Lab 1

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

```
root@hasnaa:~# vi mycv
root@hasnaa:~# cat mycv
my name : Hasnaa Wael
age : 22
school : mansoura
college : Computer Science
experience : Data Analyst
```

2. Open mycv file using vi command then: Without using arrows state how to:

A. Search for the word “experience” in your CV

```
root@hasnaa:~# grep -i "experience" mycv
experience : Data Analyst
root@hasnaa:~#
```

B. Copy line in the beginning of the file my CV, and then paste it.

```
my name : Hasnaa Wael
age : 22
school : mansoura
college : Computer Science
experience : Data Analyst
my name : Hasnaa Wael
~
```

E. Delete the line you are on.

Dd

3. List the available shells in your system.

```
root@hasnaa:~# cat /etc/shells
# /etc/shells: valid login shells
/bin/sh
/bin/bash
/usr/bin/bash
/bin/rbash
/usr/bin/rbash
/usr/bin/sh
/bin/dash
/usr/bin/dash
/usr/bin/tmux
/usr/bin/screen
root@hasnaa:~#
```

4. List the environment variables in your current shell.

```
root@hasnaa:~# cat /etc/environment
PATH="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin"
root@hasnaa:~#
```

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

```
root@hasnaa:~# echo $HOME
/root
```

6. Display your current shell name.

```
root@hasnaa:~# echo $SHELL
/bin/bash
```

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

```
root@hasnaa:~# history >> /tmp/commands.list
root@hasnaa:~# cat /tmp/commands.list
    1  exist
    2  exit
    3  cat /etc/passwd
    4  ls f*
    5  cd
    6  exit
    7  cd
    8  sudo adduser user1
    9  clear
   10  exit
   11  vi mycv
   12  cat mycv
   13  /experience
   14  /
   15  clear
   16  grep -i "experience
   17  clear
   18  grep -i "experience" mycv
   19  clear
   20  vim mycv
   21  yy
   22  clear
   23  1G
   24  clear
```

8. Get all the users names whose first character in their login is ‘g’.

```
root@hasnaa:~# grep '^g*' /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
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nol
ogin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbi
n/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:102:105::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:103:106:systemd Time Synchronization,,,:/run/systemd:/usr/
sbin/nologin
```

9. Save the output of the last command in a file.

```
root@hasnaa:~# grep '^g*' /etc/passwd >> gfile
root@hasnaa:~# cat gfile
root:x:0:0:root:/root:/bin/bash
```

10. 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.

```
root@hasnaa:~# locate bash_profile
/mnt/c/Program Files/Git/etc/profile.d/bash_profile.sh
/mnt/c/Program Files (x86)/Microsoft Visual Studio/2019/Community/Common7/IDE
/CommonExtensions/Microsoft/TeamFoundation/Team Explorer/Git/etc/profile.d/ba
sh_profile.sh
/mnt/c/Users/hasna/AppData/Local/GitHubDesktop/app-3.2.7/resources/app/git/et
c/profile.d/bash_profile.sh
/mnt/c/msys64/etc/skel/.bash_profile
/mnt/c/msys64/home/hasna/.bash_profile
/usr/share/doc/adduser/examples/adduser.local.conf.examples/skel/dot.bash_pro
file
```

11. Display the number “ID” of users who are logged now to the system.

```
root@hasnaa:~# who -u
root     pts/1        2024-06-09 09:09 00:11         423
root@hasnaa:~#
```

12. Create a user account with the following attribute ·
username: islam ·
Fullname/comment: Islam Askar ·

Password: islam

```
root@hasnaa:~# sudo useradd -m islam -p islam -c "Islam Askar"
```

13. Create a user account with the following attribute ·
Username: baduser ·
Full name/comment: Bad User ·
Password: baduser

```
root@hasnaa:~# sudo useradd -m baduser -p baduser -c "Bad User"
root@hasnaa:~# tail -n1 /etc/passwd
baduser:x:1007:1008:Bad User:/home/baduser:/bin/sh
root@hasnaa:~#
```

14. Create a supplementary (Secondary) group called pgroup with group ID of 30000.

```
root@hasnaa:~# groupadd -g 3000 Fgroup
```

15. Create a supplementary group called badgroup

```
root@hasnaa:~# groupadd badgroup
```

16. Add islam user to the pgroup group as a supplementary group

```
root@hasnaa:~# usermod -aG Fgroup islam
```

17. Modify the password of islam's account to password

```
root@hasnaa:~# passwd islam
New password:
Retype new password:
passwd: password updated successfully
root@hasnaa:~#
```

18. Modify islam's account so the password expires after 30 days

```
root@hasnaa:~# chage -M 30 islam
```

19. Lock baduser account so he can't log in

```
root@hasnaa:~# passwd -l baduser
passwd: password expiry information changed.
```

20. Delete baduser account

```
root@hasnaa:~# userdel baduser
```

21. Delete the supplementary group called badgroup.

```
root@hasnaa:~# groupdel badgroup
```