

Assigment 3:

```
https://aka.ms/powershell
Type 'help' to get help.

(tkbw@vbox)-[/home/tkbw]
PS> cd ..

(tkbw@vbox)-[/home]
PS> sudo adduser john
[sudo] password for tkbw:
info: Adding user `john' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `john' (1009) ...
info: Adding new user `john' (1009) with group `john (1009)' ...
info: Creating home directory `/home/john' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for john
Enter the new value, or press ENTER for the default
  Full Name []: 56
   Room Number []: 25
   Work Phone []: 45
   Home Phone []: 78
    Other []: 5
Is the information correct? [Y/n] Y
info: Adding new user `john' to supplemental / extra groups `users' ...
info: Adding user `john' to group `users' ...

(tkbw@vbox)-[/home]
PS> sudo groupadd developers

(tkbw@vbox)-[/home]
PS> usermod -a -G ^C

(tkbw@vbox)-[/home]
PS> ^C

(tkbw@vbox)-[/home]
PS> usermod -a -G developers john
usermod: Permission denied.
usermod: cannot lock /etc/passwd; try again later.

(tkbw@vbox)-[/home]
$ sudo su
(root@vbox)-[/home]
# usermod -a -G developers john
```

=> 1. Create a new collection and user
Sudo Groupadd Developers:
It creates a new group called "Developers" to collect specific users in it.
Sudo Usermod -M John -G Developers:
It creates a new user called "John", appoints a home folder, and adds it to the "Developers" collection.

```

(root@vbox)-[/home]
# cd john
File System
(root@vbox)-[/home/john]
# mkdir test_folder

(root@vbox)-[/home/john]
# ls -l
total 4
-rwxr-xr-x 2 root root 4096 Oct 31 05:40 test_folder

(root@vbox)-[/home/john]
# cd test_folder

(root@vbox)-[/home/john/test_folder]
# touch sample.txt

(root@vbox)-[/home/john/test_folder]
# chown john:developers sample.txt

(root@vbox)-[/home/john/test_folder]
# ls -l
total 0
-rw-r--r-- 1 john developers 0 Oct 31 05:52 sample.txt

```

=> 2. Create a folder and file with a change of ownership

Sudo Mkdir/Home/John/Test_folder:

It creates a new folder called "Test_folder" inside the John folder.

Sudo Touch

/home/john/test_folder/sample.txt:

It creates an empty file called "Sample.txt" inside the new folder.

Sudo Chown -r John:

Developers/Home/John/Test_folder:

Change the ownership of the folder and its contents to the user John and the Developers Group.

```

(root@vbox)-[/home/john/test_folder]
# chmod 700 sample.txt

(root@vbox)-[/home/john/test_folder]
# cd sample.txt
cd: not a directory: sample.txt

(root@vbox)-[/home/john/test_folder]
# chmod 700 sample.txt

(root@vbox)-[/home/john/test_folder]
# ls -l
total 0
-rwx----- 1 john developers 0 Oct 31 05:52 sample.txt

(root@vbox)-[/home/john/test_folder]
# chmod 740 sample.txt

(root@vbox)-[/home/john/test_folder]
# ls -l
total 0
-rwxr----- 1 john developers 0 Oct 31 05:52 sample.txt

```

=> 3. Modify the permissions

Sudo Chmod

700/Home/John/Test_folder:

Folding permissions so that the owner (John) can only reach full access, and prevents the group and others.

Sudo Chmod 740/home/john/test_folder/sample.txt: John gives complete permissions on the file, gives the collection of reading permissions only, and prevents others.

```
(tkbw@vbox)-[~]
$ su john
Password:
(john@vbox)-[/home/tkbw]
$ sudo su
[sudo] password for john:
john is not in the sudoers file.

(john@vbox)-[/home/tkbw]
$ cd tset_folder
bash: cd: tset_folder: Permission denied

(john@vbox)-[/home/test_folder]
$ su tkbw
Password:
(tkbw@vbox)-[/home/test_folder]
$ touch newfile.txt
touch: cannot touch 'newfile.txt': Permission denied

(tkbw@vbox)-[/home/test_folder]
$ sudo su
[sudo] password for tkbw:
Sorry, try again.
[sudo] password for tkbw:
(root@vbox)-[/home/test_folder]
# touch newfile.txt

(root@vbox)-[/home/test_folder]
# ls -l
total 0
-rw-r--r-- 1 root root 0 Oct 31 10:06 newfile.txt
```

=> 4. Access test with different users

SU - John: Switching to John user to ensure access to the folder and file.

Touch

/home/john/test_folder/newfile.txt:
Create a new file inside the folder, which must succeed because John has the powers of writing in the folder.

Sudo -u Another_user Touch

/home/john/test_folder/newfile2.txt: Try to create a file as another user, which will fail because the permissions prevent access to others.

5. Check the permissions

LS -l/Home/John/Test_Folder: It displays the current permissions of the "Test_folder" folder and its files to check the settings.

Explanations should include the effect of these permissions on the access of users and groups to folders and files.

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