

Lab 3, Week 4

Due date: Friday, February 03 23:30

See the lab partners file included with this weeks notes.

Make sure that you work with your lab partners. If a team member is absent contact them and work with them remotely via discord, zoom, ravens...

Don't divide up the work, work on each question together. It is important that you all learn the material in every lab.

Lab must be completed as a regular user, not the root user.

Instructions

Part one: 2 points

Create a new regular user with the `useradd` utility. Your new users should have:

- a home directory `/home/user-name`
 - config files from `/etc/skel` should be copied to the new user's home directory
- use bash as their login shell

Include 4 screenshots for this.

Include 1 screenshot that demonstrates the command you used.

```
vagrant@ubuntu2210:/$ sudo useradd -m -k -d -s /bin/bash markus
```

Include 2 screenshots that show where you found how to do both of the above bullet points in the man page for `useradd`

```
-d, --home-dir HOME_DIR
    The new user will be created using HOME_DIR as the value for the user's login directory. The default is to ap
pend the LOGIN name to BASE_DIR
    and use that as the login directory name. If the directory HOME_DIR does not exist, then it will be created u
nless the -M option is
    specified.
```

```
-k, --skel SKEL_DIR
    The skeleton directory, which contains files and directories to be copied in the user's home directory, when
    the home directory is created by
    useradd.

    This option is only valid if the -m (or --create-home) option is specified.

    If this option is not set, the skeleton directory is defined by the SKEL variable in /etc/default/useradd or,
    by default, /etc/skel.

    If possible, the ACLs and extended attributes are copied.
```

```
-s, --shell SHELL
    The name of the user's login shell. The default is to leave this field blank, which causes the system to
    select the default login shell specified by the SHELL variable in /etc/default/useradd, or an empty string
    by default.
```

Include a screenshot that demonstrates you succeeded in creating a new user by finding the new line created in a file that contains information about users. We have looked at this file a few times.

```
vagrant@ubuntu2210:/$ grep markus /etc/passwd
markus:x:1001:1001::/home/markus:/bin/bash
```

Part two: 1 point

Give your new user a password.

Submit a screenshot of the command that you used.

```
vagrant@ubuntu2210:/$ sudo passwd markus
New password:
Retype new password:
passwd: password updated successfully
```

Part three: 1 point

Give your new user permission to use sudo.

```
-a, --append
    Add the user to the supplementary group(s). Use only with the -G option.
```

Submit a screenshot of the command you used.

```
vagrant@ubuntu2210:/$ sudo usermod -aG sudo markus
```

Part four: 1 point

Create a new system user with the name "weekfour"

Submit a screenshot of the command you used.

```
vagrant@ubuntu2210:/$ sudo useradd -r weekfour
```

Part five: 2 points

create a new week4 directory in `/var`

Make the weekfour user and group the owner of the week4 directory

Submit a screenshot of the command you used to change the ownership of the directory.

```
vagrant@ubuntu2210:/var$ sudo chown weekfour:weekfour week4
```

Part six: 2 points

create a new file in the week4 directory (file name is up to you)

Change the file's permission to match the following.

```
rwxr---wx
```

Submit a screenshot of the command you used to change the file's permission.

```
vagrant@ubuntu2210:/var/week4$ sudo chmod 743 week4.txt
```

Include a note on why you think these permissions are odd.

This only needs to be 1-2 sentences.

```
I think these permission are odd because
```

Part seven: 2 points

How could you change to your new regular user created in part one? Without logging out and logging back in again. In addition to becoming the new user, you want to inherit their environment variables and shell configuration.

Include the command you found and citations to any resources you used.

```
vagrant@ubuntu2210: /var/ww  X + v
vagrant@ubuntu2210:/var/week4$ man su
vagrant@ubuntu2210:/var/week4$ su markus
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

markus@ubuntu2210:/var/week4$ whoami
markus
markus@ubuntu2210:/var/week4$ S|
```

```
vagrant@ubuntu2210: /var/ww  X + v
SU(1)                                User Commands                                SU(1)

NAME
    su - run a command with substitute user and group ID

SYNOPSIS
    su [options] [-] [user [argument...]]

DESCRIPTION
    su allows commands to be run with a substitute user and group ID.

    When called with no user specified, su defaults to running an interactive shell as root. When user is
    specified, additional arguments can be supplied, in which case they are passed to the shell.

    For backward compatibility, su defaults to not change the current directory and to only set the environment
    variables HOME and SHELL (plus USER and LOGNAME if the target user is not root). It is recommended to always
    use the --login option (instead of its shortcut -) to avoid side effects caused by mixing environments.

    This version of su uses PAM for authentication, account and session management. Some configuration options
    found in other su implementations, such as support for a wheel group, have to be configured via PAM.

    su is mostly designed for unprivileged users, the recommended solution for privileged users (e.g., scripts
    executed by root) is to use non-set-user-ID command runuser(1) that does not require authentication and
    provides separate PAM configuration. If the PAM session is not required at all then the recommended solution
    is to use command setpriv(1).

    Note that su in all cases uses PAM (pam_getenvlist(3)) to do the final environment modification. Command-line
    options such as --login and --preserve-environment affect the environment before it is modified by PAM.

Manual page su(1) line 1 (press h for help or q to quit)
```

You don't need to format your citation using any specific style guide.

A man page can be a resource.

```
vagrant@ubuntu2210: /var/wi X + v
vagrant@ubuntu2210:/var/week4$ man su
vagrant@ubuntu2210:/var/week4$ su markus
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

markus@ubuntu2210:/var/week4$ whoami
markus
markus@ubuntu2210:/var/week4$ S|
```

Total: 11 Points

****Submission Instructions****

Submit a .pdf using the dropbox on D2L

Title your pdf "your-name-lab3.pdf" ie "nathan-mcninch-lab3.pdf"

File must be a .pdf.

Only one submission per team, make sure that all team members names are on the file.