

Lab_2

Create a user account with the following attribute

- a. username Islam
- b. Fullname: Islam Askar
- c. Password: islam

```
[alaa@Alaa-khaled ~]$ sudo useradd Islam -c "Islam Asker"
[sudo] password for alaa:
[alaa@Alaa-khaled ~]$ tail -1 /etc/passwd
Islam:x:2113:2113:Islam Asker:/home/Islam:/bin/bash
[alaa@Alaa-khaled ~]$ passwd Islam
passwd: Only root can specify a user name.
[alaa@Alaa-khaled ~]$ sudo passwd Islam
Changing password for user Islam.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[alaa@Alaa-khaled ~]$ tail -1 /etc/passwd
Islam:x:2113:2113:Islam Asker:/home/Islam:/bin/bash
```

2:Create a user account with the following attribute

- a. Username Baduser
- b. Full name: Bad User
- c. Password: baduser

```
[alaa@Alaa-khaled ~]$ sudo useradd baduser -c "Bad User"
[sudo] password for alaa:
[alaa@Alaa-khaled ~]$ sudo passwd baduser
Changing password for user baduser.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[alaa@Alaa-khaled ~]$ tail -2 /etc/passwd
Islam:x:2113:2113:Islam Asker:/home/Islam:/bin/bash
baduser:x:2114:2114:Bad User:/home/baduser:/bin/bash
```

3- Create a supplementary (Secondary) group called pgroup with group ID of 30000

```
groupadd: cannot lock /etc/group; try again later.  
[alaa@Alaa-khaled ~]$ sudo groupadd pgroup -g 3000  
[sudo] password for alaa:  
[alaa@Alaa-khaled ~]$
```

4- Create a supplementary group called badgroup

```
[alaa@Alaa-khaled ~]$ sudo groupadd badgroup  
[alaa@Alaa-khaled ~]$
```

5- Add islam user to the padgroup group as a supplementary group

```
[alaa@Alaa-khaled ~]$ sudo usermod Islam -G badgroup  
[alaa@Alaa-khaled ~]$
```

6- Modify the password of islam's account to password

```
[alaa@Alaa-khaled ~]$ sudo passwd Islam  
Changing password for user Islam.  
New password:  
BAD PASSWORD: The password fails the dictionary check - it is b  
ary word  
Retype new password:  
passwd: all authentication tokens updated successfully.  
[alaa@Alaa-khaled ~]$
```

7- Modify islam's account so the password expires after 30 days

```
[alaa@Alaa-khaled ~]$  
[alaa@Alaa-khaled ~]$ sudo chage -E "2023-4-16" Islam  
[sudo] password for alaa:  
[alaa@Alaa-khaled ~]$
```

8- Lock baduser account so he can't log in

```
[alaa@Alaa-khaled ~]$ sudo passwd -l baduser  
Locking password for user baduser.  
passwd: Success  
[alaa@Alaa-khaled ~]$
```

9- Delete baduser account

```
[alaa@Alaa-khaled ~]$  
[alaa@Alaa-khaled ~]$ sudo userdel -r baduser  
[alaa@Alaa-khaled ~]$
```

10- Delete the supplementary group called badgroup

```
[alaa@Alaa-khaled ~]$ sudo groupdel badgroup
[alaa@Alaa-khaled ~]$
```

13-Create a folder called myteam in your home directory and change its permissions to read only for the owner

```
[alaa@Alaa-khaled home]$ sudo mkdir myteam
[sudo] password for alaa:
[alaa@Alaa-khaled home]$ ls
alaa      bob      docs     Islam    natasha  sara
Alaa_khaled  dir1    harry    myteam   oldpasswd sysadms
[alaa@Alaa-khaled home]$ chmod 400 myteam
chmod: changing permissions of 'myteam': Operation not permitted
[alaa@Alaa-khaled home]$ ls -ld myteam/
drwxr-xr-x. 2 root root 6 Mar 18 13:51 myteam/
[alaa@Alaa-khaled home]$ sudo chmod 400 myteam
[alaa@Alaa-khaled home]$ ls -ld myteam/
dr-----. 2 root root 6 Mar 18 13:51 myteam/
```

14 - Log out and log in by another user

```
[alaa@Alaa-khaled home]$ sudo su - Islam
[Islam@Alaa-khaled ~]$ exit
logout
[alaa@Alaa-khaled home]$
```

15 - Try to access the folder my team

```
dr-----. 2 alaa alaa 6 Mar 18 14:13 myteam
[alaa@Alaa-khaled ~]$ cd myteam/
bash: cd: myteam/: Permission denied
[alaa@Alaa-khaled ~]$
```

16- A-Change the permissions of oldpassword file to give owner read and write permissions and for group write and execute and execute only for the others (using chmod in 2 different ways)

```
[alaa@Alaa-khaled home]$ sudo chmod u=r+w,g=w+x,o=x oldpasswd
[sudo] password for alaa:
[alaa@Alaa-khaled home]$ ls -ld oldpasswd
-rw--wx--x. 1 root root 2885 Mar 14 16:51 oldpasswd
[alaa@Alaa-khaled home]$ sudo chmod 631 oldpasswd
[alaa@Alaa-khaled home]$ ls -ld oldpasswd
-rw--wx--x. 1 root root 2885 Mar 14 16:51 oldpasswd
[alaa@Alaa-khaled home]$
```

16 b -Change your default permissions to be as above

```
drwx--wx--x. 2 alaa alaa 0 Mar 18 14:13
[alaa@Alaa-khaled ~]$ umask 146
[alaa@Alaa-khaled ~]$
```

16.c- What is the maximum permission a file can have, by default when it is just created? And what is that for directory.

Maximum default permission for file = 666 (-rw- , rw- , rw)

Maximum default permission for dir = 777 (drwx , rwx , rwx)

16.d- Change your default permissions to be no permission to everyone then create a directory and a file to verify.

```
[alaa@Alaa-khaled ~]$ umask 777
[alaa@Alaa-khaled ~]$ mkdir folder
[alaa@Alaa-khaled ~]$ touch file1
[alaa@Alaa-khaled ~]$ ls
d      dirl      Downloads  folder  myteam    Pictures  Templates
Desktop Documents  file1     Music   oldpasswd Public    Videos
[alaa@Alaa-khaled ~]$
```

17. What are the minimum permission needed for :

A. Copy a directory (source = rx target = wx)

B. Copy a file (source = r and target = wx)

C. Delete a file = r

D. Change to a directory = x

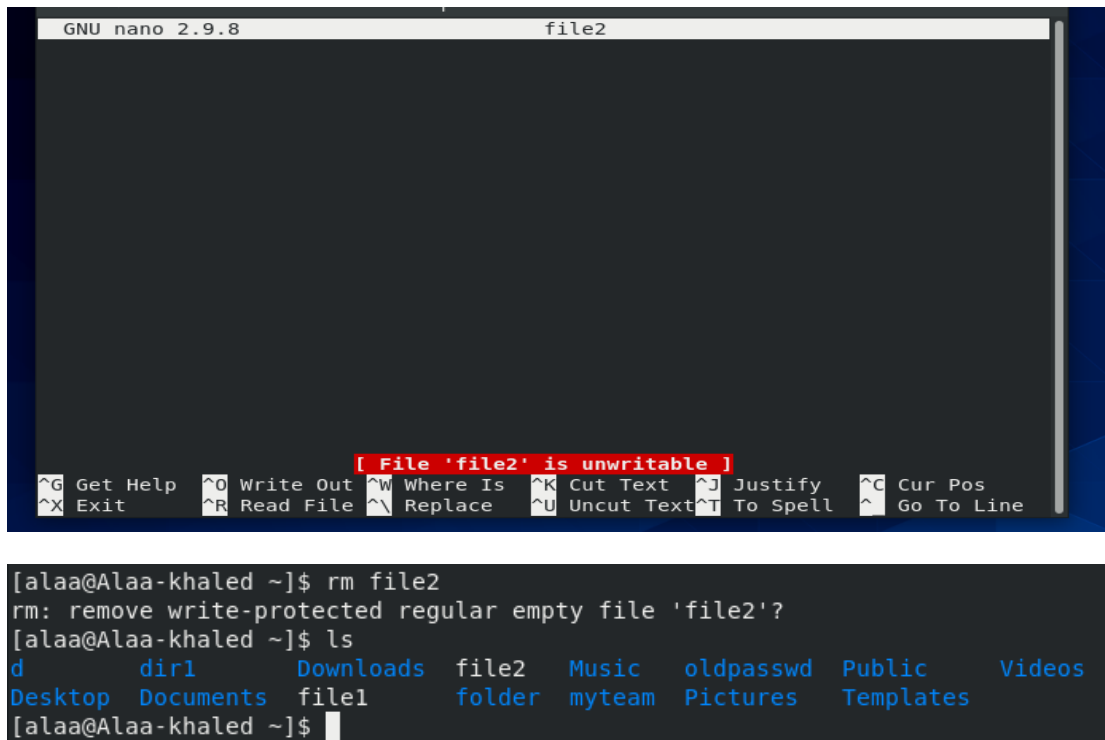
E. List a directory content = rx

F. View a file content = wx

G. Modify a file content = wx

18. Create a file with permission 444. Try to edit in it and to remove it? Note what happened. (notice write protection in Linux)

```
[alaa@Alaa-khaled ~]$ touch file2
[alaa@Alaa-khaled ~]$ chmod 444 file2
[alaa@Alaa-khaled ~]$ ls -ld file2
-r--r--r--. 1 alaa alaa 0 Mar 18 15:26 file2
[alaa@Alaa-khaled ~]$ nano file2
[alaa@Alaa-khaled ~]$
```



The image shows a terminal window with a nano editor session. The top bar of the nano editor indicates 'GNU nano 2.9.8' and the filename 'file2'. The editor's status bar at the bottom displays various keyboard shortcuts. A red error message, '[File 'file2' is unwritable]', is visible in the center of the editor. Below the editor, the terminal shows the execution of the 'rm file2' command, which results in an error: 'rm: remove write-protected regular empty file 'file2'?'. Following this, the 'ls' command is executed, listing the contents of the current directory, which includes 'dirl', 'Downloads', 'file2', 'Music', 'oldpasswd', 'Public', 'Videos', 'Desktop', 'Documents', 'file1', 'folder', 'myteam', 'Pictures', and 'Templates'.

```
GNU nano 2.9.8 file2

[ File 'file2' is unwritable ]

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace  ^U Uncut Text ^T To Spell  ^_ Go To Line

[alaa@Alaa-khaled ~]$ rm file2
rm: remove write-protected regular empty file 'file2'?
[alaa@Alaa-khaled ~]$ ls
d      dirl      Downloads  file2    Music    oldpasswd Public  Videos
Desktop Documents  file1     folder  myteam   Pictures Templates
[alaa@Alaa-khaled ~]$
```

19. What is the difference between the “x” permission for a file and for a directory

The “x” permission for a file means that the file can be executed, for the directory it means that we are able to “enter in” or change directory to this directory