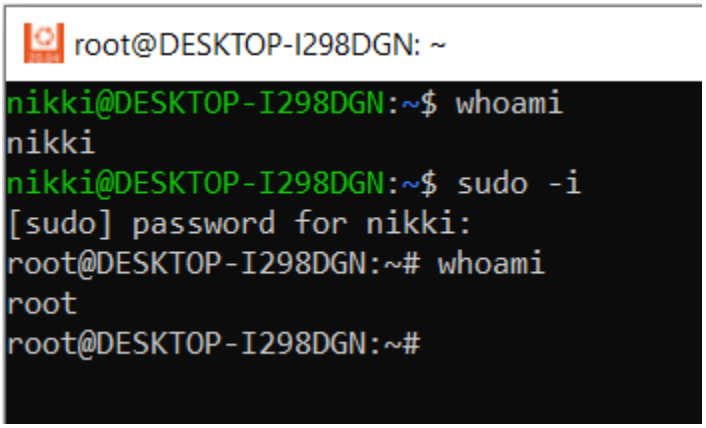
Linux Commands Part II

1. Elevate your user access to root.

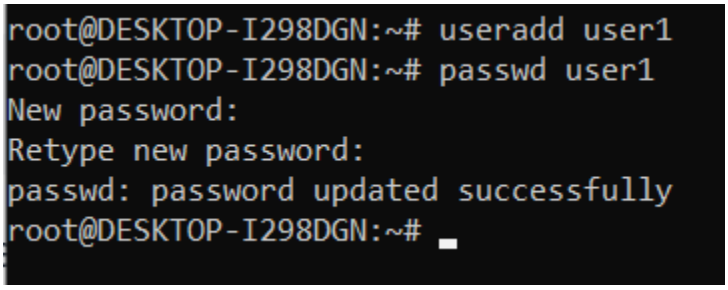
   - First, we check the currently logged in user with whoami command. Than we use the sudo command with -I as an argument, to access root. We enter the password and see how the $ sign changed to #. If we run whoami again we will see that we are now in the root directory.



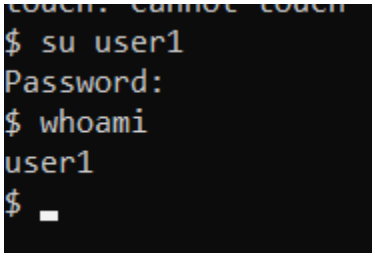
   NOTE: For us to exit root directory we use exit or logout commands.

2. Add a new user to your Linux OS and set a password for it.

   - For as to create user and the password for that user we use useradd command and passwd command. We write useradd USERNAME and passwd USERNAME, and after that we need to enter the password and after that to retype the password.

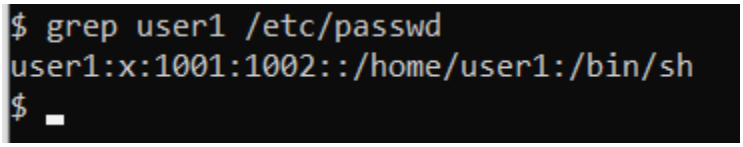


3. Test if you can log in using that user.
   - For us to login with the new user we use su command. And we need to enter the password for the new user. We can use whoami to see if we are logged in with the new user.



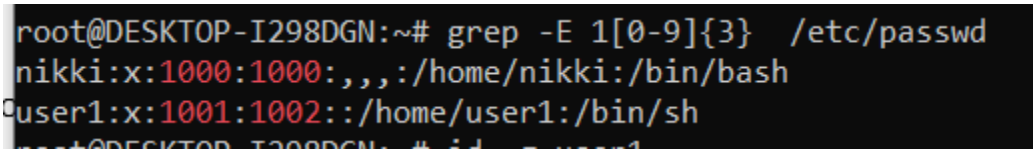
4. Using grep command check if the user is created.

   - We search through /etc/passwd file using grep command and the username.



5. Grep the UID of each user.

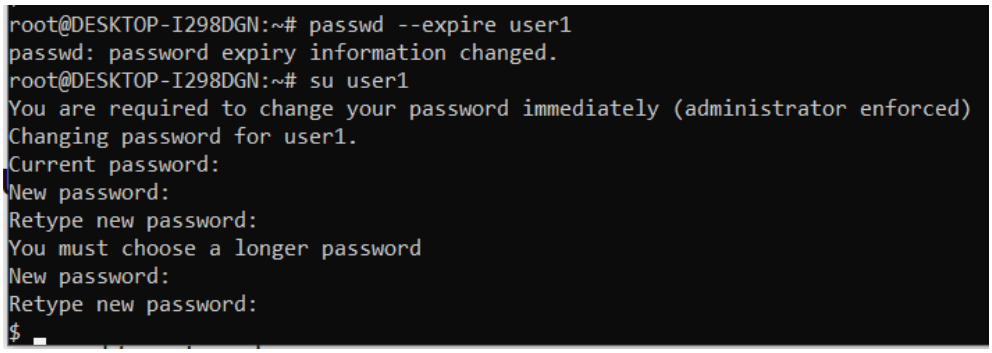
   - grep -E 1[0-9]{3} /etc/passwd



6. Find out the GID of the created user.

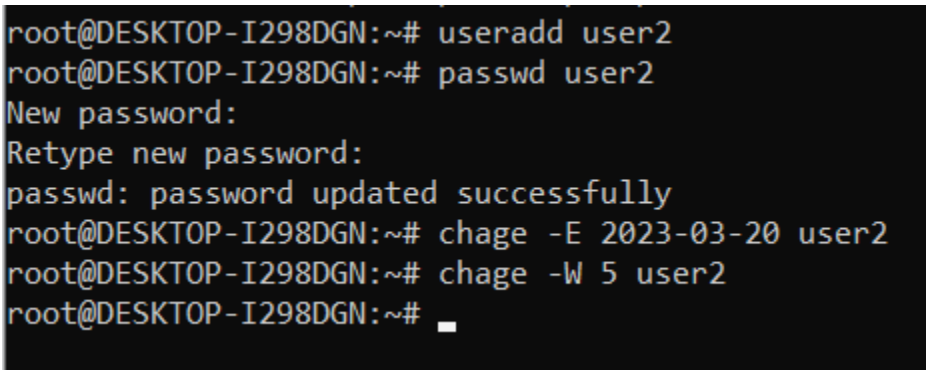
   - G

7. Change the password of the user and force it to change the pass on his next login.



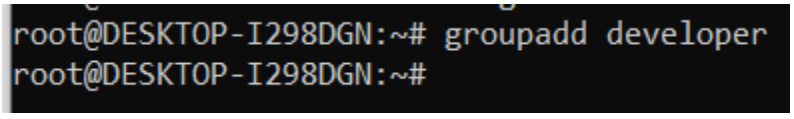
8. Add a new user and set an expiration date for it, with a five-day warning period.

   - To change the expiration date for the newly created user we use the chage command. The -E argument is for the user expire date, and it goes Y-M-D. The -W argument is for warn day, and the 5 is for days, in this case 5.



9. Create a new group.

   - For us to create a new group in Linux we use the command groupadd.



10. Assign the two new users to that group.

- Xx4

```
root@DESKTOP-I298DGN:~# usermod -g developer user1
root@DESKTOP-I298DGN:~# usermod -g developer user2
root@DESKTOP-I298DGN:~# tail /etc/group
landscape:x:115:
admin:x:116:
netdev:x:117:nikki
lxd:x:118:
nikki:x:1000:
docker:x:1001:nikki
fwupd-refresh:x:119:
user1:x:1002:
user2:x:1003:
developer:x:1004:
```

- Xx

11. Lock one of the user accounts.
    - To lock the user use the command passwd with -l argument.

```
root@DESKTOP-I298DGN:~# passwd -l user2
passwd: password expiry information changed.
```

12. Change the shell of one user to tcsh.

```
nikki@DESKTOP-I298DGN:~/labs$ sudo usermod --shell /bin/tcsh user2
```

13. Make sure your home directory has “execute” access enabled for group and other.

```
nikki@DESKTOP-I298DGN:~$ ls -l
total 36
-rwxr--r-- 1 nikki nikki  122 Mar  7 00:37 exercise1.sh
-rwxr--r-- 1 nikki nikki   67 Mar  7 03:28 exercise2.sh
-rwxr--r-- 1 nikki nikki  106 Mar  7 02:12 exercise3.sh
-rwxr--r-- 1 nikki nikki  244 Mar  7 02:24 exercise4.sh
-rwxr--r-- 1 nikki nikki  171 Mar  7 03:25 exercise5.sh
-rwxr--r-- 1 nikki nikki  128 Mar  7 03:20 exercise6.sh
-rwxr--r-- 1 nikki nikki   35 Mar  6 23:49 hello_world.sh
drwxr-xr-x 2 nikki nikki 4096 Mar  2 21:29 homework
-rwxr--r-- 1 nikki nikki  108 Mar  7 02:10 vezba.sh
nikki@DESKTOP-I298DGN:~$
```

14. Change to your home directory, and create a directory called labs.

```
nikki@DESKTOP-I298DGN:~$ mkdir labs
nikki@DESKTOP-I298DGN:~$ ls -l
total 40
-rwxr--r-- 1 nikki nikki  122 Mar  7 00:37 exercise1.sh
-rwxr--r-- 1 nikki nikki   67 Mar  7 03:28 exercise2.sh
-rwxr--r-- 1 nikki nikki  106 Mar  7 02:12 exercise3.sh
-rwxr--r-- 1 nikki nikki  244 Mar  7 02:24 exercise4.sh
-rwxr--r-- 1 nikki nikki  171 Mar  7 03:25 exercise5.sh
-rwxr--r-- 1 nikki nikki  128 Mar  7 03:20 exercise6.sh
-rwxr--r-- 1 nikki nikki   35 Mar  6 23:49 hello_world.sh
drwxr-xr-x 2 nikki nikki 4096 Mar  2 21:29 homework
drwxr-xr-x 2 nikki nikki 4096 Mar 10 21:25 labs
-rwxr--r-- 1 nikki nikki  108 Mar  7 02:10 vezba.sh
```

15. Create an empty file in labs directory.

```
nikki@DESKTOP-I298DGN:~$ cd labs
nikki@DESKTOP-I298DGN:~/labs$ touch labs
nikki@DESKTOP-I298DGN:~/labs$
```

16. Change permissions of file to rwx-rwx-rwx.
    - We use chmod comman. ugo is for user-group-other and rwx is for the permissions. rwd stands for read-write-execute.

```
nikki@DESKTOP-I298DGN:~/labs$ chmod ugo+rwx labs
nikki@DESKTOP-I298DGN:~/labs$ ls -l
total 0
-rwxrwxrwx 1 nikki nikki 0 Mar 10 21:31 labs
nikki@DESKTOP-I298DGN:~/labs$
```

17. List the file. What color is the file?
    - The file has green color.

```
nikki@DESKTOP-I298DGN:~/labs$ ls -l
total 0
-rwxrwxrwx 1 nikki nikki 0 Mar 10 21:31 labs
```

18. Change the permissions back to rx-rw-rw.

-c

```
nikki@DESKTOP-I298DGN:~/labs$ chmod 666 labs
nikki@DESKTOP-I298DGN:~/labs$ ls -l
total 0
-rw-rw-rw- 1 nikki nikki 0 Mar 10 21:31 labs
nikki@DESKTOP-I298DGN:~/labs$
```

19. Check what owners does the file have.

- Nikki is the owner and Nikki is the group name.

```
nikki@DESKTOP-I298DGN:~/labs$ ls -l
total 0
-rw-rw-rw- 1 nikki nikki 0 Mar 10 21:31 labs
```

20. Change the user ownership of the file to another user.

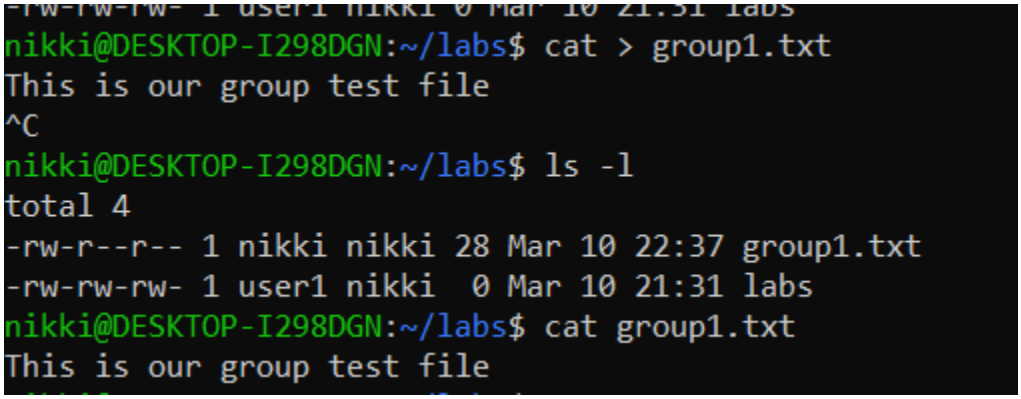
- We use chown command for changing the ownership of the file. But we use sudo in front because we are not in root.

```
nikki@DESKTOP-I298DGN:~/labs$ sudo chown user1 labs
[sudo] password for nikki:
nikki@DESKTOP-I298DGN:~/labs$ ls -l
total 0
-rw-rw-rw- 1 user1 nikki 0 Mar 10 21:31 labs
```

21. Create a group called group1 and assign two users to the group.

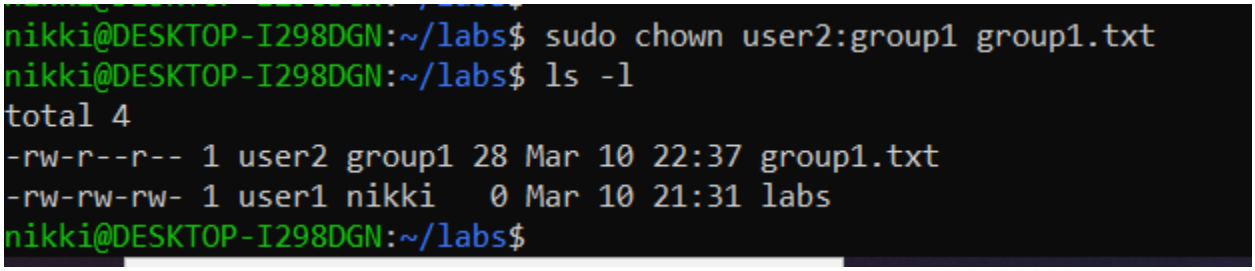
```
nikki@DESKTOP-I298DGN:~/labs$ sudo usermod -g group1 user1
nikki@DESKTOP-I298DGN:~/labs$ sudo usermod -g group1 user2
```

22. Create a file called group1.txt and redirect below input into the file: “This is our group test file”.



23. Change the group of the file to one of your users.

- Here we change the group and user of the file in the same time.



24. Give members of the group group1 read/write access to this file?