.log.4.gz          kern.log.1     vmware-network.6.log
bootstrap.log          kern.log.2.gz  vmware-network.7.log
btmp                   kern.log.3.gz  vmware-network.8.log
btmp.1                 kern.log.4.gz  vmware-network.9.log
cloud-init-output.log  landscape      vmware-network.log
cloud-init.log         lastlog        vmware-vmsvc-root.1.log
dist-upgrade           private        vmware-vmsvc-root.2.log
dmesg                  syslog         vmware-vmsvc-root.3.log
dmesg.0                syslog.1       vmware-vmsvc-root.log
dmesg.1.gz             syslog.2.gz    vmware-vmtoolsd-root.log
dmesg.2.gz             syslog.3.gz    wtmp
user@AA3209-Ubuntu:/var/log$ cd apache2
user@AA3209-Ubuntu:/var/log/apache2$ ls
access.log  error.log  other_vhosts_access.log
user@AA3209-Ubuntu:/var/log/apache2$
```



```
user@AA3209-Ubuntu:/var/log/apache2$ cat access.log
user@AA3209-Ubuntu:/var/log/apache2$ cat error.log
[Sun Apr 11 17:48:01.530353 2021] [mpm_event:notice] [pid 3355831:tid 1400424573
45088] AH00489: Apache/2.4.41 (Ubuntu) configured -- resuming normal operations
[Sun Apr 11 17:48:01.532480 2021] [core:notice] [pid 3355831:tid 140042457345088
] AH00094: Command line: '/usr/sbin/apache2'
user@AA3209-Ubuntu:/var/log/apache2$
```