

Milad Azizi

1.

- mkdir assignments
- touch userinfo
- vi info.sh

```

$ cd /bin/bash
$ echo "Milad"
name
who
uptime

```

- `sh info.sh`

```
Milad
info.sh: line 4: name: command not found
ec2-user pts/0          2021-02-05 17:45 (47.188.44.169)
ec2-user pts/1          2021-02-05 17:57 (47.188.44.169)
 18:08:41 up 2 days,  2:56,  2 users,  load average: 0.00, 0.00, 0.00
```

2.

- touch userinfo2
- vi info.sh
- sh info.sh

```
#!/bin/bash
uptime
id
whoami
pwd
uname -a
cp info.sh infonew1.sh
~
~
~
~
~
```

```
18:19:19 up 2 days, 3:06, 2 users, load average: 0.00, 0.00, 0.00
uid=1000(ec2-user) gid=1000(ec2-user) groups=1000(ec2-user),4(adm),10(wheel),190
(systemd-journal)
ec2-user
/home/ec2-user/assignmnets
Linux ip-172-31-48-93.ec2.internal 4.14.214-160.339.amzn2.x86_64 #1 SMP Sun Jan
10 05:53:05 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
```

3.


`sudo head -2 /var/log/messages`

`sudo tail -10 /var/log/messages`

```
Feb  5 18:12:30 ip-172-31-48-93 dhclient[2812]: XMT: Solicit on eth0, interval 11990ms.
[ec2-user@ip-172-31-48-93 assignmnets]$ sudo head -2 /var/log/messages
Feb  3 15:12:30 ip-172-31-48-93 journal: Runtime journal is using 6.1M (max allowed 49.1M)
Feb  3 15:12:30 ip-172-31-48-93 kernel: Linux version 4.14.214-160.339.amzn2.x86_64 (mock
1
[ec2-user@ip-172-31-48-93 assignmnets]$ sudo tail -10 /var/log/messages
Feb  5 18:23:38 ip-172-31-48-93 dhclient[2812]: XMT: Solicit on eth0, interval 120240ms.
Feb  5 18:23:57 ip-172-31-48-93 dhclient[2726]: DHCPREQUEST on eth0 to 172.31.48.1 port 6
Feb  5 18:23:57 ip-172-31-48-93 dhclient[2726]: DHCPACK from 172.31.48.1 (xid=0x731d4e69)
Feb  5 18:23:58 ip-172-31-48-93 dhclient[2726]: bound to 172.31.48.93 -- renewal in 1379
Feb  5 18:23:58 ip-172-31-48-93 ec2net: [get_meta] Querying IMDS for meta-data/network/in
Feb  5 18:23:58 ip-172-31-48-93 ec2net: [get_meta] Getting token for IMDSv2.
Feb  5 18:23:58 ip-172-31-48-93 ec2net: [get_meta] Trying to get http://169.254.169.254/1
Feb  5 18:23:58 ip-172-31-48-93 ec2net: [rewrite_aliases] Rewriting aliases of eth0
Feb  5 18:25:38 ip-172-31-48-93 dhclient[2812]: XMT: Solicit on eth0, interval 119550ms.
Feb  5 18:27:38 ip-172-31-48-93 dhclient[2812]: XMT: Solicit on eth0, interval 119320ms.
```

Assignment2

- `sudo vi ~/.bashrc`

 ec2-user@ip-172-31-48-93:~

```
# .bashrc

# Source global definitions
if [ -f /etc/bashrc ]; then
    . /etc/bashrc
fi

# Uncomment the following line if you don't like systemc
# export SYSTEMD_PAGER=

# User specific aliases and functions
Milad Azizi
echo "Welcome, Milad Azizi"
echo "Today day is $(date)"
echo Hostname is $(hostname)"
~
```

Assignment 3

1. Vi assignment3.text
2. Type 10 lines of text in vi editor
3. V→ to select , y→ to copy , p→ to paste
4. :→ set number→ number5→ select 3 char → x to delete
5. :%s/the/a/g →enter , :%s/a/the /g→enter
6. By using X
7. A enter desire Milad
8. "i" enter desire name 'milad'
9. :→v→select 3and 4 line→x
10. :s/['(aeicu)']//g→enter

Assignment 4

1. `ls /etc | grep -i [0-9]`

```
[ec2-user@ip-172-31-48-93 ~]$ ls /etc | grep -i [0-9]
dbus-1
DIR_COLORS.256color
e2fsck.conf
grub2.cfg
iproute2
krb5.conf
krb5.conf.d
mke2fs.conf
pkcs11
rc0.d
rc1.d
rc2.d
rc3.d
rc4.d
rc5.d
rc6.d
sas12
X11
```

2. `wget https://www.yelp.com/ → grep -c 'yelp' index.html`

```
[ec2-user@ip-172-31-48-93 ~]$ grep -c yelp index.html
130
[ec2-user@ip-172-31-48-93 ~]$
```

3. `find . -maxdepth 1 -mtime -1 -type f`

```
[ec2-user@ip-172-31-48-93 ~]$ find . -maxdepth 1 -mtime -1 -type f
./bash_history
./greeding
./sport.sh
./while.sh
./viminfo
./index.html.2
./ifstatment.sh
./for.sh
./counter
./hello.sh
[ec2-user@ip-172-31-48-93 ~]$ find . -maxdepth 1 -mtime -1 -type f
./bash_history
./greeding
./sport.sh
./while.sh
./viminfo
./index.html.2
./ifstatment.sh
./for.sh
./counter
./hello.sh
```

4. `sudo grep -c -i failed /var/log/dmesg`
`sudo grep -c -i failed /var/log/messages`
5. `head -50 index.html | sed 's/yelp/google/p' index.html`

```
0
[ec2-user@ip-172-31-48-93 ~]$ sudo grep -c -i failed /var/log/messages | sudo grep -i -c failed /var/log/dmesg
2
```

6. `sudo sed '/Crash/d' /var/log/messages > crashless`
7. `cat regextrain | sed 's/ //g'`

```
Thisisthefirstlineofanexampletext.
Itisatextwitherrors.
Itisatextwitherrors.
Lotsoferors.
Somucherrors,alltheseerrorsaremakingmesick
Thisisalinenotcontaininganyerrors.
Thisisthelastline.
```

8. `du -hs * | awk 'NR==1, NR==3 {print NR, $0}'`

```
[ec2-user@ip-172-31-48-93 ~]$ chmod 777 training/linux/assignment/
[ec2-user@ip-172-31-48-93 ~]$ du -hs * | awk 'NR==1, NR==3 {print NR, $0}'
1 4.0K assignment3.txt
2 20K assignmnets
3 4.0K bin
```

```
ec2-user@ip-172-31-48-93:~  
#!/bin/bash  
du -hs * | awk 'NR==1, NR==3 {print NR, $0}'  
~  
~  
~  
~  
~  
~
```

9. `ps aux --sort -rss` or `top -o %MEM`

```
For more details see ps(1).  
ec2-user@ip-172-31-48-93 ~]$ ps aux --sort -rss  
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND  
root      1667  0.0  5.2  98916 52772 ?        Ss   Feb03   0:08 /usr/lib/systemd/systemd-journald  
root      3182  0.0  2.8 136880 28484 ?        Sl   Feb03   0:05 /usr/bin/ssm-agent-worker  
root      3012  0.0  2.1 127244 21840 ?        Ssl  Feb03   0:09 /usr/bin/amazon-ssm-agent  
root      11494 0.0  0.8 152628 8708 ?        Ss   14:59   0:00 sshd: ec2-user [priv]  
root      3011  0.0  0.8 259556 8536 ?        Ssl  Feb03   0:22 /usr/sbin/rsyslogd -n  
root      3193  0.0  0.7 112852 7808 ?        Ss   Feb03   0:02 /usr/sbin/sshd -D  
root      12565 0.0  0.7 241804 7092 pts/0    T    17:04   0:00 sudo strace -p 1  
postfix   12404 0.0  0.6  90376 6636 ?        S    16:57   0:00 pickup -l -t unix -u  
postfix   2952  0.0  0.6  90452 6576 ?        S    Feb03   0:00 qmgr -l -t unix -u  
root       1  0.0  0.5 125584 5520 ?        ts   Feb03   0:07 /usr/lib/systemd/systemd --switched  
root      2948  0.0  0.4  90288 4816 ?        Ss   Feb03   0:00 /usr/libexec/postfix/master -w  
rngd      2503  0.0  0.4 169760 4672 ?        Ssl  Feb03   0:12 /sbin/rngd -f --fill-watermark=0  
root      2726  0.0  0.4 100664 4612 ?        Ss   Feb03   0:00 /sbin/dhclient -q -lf /var/lib/dhcl  
ec2-user  11529 0.0  0.4 152756 4536 ?        S    14:59   0:00 sshd: ec2-user@pts/0  
ec2-user  11531 0.0  0.4 125088 4424 pts/0    Ss   14:59   0:00 -bash  
dbus      2490  0.0  0.4  60340 4148 ?        Ss   Feb03   0:03 /usr/bin/dbus-daemon --system --add  
root      2812  0.0  0.4 100664 4084 ?        Ss   Feb03   0:00 /sbin/dhclient -6 -nw -lf /var/lib/  
root      1707  0.0  0.3  37972 4020 ?        Ss   Feb03   0:00 /usr/lib/systemd/systemd-udev
```

10. `sudo grep -i failed /var/log/messages | awk '{print $0}'`

```
Feb  8 18:01:51 ip-172-31-48-93 systemd-logind: Failed to start session scope session-902.s  
ut  
Feb  8 18:10:26 ip-172-31-48-93 systemd-logind: Failed to start user slice user-0.slice, ig  
out ((null))  
Feb  8 18:10:51 ip-172-31-48-93 systemd-logind: Failed to start session scope session-903.s  
ut  
Feb  8 18:20:26 ip-172-31-48-93 systemd-logind: Failed to start user slice user-0.slice, ig  
out ((null))  
Feb  8 18:20:51 ip-172-31-48-93 systemd-logind: Failed to start session scope session-904.s  
ut  
Feb  8 18:30:26 ip-172-31-48-93 systemd-logind: Failed to start user slice user-0.slice, ig  
out ((null))  
Feb  8 18:30:51 ip-172-31-48-93 systemd-logind: Failed to start session scope session-905.s  
ut  
Feb  8 18:40:26 ip-172-31-48-93 systemd-logind: Failed to start user slice user-0.slice, ig  
out ((null))  
Feb  8 18:40:51 ip-172-31-48-93 systemd-logind: Failed to start session scope session-906.s  
ut  
Feb  8 18:50:26 ip-172-31-48-93 systemd-logind: Failed to start user slice user-0.slice, ig  
out ((null))  
Feb  8 18:50:51 ip-172-31-48-93 systemd-logind: Failed to start session scope session-907.s
```

Assignment 5

1. `sudo yum install git → touch gitversion → git --version > gitversion`

```
ec2-user@ip-172-31-48-93:~  
[ec2-user@ip-172-31-48-93 ~]$ cat gitversion  
git version 2.23.3  
[ec2-user@ip-172-31-48-93 ~]$
```

`Sudo yum install httpd touch gitversion → httpd -version > httpdversion`

```
[ec2-user@ip-172-31-48-93 ~]$ cat httpdversion  
Server version: Apache/2.4.46 ()  
Server built: Aug 24 2020 18:54:20  
You have new mail in /var/spool/mail/ec2-user  
[ec2-user@ip-172-31-48-93 ~]$
```

`Sudo yum install mysql → myaql --version > mysqlversion`

```
You have new mail in /var/spool/mail/ec2-user  
[ec2-user@ip-172-31-48-93 ~]$ cat mysqlversion  
mysql Ver 15.1 Distrib 5.5.68-MariaDB, for Linux (x86_64) using readline 5.1  
[ec2-user@ip-172-31-48-93 ~]$
```

`Sudo yum install php → php -v > phpversion`

```
mysql Ver 15.1 Distrib 5.5.68-MariaDB, for Linux (x86_64) using  
[ec2-user@ip-172-31-48-93 ~]$ cat phpversion  
PHP 5.4.16 (cli) (built: Oct 31 2019 18:34:05)  
Copyright (c) 1997-2013 The PHP Group  
Zend Engine v2.4.0, Copyright (c) 1998-2013 Zend Technologies  
[ec2-user@ip-172-31-48-93 ~]$
```

- `Sudo yum install traceroute → trace` the packet route
- `Sudo yum install dig → DNS` look up utility and querying DNS nameservers for information about host addresses, mail exchanges, nameservers, and related information
- `Sudo yum install nslookup → find` the IP address that corresponds to a host, or the domain name that corresponds to an IP address (a process called "Reverse DNS Lookup")
- `Sudo yum install nc → Ncat` is a feature-packed networking utility which reads and writes data, across network connections, using the TCP or UDP protocols
- `Sudo yum install telnet → The telnet` command is used to communicate with another host using the TELNET protocol, virtual terminal connection
- `Sudo yum install netstat → Print` network connections, routing tables, interface statistics
- `Sudo yum install w → Show` who is logged on and what they are doing, a quick summary of every user logged into a computer, what each user is currently **doing**, and what load all the activity is imposing on the computer.

- Sudo yum install nmap➔is an open source tool for network exploration and security auditing. find live hosts on a network, perform port scanning, ping sweeps, OS detection, and version detection

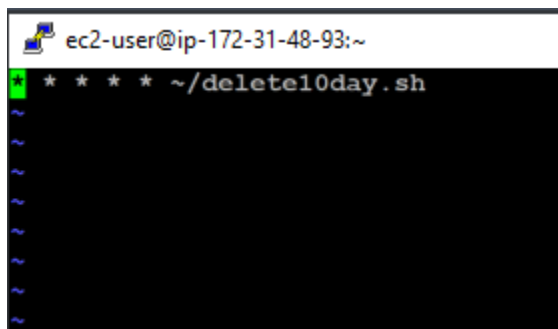
Assignment 6

1. rpm -qa | grep -c 'noarch'

```
you have new mail in /var/spool/mail/ec2-user  
[ec2-user@ip-172-31-48-93 ~]$ rpm -qa | grep -c 'noarch'  
104  
[ec2-user@ip-172-31-48-93 ~]$
```

2. sudo tar -cvf var_archive.tar /var/log/

3. crontab -e



```
ec2-user@ip-172-31-48-93:~  
* * * * * ~/.delete10day.sh  
~  
~  
~  
~  
~  
~  
~
```

Vi delete10day.sh


```
ec2-user@ip-172-31-48-93:~  
#!/bin/bash  
find /tmp -mtime +9 -type f -delete  
~  
~  
~  
~  
~  
~  
~  
~
```

Optional:

grep python /var/log/cloud-init.log

Assignment 7

1. ps aux | wc -l

```
ls: invalid line width: c  
[ec2-user@ip-172-31-48-93 log]$ ps aux | wc -l  
187  
You have new mail in /var/spool/mail/ec2-user  
[ec2-user@ip-172-31-48-93 log]$
```

2. systemctl --type service --state=active

```
[ec2-user@ip-172-31-48-93 ~]$ systemctl --type service --state=active
UNIT                                LOAD    ACTIVE SUB    DESCRIPTION
acpid.service                      loaded active running ACPI Event Daemon
amazon-ssm-agent.service           loaded active running amazon-ssm-agent
atd.service                        loaded active running Job spooling tools
auditd.service                    loaded active running Security Auditing Service
chronyd.service                   loaded active running NTP client/server
cloud-config.service              loaded active exited Apply the settings specified
cloud-final.service               loaded active exited Execute cloud user/final script
cloud-init-local.service          loaded active exited Initial cloud-init job (pre-seed)
cloud-init.service                loaded active exited Initial cloud-init job (metadata)
crond.service                     loaded active running Command Scheduler
dbus.service                      loaded active running D-Bus System Message Bus
getty@tty1.service                loaded active running Getty on tty1
gssproxy.service                  loaded active running GSSAPI Proxy Daemon
kmod-static-nodes.service         loaded active exited Create list of required static kernel
libstoragemgmt.service            loaded active running libstoragemgmt plug-in server
lvm2-lvmetad.service              loaded active running LVM2 metadata daemon
```