**Practice: Users and Groups**

1. Create the users Serena Williams, Venus Williams and Justine Henin, all of them

with password set to stargate, with username (lower case!) as their first name, and

their full name in the comment. Verify that the users and their home directory are

properly created.

- sudo useradd -m serena

- sudo useradd -m venus

- sudo useradd -m justine

- cat /etc/passwd

- ls /home

2. Create a user called **kornuser**, give him the Korn shell (/bin/ksh) as his default

shell. Log on with this user (on a command line or in a tty).

- sudo useradd kornuser

- sudo apt install ksh

- sudo usermod --shell /bin/ksh kornuser

3. Create a user named **einstime** without home directory, give him **/bin/date** as his

default logon shell. What happens when you log on with this user ? Can you think of

a useful real world example for changing a user's login shell to an application ?

- sudo useradd einstime

- sudo usermod --shell /bin/date einstime

4. Try the commands who, whoami, who am i, w, id, echo $USER $UID .

they print out information about the user

"who" prints the username, tty and date

"whoami" only prints the user name

"who am i" works on kornshell but not bash

"w" prints username, tty, login time and session info

"id" prints user id, group id, and some more info

"echo $USER $UID" prints the username and user id

5a. Lock the **venus** user account with usermod.

- sudo usermod -L venus

5b. Use **passwd -d** to disable the serena password. Verify the serena line in **/etc/**

**shadow** before and after disabling.

- sudo cat /etc/shadow

- sudo passwd -d serena

- sudo cat /etc/shadow

5c. What is the difference between locking a user account and disabling a user

account's password ?

6. As **root** change the password of **einstime** to stargate.

- sudo su

- passwd einstime

- new password: stargate

- new password again: stargate

7. Now try changing the password of serena to serena as serena.

- sudo -u serena -s

- passwd

current password: stargate

new password: serena

new password again: serena

8. Make sure every new user needs to change his password every 10 days.

change PASS\_MAX\_DAYS in /etc/login.defs

9. Set the warning number of days to four for the kornuser.

- sudo chage -W 4 kornuser

10a. Set the password of two separate users to stargate. Look at the encrypted

stargate's in /etc/shadow and explain.

- sudo passwd venus

- sudo passwd justine

- less /etc/shadow

the encrypted passwords are different

10b. Take a backup as root of /etc/shadow. Use vi to copy an encrypted stargate to

another user. Can this other user now log on with stargate as a password ?

the user can now login using stargate as password

11. Put a file in the skeleton directory and check whether it is copied to user's home

directory. When is the skeleton directory copied ?

the skeleton directory is copied when a user is first created

12. Why use **vipw** instead of **vi** ? What could be the problem when using **vi** or **vim** ?

vipw is made to edit the shadow and passwd files and it contains multiple editors

vi and vim are difficult and vipw makes sure the files are saved correctly

13. Use chsh to list all shells, and compare to cat /etc/shells. Change your login shell

to the Korn shell, log out and back in. Now change back to bash.

- cat /etc/shells

- chsh

password

/bin/ksh93

- chsh

password

/bin/bash

14. Which useradd option allows you to name a home directory ?

- useradd -d

15. How can you see whether the password of user harry is locked or unlocked ? Give a solution with grep and a solution with passwd.

- grep harry /etc/shadow

then check if theres and exclamation mark before the password

- passwd -S harry

16. Create the groups tennis, football and sports.

- sudo groupadd tennis

- sudo groupadd football

- sudo groupadd sports

17. In one command, make venus a member of tennis and sports.

- sudo usermod -aG tennis,sports venus

18. Rename the football group to foot.

- sudo groupmod -n foot football

19. Use vi to add serena to the tennis group.

- sudo vi /etc/group

find tennis

press i to enter insert mod

add ",serena" to the tennis group line

press esc then : and then wq to leave and save

20. Use the id command to verify that serena is a member of tennis.

- id serena