Assignment - 4
Adduser or useradd

What is adduser?
Adduser is nothing but the command in linux which is used to create a new user or group. This command allows us to modify the configurations of the user which is to be created.

adduser will create a home directory subject to DHOME, GROUPHOMES, and LETTERHOMES. The home directory can be overridden from the command line with the --home option and the shell with the --shell option. The home directory's set-group-ID bit is set if USERGROUPS is yes so that any files created in the user's home directory will have the correct group.

adduser will copy files from SKEL into the home directory and prompt for finger (gecos) information and a password. The gecos may also be set with the --gecos option.
With the --disabled-login option, the account will be created but will be disabled until a password is set. The --disabled-password option will not set a password, but login is still possible (for example with SSH RSA keys). To set up an encrypted home directory for the new user, add the --encrypt-home option.
If the file /usr/local/sbin/adduser.local exists, it will be executed after the user account has been set up in order to do any local setup. The arguments passed to ad-
duser.local are:
username uid gid home-directory

The basic syntax of adduser command is as follows:-

sudo   adduser   <options> <username>

Note:- By default , the command adds a user based on the pre configured options in the /etc/adduser.cong file

1) Add Regular user
If you want to add a regular user the most basic way to use a**dduser command is without any options**.
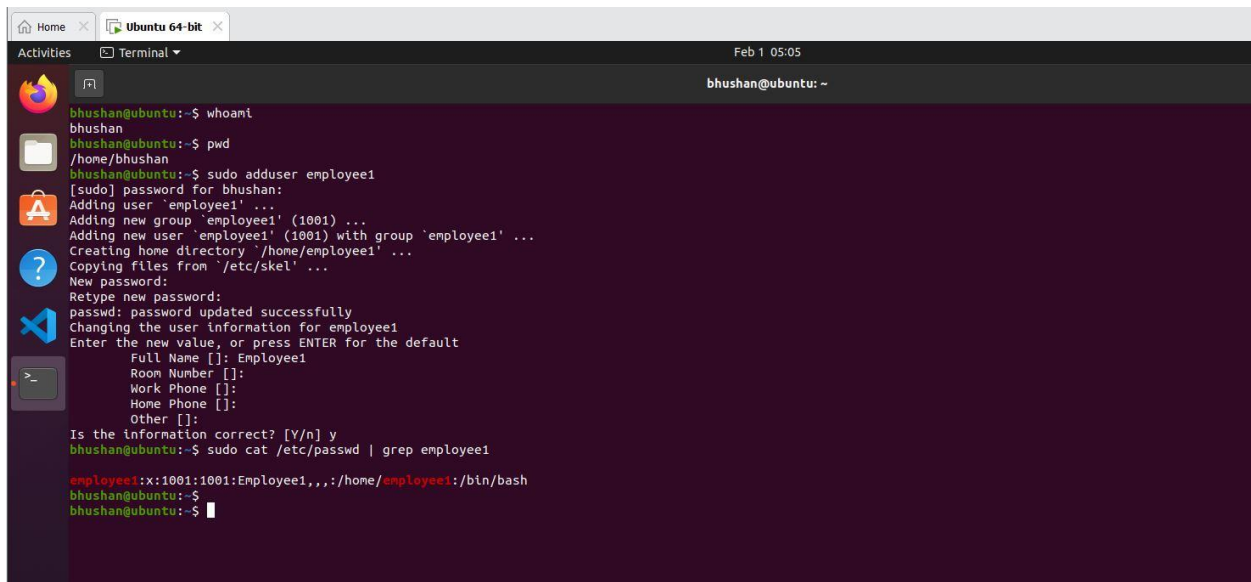For example , **sudo adduser employee1**
After executing this command it will
   1) Create the user with provided username and first available UID(1000 and greater)
   2) It will also create a group with the same name and uses the first available GID.
   3) It will add the user to the created group.
   4) It will also create a home directory for the user (**/home/<username>**)
   5) It will prompt the password to set up the user's password.
   6) It also asks for additional user details.

Note:- Created user appears on the user list in the **/etc/passwd** file.

So to show list of all users and grep the new user with the help of following command:-
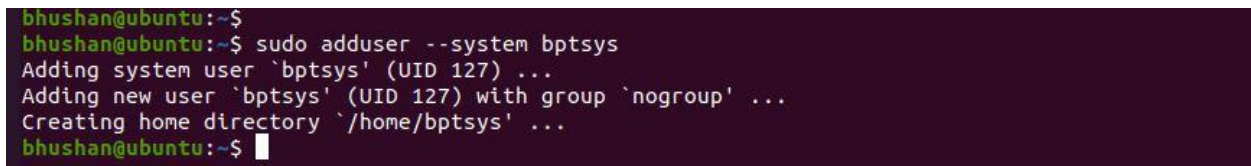
sudo cat /etc/passwd | grep <username>

2) Add System user (--system)

System users are non-login user accounts used for installation processes and services. So to add a system account , use the following syntax:-

sudo adduser --system <username>
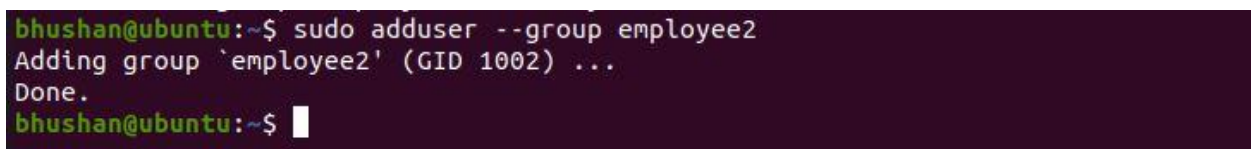
1. It will create a new system user with the first available system UID(1-999)
2. It will add the user to the nogroup group
3. It will create a home directory for the user (/home/<username>)

Note:- System user appends to the /etc/passwd file.

3) Add Group (--group)

Adduser command with the --group option adds a new group to the system. For Example

sudo adduser --group <group name>

If we use --system and --group then it creates a system user and group with the same name. For Example,

sudo adduser --group --system <name>

```
bhushan@ubuntu:~$ sudo adduser --system  --group employee3
Adding system user `employee3' (UID 128) ...
Adding new group `employee3' (GID 134) ...
Adding new user `employee3' (UID 128) with group `employee3' ...
Creating home directory `/home/employee3' ...
bhushan@ubuntu:~$
```

Note:- The UID and GID are between 1 and 999, indicating it is a system user and group.

4) Add user password option (--disabled)

If we want to override default password rules set in /etc/adduser.conf. So to avoid the setting a password during user creation then:

<center>**sudo adduser --disabled -login <username>**</center>

```
bhushan@ubuntu:~$ sudo adduser --disabled-login employee4
Adding user `employee4' ...
Adding new group `employee4' (1003) ...
Adding new user `employee4' (1002) with group `employee4' ...
Creating home directory `/home/employee4' ...
Copying files from `/etc/skel' ...
Changing the user information for employee4
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$
```

Note:- This command does not request setting up a password and disables logging into the account until using the passwd command. To disable password login for the user then,

<center>**sudo --disabled-password <username>**</center>

```
bhushan@ubuntu:~$ sudo adduser --disabled-password employee5
Adding user `employee5' ...
Adding new group `employee5' (1004) ...
Adding new user `employee5' (1003) with group `employee5' ...
Creating home directory `/home/employee5' ...
Copying files from `/etc/skel' ...
Changing the user information for employee5
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$
```

Note:- To disable password login, use SSH For Example to access the system with root account

5) Add a user with shell (--shell)

To set the default login shell for the user, we use --shell option and provide the path .

<center>**sudo adduser --shell=<shell path> <username>**</center>

Note:- Provided shell overrides the default options and becomes the login shell for the given user.

```
bhushan@ubuntu:~$ sudo adduser --shell=/bin/fish employee6
Adding user `employee6' ...
Adding new group `employee6' (1005) ...
Adding new user `employee6' (1004) with group `employee6' ...
useradd: Warning: missing or non-executable shell '/bin/fish'
Creating home directory `/home/employee6' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for employee6
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$ sudo cat /etc/passwd | grep employee6
employee6:x:1004:1005:,,,:/home/employee6:/bin/fish
bhushan@ubuntu:~$ 
```

6) Add user home option (--home)

To add a user and set a custom home directory path then

<div align="center">

sudo adduser --home <directory> <username>

</div>

```
bhushan@ubuntu:~$ sudo adduser --home /home/bpt employee7
Adding user `employee7' ...
Adding new group `employee7' (1006) ...
Adding new user `employee7' (1005) with group `employee7' ...
Creating home directory `/home/bpt' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for employee7
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n]
bhushan@ubuntu:~$ sudo cat /etc/passwd | grep employee7
employee7:x:1005:1006:,,,:/home/bpt:/bin/bash
bhushan@ubuntu:~$ 
```

Note:- We use this option to have different users share a home directory location. If we want tot create a user without creating home directory then

<div align="center">

sudo adduser --no-create-home <username>

</div>

Note :- This Command avoids creating the home directory for the user, which is suitable for system users.

```
bhushan@ubuntu:~$ sudo adduser --no-create-home employee8
Adding user `employee8' ...
Adding new group `employee8' (1007) ...
Adding new user `employee8' (1006) with group `employee8' ...
Not creating home directory `/home/employee8'.
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for employee8
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$ 
```

7) Adduser to verbose mode (--debug)

If we want to add user or group in verbose mode then

<div align="center">

sudo adduser --debug <username>

</div>

```
bhushan@ubuntu:~$ sudo addgroup employee1 --debug
addgroup: The group `employee1' already exists.
bhushan@ubuntu:~$ sudo adduser employee9 --debug
Adding user `employee9' ...
Selecting UID from range 1000 to 59999 ...
Selecting GID from range 1000 to 59999 ...
Adding new group `employee9' (1008) ...
/sbin/groupadd -g 1008 employee9
Adding new user `employee9' (1007) with group `employee9' ...
/sbin/useradd -d /home/employee9 -g employee9 -s /bin/bash -u 1007 employee9
Creating home directory `/home/employee9' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
/bin/chfn employee9
Changing the user information for employee9
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$
```

Note :- The verbose option specifies that you want to display detailed processing information on your screen.

8) Adduser with lastuid (--lastuid)

This option overrides the first uid in the range that uid is chosen from then

<div align="center">

sudo adduser --lastuid <uid> <username>

</div>

```
bhushan@ubuntu:~$ sudo adduser --lastuid 2323 employee10
Adding user `employee10' ...
Adding new group `employee10' (1009) ...
Adding new user `employee10' (1008) with group `employee10' ...
Creating home directory `/home/employee10' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for employee10
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$
```

9) Adduser with version (--version)

This option displays the information regarding the version of the useradd command we are using in our system.

adduser --version

```
bhushan@ubuntu:~$ adduser --version
adduser version 3.118ubuntu2

Adds a user or group to the system.

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                   Ted Hajek <tedhajek@boombox.micro.umn.edu>

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bhushan@ubuntu:~$
```

Difference between adduser and useradd command in linux

1) Feature
Adduser creates the user and sets up the account home folder and account settings.
Useradd just creates the user.

2) Create Directory
Adduser creates a user directory in the home (/home/user) automatically.
Useradd does not create a user directory in the home if not specified with -m.

```
bhushan@ubuntu:~$ sudo adduser u1
[sudo] password for bhushan:
Adding user `u1' ...
Adding new group `u1' (1010) ...
Adding new user `u1' (1009) with group `u1' ...
Creating home directory `/home/u1' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for u1
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y
bhushan@ubuntu:~$ sudo useradd u2
bhushan@ubuntu:~$ sudo cat /etc/passwd | grep u1
u1:x:1009:1010:,,,:/home/u1:/bin/bash
bhushan@ubuntu:~$ sudo cat /etc/passwd | grep u2
u2:x:1010:1011::/home/u2:/bin/sh
bhushan@ubuntu:~$
```