S_LINUX_08 Practicing

LINUX - LAB_3

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APRIL 2023

LINUX – DEVOPS

Linux – LAB_3:

1. Using vi write your CV in the file mycv. Your CV should include your name, age, school, college, experience, …

```
[kdawoud@localhost ~]$ vi mycv
[kdawoud@localhost ~]$ cat mycv
Name:          Khaled Mohamed Rashad Dawoud
Age:           35
University:    Alexandria University
Experience:    13+ Years of experience in HR field (HR Business Partner)

[kdawoud@localhost ~]$
```

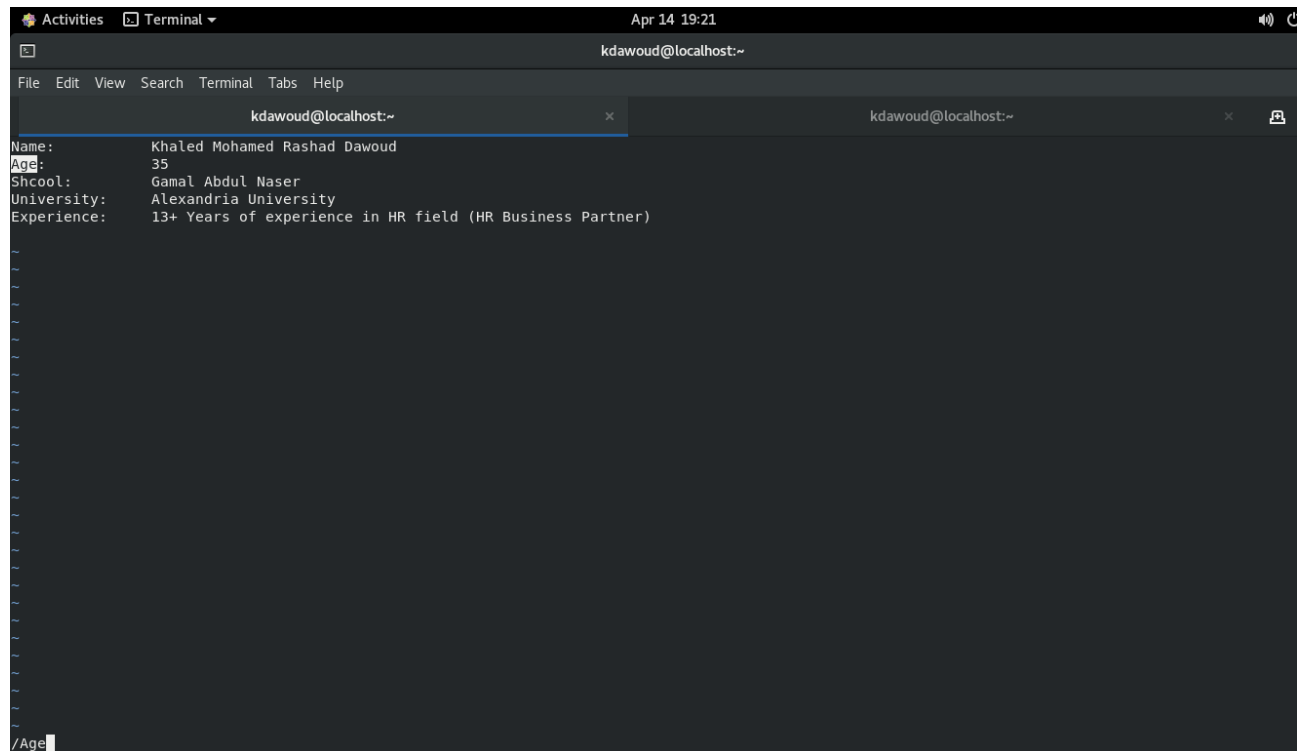2. Open mycv file using vi command then: Without using arrows state how to:
   a) Move the cursor down one line at time.

      Press "j" or "down arrow"

   b) Move the cursor up one line at time.

      Press "k" or "up arrow"

   c) Search for word age

   d) Step to line 5 (assuming that you are in line 1 and file is more than 5 lines).

      Press "5G" and "Enter" (CentOS)

e) Delete the line you are on and line 5.

Press "dd" and "5d"

f) How to step to the end of line and change to writing mode in one-step.

Press "A"

3. List the available shells in your system.

```
[kdawoud@localhost ~]$ cat /etc/shells
/bin/sh
/bin/bash
/usr/bin/sh
/usr/bin/bash
/usr/bin/tmux
/bin/tmux
/usr/bin/zsh
/bin/zsh
[kdawoud@localhost ~]$
```

4. List the environment variables in your current shell.

Type "env"

5. List all of the environment variables for the bash shell.

Type "set"

6. What are the commands that list the value of a specific variable?

Echo $VARIABLE_NAME

7. Display your current shell name.

```
[kdawoud@localhost ~]$ echo $SHELL
/bin/bash
```

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1. List the user commands and redirect the output to /tmp/commands.list

```
[kdawoud@localhost ~]$ compgen -c > /tmp/commands.list
[kdawoud@localhost ~]$ cat /tmp/commands.list
egrep
fgrep
grep
l.
ll
ls
vi
xzegrep
xzfgrep
xzgrep
zegrep
zfgrep
```

2. Count the number of user commands

```
[kdawoud@localhost ~]$ wc -w /tmp/commands.list
2471 /tmp/commands.list
[kdawoud@localhost ~]$
```

3. Get all the users names whose first character in their login is 'g'.

```
[kdawoud@localhost ~]$ cut -f1 -d : /etc/passwd | grep "^g"
games
geoclue
gluster
gdm
gnome-initial-setup
```

4. Get the logins name and full names (comment) of logins starts with "g".

```
[kdawoud@localhost ~]$ cut -f1,5 -d : /etc/passwd | grep "^g"
games:games
geoclue:User for geoclue
gluster:GlusterFS daemons
gdm:
gnome-initial-setup:
```

5. Save the output of the last command sorted by their full names in a file.

```
[kdawoud@localhost ~]$ cut -f1,5 -d : /etc/passwd | grep "^g" | sort -k2 -t : -o log_names.txt
[kdawoud@localhost ~]$ cat log_names.txt
gdm:
gnome-initial-setup:
games:games
gluster:GlusterFS daemons
geoclue:User for geoclue
[kdawoud@localhost ~]$
```

6. Write two commands: first: to search for all files on the system that named .bash_profile. Second: sorts the output of ls command on / recursively, Saving their output and error   in 2 different files and sending them to the background.

```
[kdawoud@localhost ~]$ find / -name .bash_profile
find: '/boot/efi/EFI/centos': Permission denied
find: '/boot/grub2': Permission denied
find: '/boot/loader/entries': Permission denied
find: '/proc/tty/driver': Permission denied
find: '/proc/1/task/1/fd': Permission denied
find: '/proc/1/task/1/fdinfo': Permission denied
find: '/proc/1/task/1/ns': Permission denied
find: '/proc/1/fd': Permission denied
find: '/proc/1/map_files': Permission denied
find: '/proc/1/fdinfo': Permission denied
find: '/proc/1/ns': Permission denied
find: '/proc/2/task/2/fd': Permission denied
find: '/proc/2/task/2/fdinfo': Permission denied
find: '/proc/2/task/2/ns': Permission denied
find: '/proc/2/fd': Permission denied
find: '/proc/2/map_files': Permission denied
```

```
[kdawoud@localhost ~]$ ls -R / > output.txt 2> error.txt &
[1] 140103
[kdawoud@localhost ~]$ jobs
[1]+  Exit 1                ls --color=auto -R / > output.txt 2> error.txt
[kdawoud@localhost ~]$
```

7. Display the number of users who is logged now to the system.

```
[kdawoud@localhost ~]$ who -q
kdawoud
# users=1
[kdawoud@localhost ~]$ who | wc -l
1
[kdawoud@localhost ~]$
```

8. Display lines 7 to line 10 of /etc/passwd file

```
[kdawoud@localhost ~]$ sed -n '7,10p' /etc/passwd
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
[kdawoud@localhost ~]$
```

9. What happens if you execute:

⬛ cat filename1 | cat filename2   will display the content of filename2 only

⬛ ls | rm   by passing parameter without operand will give error message

⬛ ls /etc/passwd | wc –l   it will print the newline counts

5

For questions 10, 11, 12, 13, 14, 15, and 16 will be in one screenshot:

10. Issue the command sleep 100.

11. Stop the last command.

12. Resume the last command in the background

13. Issue the jobs command and see its output.

14. Send the sleep command to the foreground and send it again to the background.

15. Kill the sleep command.

16. Display your processes only

```
[kdawoud@localhost ~]$ sleep 100
^Z
[1]+  Stopped                 sleep 100
[kdawoud@localhost ~]$ bg %1
[1]+ sleep 100 &
[kdawoud@localhost ~]$ jobs
[1]+  Running                 sleep 100 &
[kdawoud@localhost ~]$ fg %1
sleep 100
^Z
[1]+  Stopped                 sleep 100
[kdawoud@localhost ~]$ bg %1
[1]+ sleep 100 &
[kdawoud@localhost ~]$ sleep 100 &
[2] 141582
[kdawoud@localhost ~]$ kill 141582
[1]-  Done                    sleep 100
[kdawoud@localhost ~]$ jobs
[2]+  Terminated              sleep 100
[kdawoud@localhost ~]$ ps -u kdawoud
    PID TTY          TIME CMD
  22831 ?        00:00:02 systemd
  22835 ?        00:00:00 (sd-pam)
  22847 ?        00:00:31 pulseaudio
  22851 ?        00:00:00 gnome-keyring-d
  22859 tty2     00:00:00 gdm-wayland-ses
  22861 ?        00:00:05 dbus-daemon
  22866 tty2     00:00:00 gnome-session-b
  22935 tty2     00:17:43 gnome-shell
  22961 ?        00:00:00 gvfsd
  22970 ?        00:00:00 gvfsd-fuse
  22983 tty2     00:00:04 Xwayland
  22993 ?        00:00:00 at-spi-bus-laun
  22998 ?        00:00:00 dbus-daemon
  23001 ?        00:00:00 at-spi2-registr
```

17. Display all processes except yours

```
[kdawoud@localhost ~]$ ps ux | grep -v kdawoud
USER        PID %CPU %MEM    VSZ    RSS TTY      STAT START   TIME COMMAND
[kdawoud@localhost ~]$ ps aux | grep -v kdawoud
USER        PID %CPU %MEM    VSZ    RSS TTY      STAT START   TIME COMMAND
root          1  0.0  0.2 241184 14016 ?        Ss   Apr14   2:20 /usr/lib/systemd/systemd --switched-root --system
root          2  0.0  0.0      0     0 ?        S    Apr14   0:00 [kthreadd]
root          3  0.0  0.0      0     0 ?        I<   Apr14   0:00 [rcu_gp]
root          4  0.0  0.0      0     0 ?        I<   Apr14   0:00 [rcu_par_gp]
root          6  0.0  0.0      0     0 ?        I<   Apr14   0:00 [kworker/0:0H-events_highpri]
root          9  0.0  0.0      0     0 ?        I<   Apr14   0:00 [mm_percpu_wq]
root         10  0.0  0.0      0     0 ?        S    Apr14   0:00 [rcu_tasks_rude_]
root         11  0.0  0.0      0     0 ?        S    Apr14   0:00 [rcu_tasks_trace]
root         12  0.0  0.0      0     0 ?        S    Apr14   0:17 [ksoftirqd/0]
root         13  0.0  0.0      0     0 ?        R    Apr14   1:33 [rcu_sched]
root         14  0.0  0.0      0     0 ?        S    Apr14   0:00 [migration/0]
root         15  0.0  0.0      0     0 ?        S    Apr14   0:00 [watchdog/0]
root         16  0.0  0.0      0     0 ?        S    Apr14   0:00 [cpuhp/0]
root         17  0.0  0.0      0     0 ?        S    Apr14   0:00 [cpuhp/1]
root         18  0.0  0.0      0     0 ?        S    Apr14   0:00 [watchdog/1]
root         19  0.0  0.0      0     0 ?        S    Apr14   0:00 [migration/1]
root         20  0.0  0.0      0     0 ?        S    Apr14   0:07 [ksoftirqd/1]
root         22  0.0  0.0      0     0 ?        I<   Apr14   0:00 [kworker/1:0H-events_highpri]
root         25  0.0  0.0      0     0 ?        S    Apr14   0:00 [kdevtmpfs]
root         26  0.0  0.0      0     0 ?        I<   Apr14   0:00 [netns]
root         27  0.0  0.0      0     0 ?        S    Apr14   0:01 [kauditd]
root         29  0.0  0.0      0     0 ?        S    Apr14   0:00 [khungtaskd]
root         30  0.0  0.0      0     0 ?        S    Apr14   0:00 [oom_reaper]
root         31  0.0  0.0      0     0 ?        I<   Apr14   0:00 [writeback]
```

18. Use the pgrep command to list your processes only

```
[kdawoud@localhost ~]$ pgrep -au kdawoud
22831 /usr/lib/systemd/systemd --user
22835 (sd-pam)
22847 /usr/bin/pulseaudio --daemonize=no --log-target=journal
22851 /usr/bin/gnome-keyring-daemon --daemonize --login
22859 /usr/libexec/gdm-wayland-session --register-session gnome-session
22861 /usr/bin/dbus-daemon --session --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only
22866 /usr/libexec/gnome-session-binary
22935 /usr/bin/gnome-shell
22961 /usr/libexec/gvfsd
22970 /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o big_writes
22983 /usr/bin/Xwayland :0 -rootless -terminate -accessx -core -auth /run/user/1000/.mutter-Xwaylandauth.8KBC31 -listen 4 -listen 5 -displayfd 6
22993 /usr/libexec/at-spi-bus-launcher
22998 /usr/bin/dbus-daemon --config-file=/usr/share/defaults/at-spi2/accessibility.conf --nofork --print-address 3
23001 /usr/libexec/at-spi2-registryd --use-gnome-session
23010 ibus-daemon --xim --panel disable
23013 /usr/libexec/xdg-permission-store
23018 /usr/libexec/ibus-dconf
23019 /usr/libexec/ibus-extension-gtk3
23023 /usr/libexec/ibus-x11 --kill-daemon
23026 /usr/libexec/ibus-portal
23035 /usr/libexec/gnome-shell-calendar-server
23041 /usr/libexec/evolution-source-registry
```

19. Kill your processes only.

Type "pkill -u $USERNAME"