

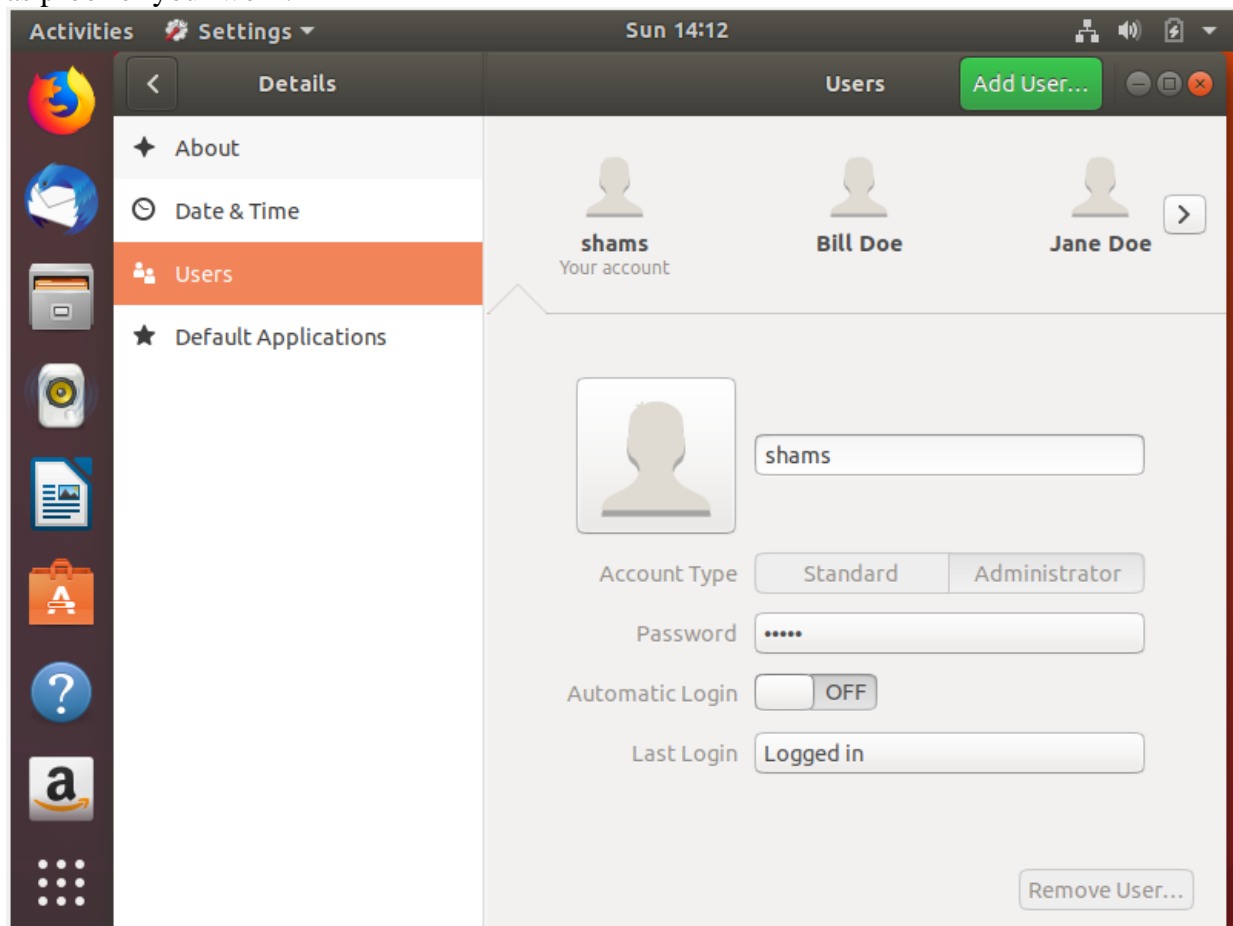
## Assignment

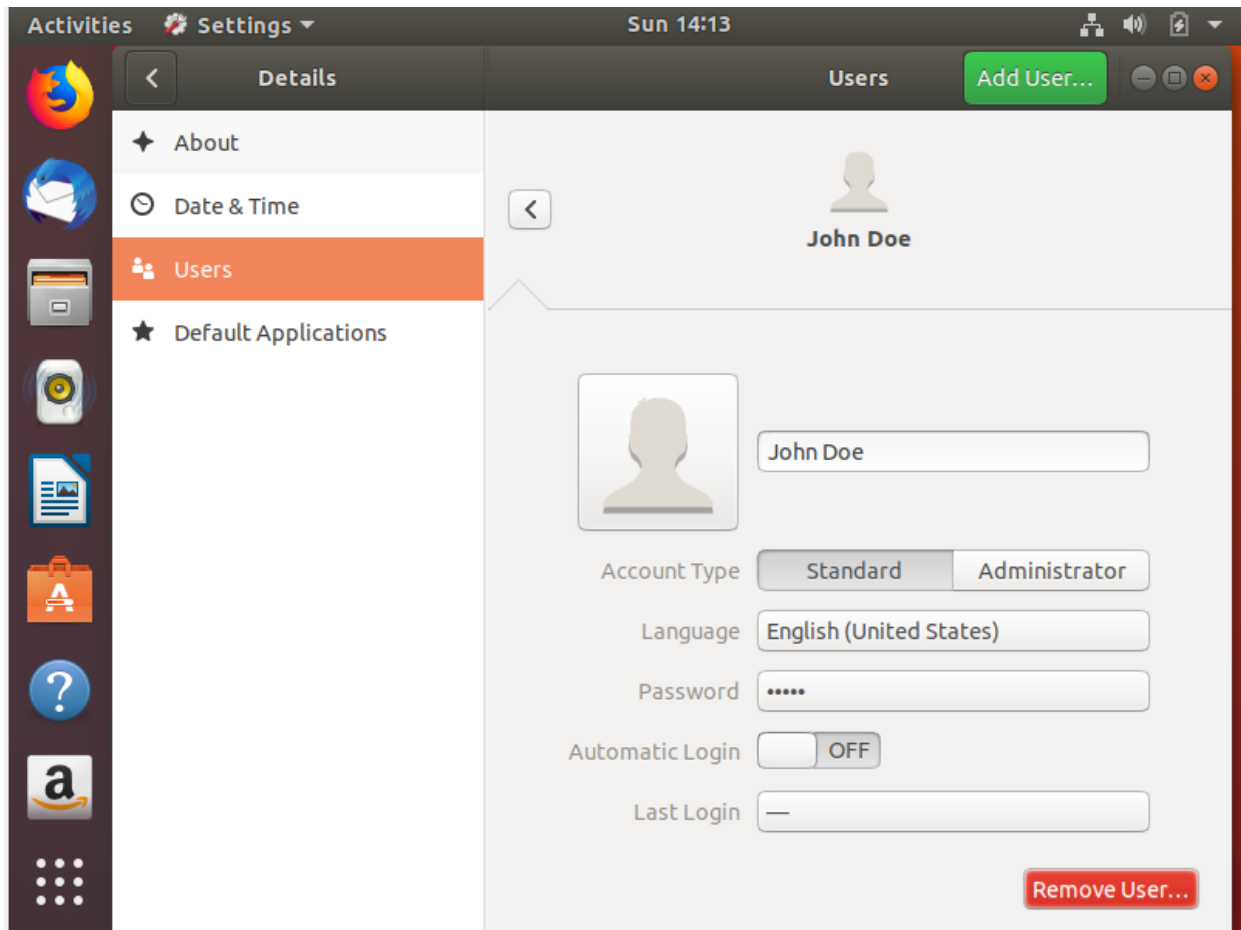
### Activity

In the following questions, the assumption is that you have the superuser access.

### Question

Using the Linux System Setting Icon, select User Account to create three Linux login ids for three users (make them up). Don't forget to put a password on each user. When you have completed the task, take a screenshot of the GUI display with the three ids listed on the GUI box as proof of your work.

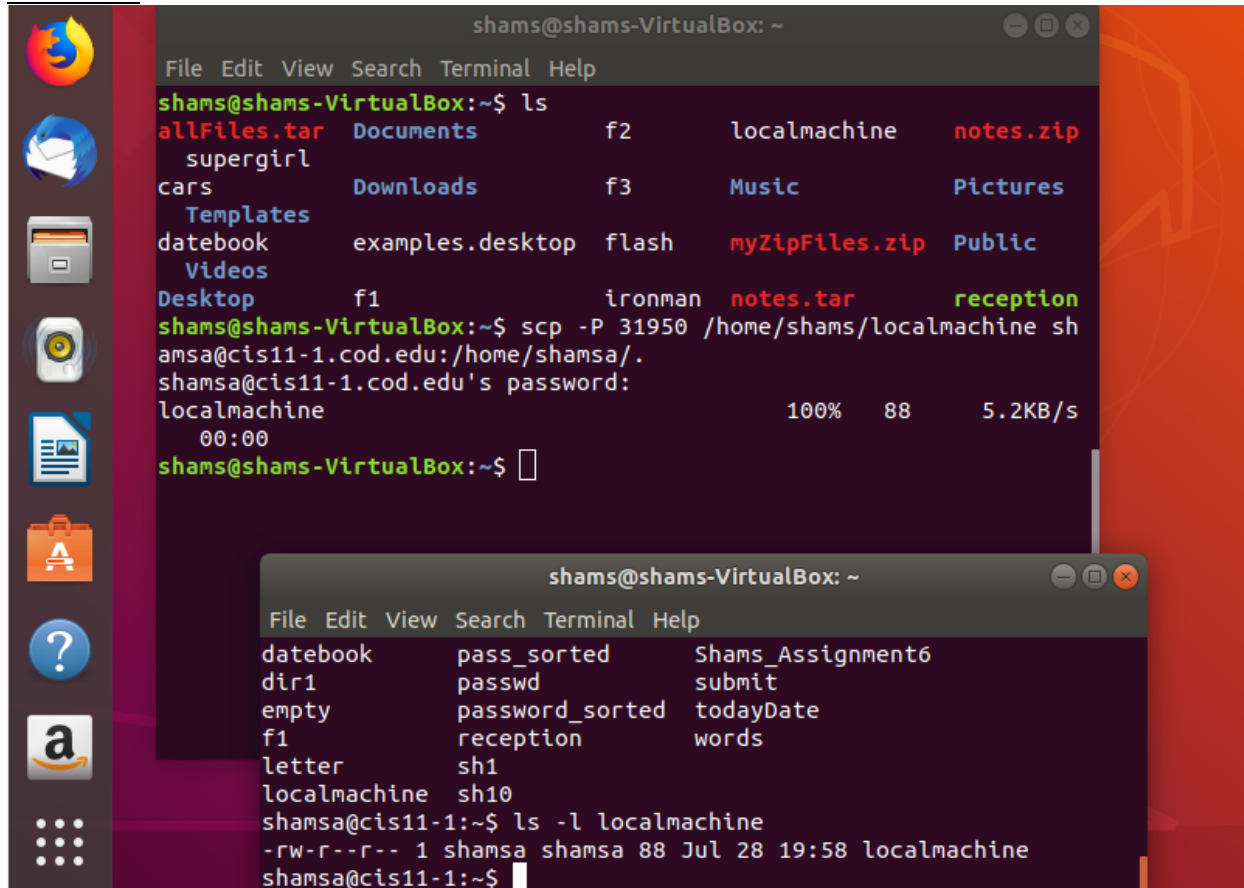




```
colord:x:117:123:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/n
ologin
hplip:x:118:7:HPLIP system user,,,:/var/run/hplip:/bin/false
geoclue:x:119:124::/var/lib/geoclue:/usr/sbin/nologin
gnome-initial-setup:x:120:65534::/run/gnome-initial-setup:/bin/false
gdm:x:121:125:Gnome Display Manager:/var/lib/gdm3:/bin/false
shams:x:1000:1000:shams,,,:/home/shams:/bin/bash
user1:x:1001:1001:Jane Doe,,,:/home/user1:/bin/bash
user2:x:1002:1002:John Doe,,,:/home/user2:/bin/bash
user3:x:1003:1003:Bill Doe,,,:/home/user3:/bin/bash
shams@shams-VirtualBox:~$
```

**Question**

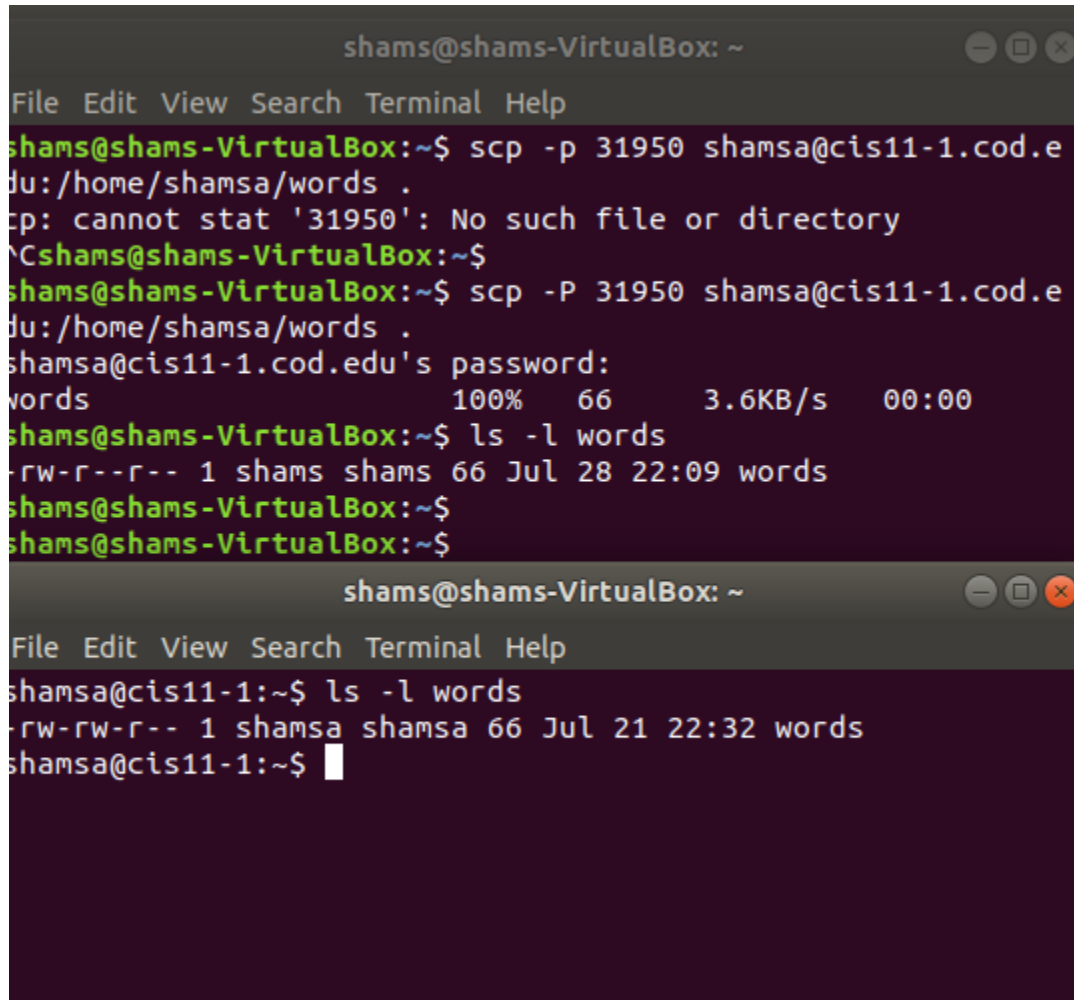
Demonstrate how to transfer/upload a file from your local Linux server to server cis11-1.cod.edu.



```
shams@shams-VirtualBox: ~  
File Edit View Search Terminal Help  
shams@shams-VirtualBox:~$ ls  
allFiles.tar Documents f2 localmachine notes.zip  
supergirl  
cars Downloads f3 Music Pictures  
Templates  
datebook examples.desktop flash myZipFiles.zip Public  
Videos  
Desktop f1 ironman notes.tar reception  
shams@shams-VirtualBox:~$ scp -P 31950 /home/shams/localmachine shamsa@cis11-1.cod.edu:/home/shamsa/.  
shamsa@cis11-1.cod.edu's password:  
localmachine 100% 88 5.2KB/s  
00:00  
shams@shams-VirtualBox:~$  
  
shams@shams-VirtualBox: ~  
File Edit View Search Terminal Help  
datebook pass_sorted Shams_Assignment6  
dir1 passwd submit  
empty password_sorted todayDate  
f1 reception words  
letter sh1  
localmachine sh10  
shamsa@cis11-1:~$ ls -l localmachine  
-rw-r--r-- 1 shamsa shamsa 88 Jul 28 19:58 localmachine  
shamsa@cis11-1:~$
```

**Question**

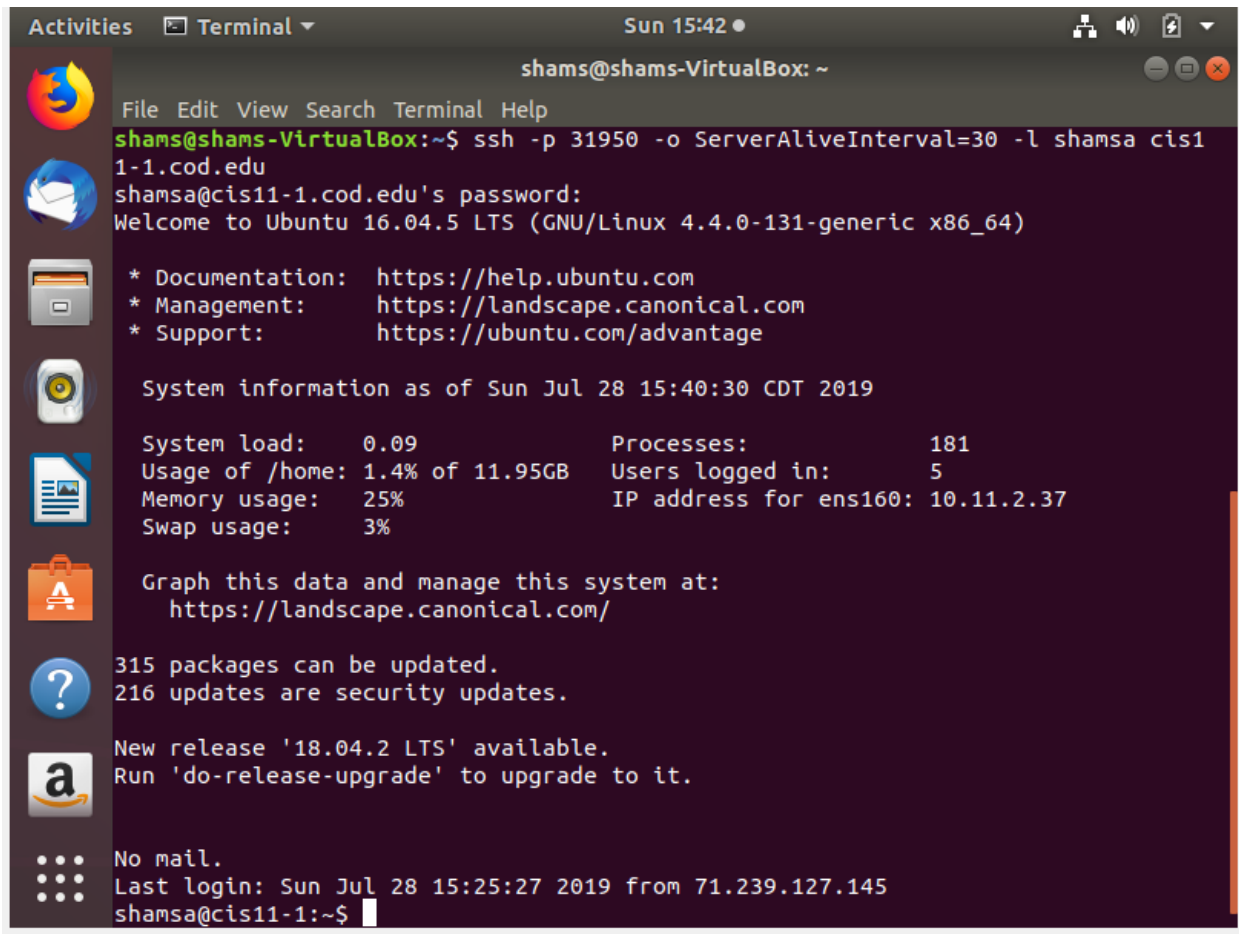
Demonstrate how to download a file from server cis11-1.cod.edu to your local Linux server.



```
shams@shams-VirtualBox: ~  
File Edit View Search Terminal Help  
shams@shams-VirtualBox:~$ scp -p 31950 shamsa@cis11-1.cod.e  
du:/home/shamsa/words .  
scp: cannot stat '31950': No such file or directory  
^Cshams@shams-VirtualBox:~$  
shams@shams-VirtualBox:~$ scp -P 31950 shamsa@cis11-1.cod.e  
du:/home/shamsa/words .  
shamsa@cis11-1.cod.edu's password:  
words 100% 66 3.6KB/s 00:00  
shams@shams-VirtualBox:~$ ls -l words  
-rw-r--r-- 1 shams shams 66 Jul 28 22:09 words  
shams@shams-VirtualBox:~$  
shams@shams-VirtualBox:~$  
shams@shams-VirtualBox: ~  
File Edit View Search Terminal Help  
shamsa@cis11-1:~$ ls -l words  
-rw-rw-r-- 1 shamsa shamsa 66 Jul 21 22:32 words  
shamsa@cis11-1:~$
```

## Question

Demonstrate how to remote login from your local Linux server to server cis11-1.cod.edu.



The image shows a terminal window titled "shams@shams-VirtualBox: ~" with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Sun 15:42). The terminal displays the command `ssh -p 31950 -o ServerAliveInterval=30 -l shamsa cis11-1-1.cod.edu` and the subsequent login process. The user is prompted for a password and then greeted with the Ubuntu 16.04.5 LTS login banner. The banner includes documentation, management, and support links, system information (Sun Jul 28 15:40:30 CDT 2019), system load, usage, memory, and swap statistics, and a list of updates (315 packages can be updated, 216 are security updates). It also mentions a new release '18.04.2 LTS' is available and provides a link to manage the system at <https://landscape.canonical.com/>. The terminal ends with the prompt `shamsa@cis11-1:~$`.

```
shams@shams-VirtualBox: ~
File Edit View Search Terminal Help
shams@shams-VirtualBox:~$ ssh -p 31950 -o ServerAliveInterval=30 -l shamsa cis1
1-1.cod.edu
shamsa@cis11-1.cod.edu's password:
Welcome to Ubuntu 16.04.5 LTS (GNU/Linux 4.4.0-131-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Jul 28 15:40:30 CDT 2019

System load:  0.09                       Processes:    181
Usage of /home: 1.4% of 11.95GB          Users logged in: 5
Memory usage:  25%                       IP address for ens160: 10.11.2.37
Swap usage:    3%

Graph this data and manage this system at:
https://landscape.canonical.com/

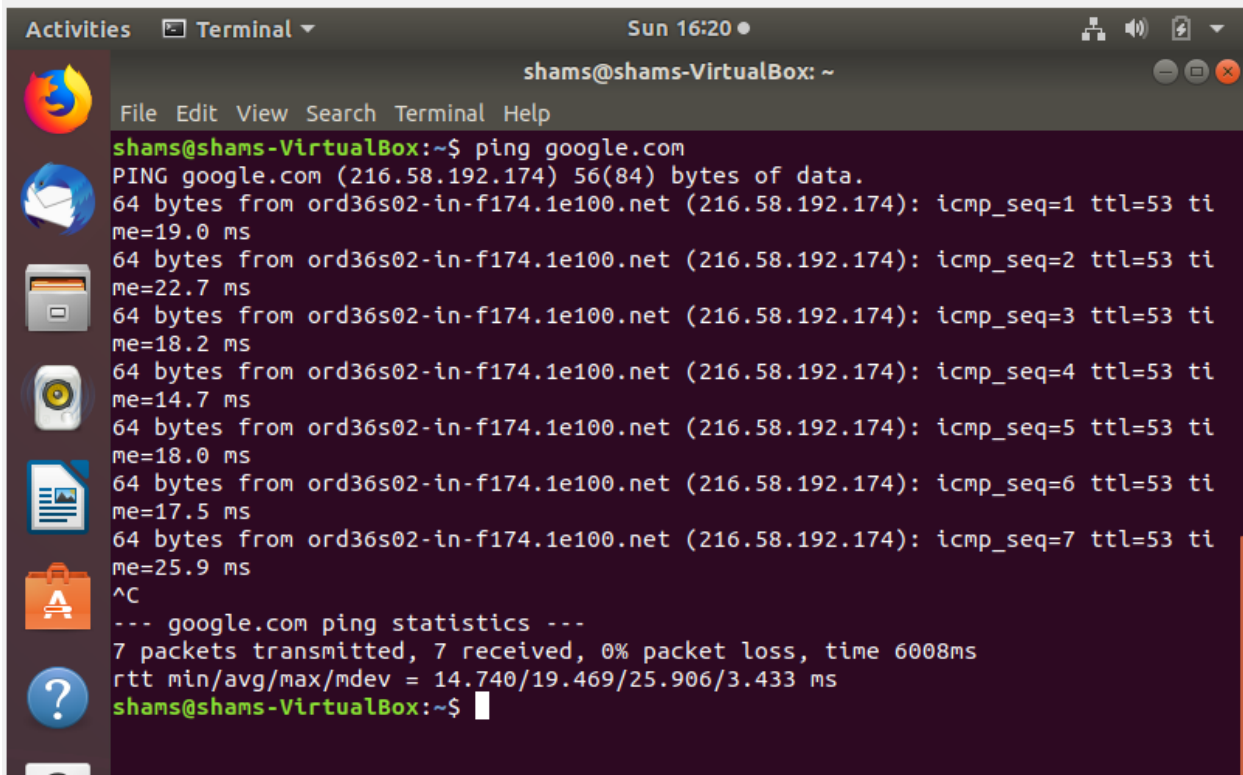
315 packages can be updated.
216 updates are security updates.

New release '18.04.2 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

No mail.
Last login: Sun Jul 28 15:25:27 2019 from 71.239.127.145
shamsa@cis11-1:~$
```

### Question

Demonstrate the use of Linux *ping* command. Select a site to exhibit your test results.



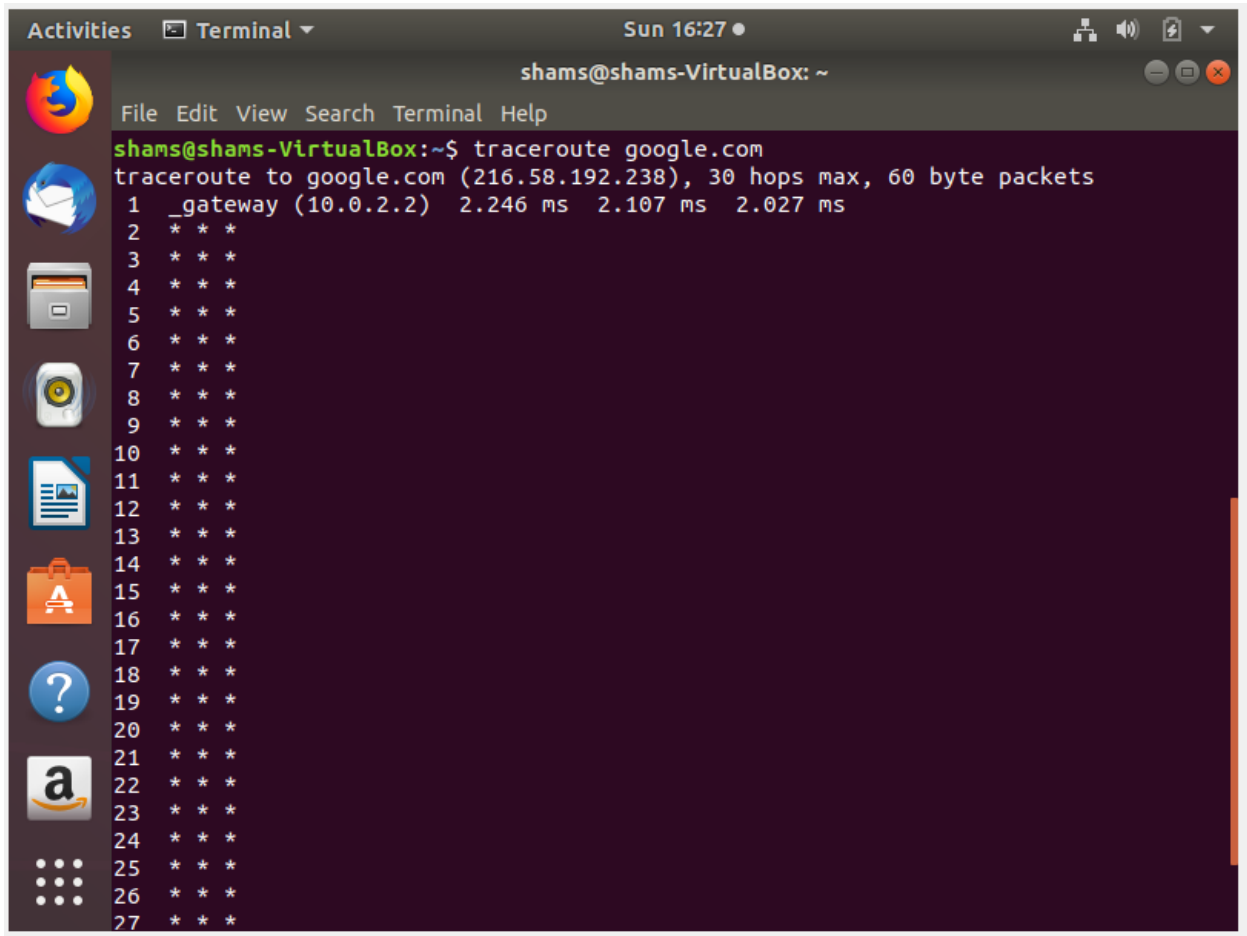
```
shams@shams-VirtualBox: ~  
File Edit View Search Terminal Help  
shams@shams-VirtualBox:~$ ping google.com  
PING google.com (216.58.192.174) 56(84) bytes of data.  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=1 ttl=53 time=19.0 ms  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=2 ttl=53 time=22.7 ms  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=3 ttl=53 time=18.2 ms  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=4 ttl=53 time=14.7 ms  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=5 ttl=53 time=18.0 ms  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=6 ttl=53 time=17.5 ms  
64 bytes from ord36s02-in-f174.1e100.net (216.58.192.174): icmp_seq=7 ttl=53 time=25.9 ms  
^C  
--- google.com ping statistics ---  
7 packets transmitted, 7 received, 0% packet loss, time 6008ms  
rtt min/avg/max/mdev = 14.740/19.469/25.906/3.433 ms  
shams@shams-VirtualBox:~$
```

**Question #7**

Demonstrate the use of Linux *traceroute* command. Select a site to exhibit your test result. Explain briefly what the display implies.

**Answer:** Traceroute command traces the path to the destination site. It gives the details about different routers in the path to the destination.

**Note:** Eventhough I installed traceroute it is not giving me the details of different routers in the path to the destination.



The screenshot shows a terminal window titled "shams@shams-VirtualBox: ~" with a menu bar (File, Edit, View, Search, Terminal, Help). The user has executed the command `traceroute google.com`. The output shows the path to google.com (216.58.192.238) with 30 hops max and 60 byte packets. The first hop is the gateway (10.0.2.2) with times 2.246 ms, 2.107 ms, and 2.027 ms. Subsequent hops (2-27) show three asterisks (\*\*\*) indicating that the traceroute did not receive responses from those hops.

```
shams@shams-VirtualBox:~$ traceroute google.com
traceroute to google.com (216.58.192.238), 30 hops max, 60 byte packets
 1 _gateway (10.0.2.2)  2.246 ms  2.107 ms  2.027 ms
 2 * * *
 3 * * *
 4 * * *
 5 * * *
 6 * * *
 7 * * *
 8 * * *
 9 * * *
10 * * *
11 * * *
12 * * *
13 * * *
14 * * *
15 * * *
16 * * *
17 * * *
18 * * *
19 * * *
20 * * *
21 * * *
22 * * *
23 * * *
24 * * *
25 * * *
26 * * *
27 * * *
```

**Question**

Using the Linux *useradd* command, add the following two users to your local server:

id=ironman, owner=Robert Dowey, shell=bash

id=supergirl, owner=Melissa Benoist, shell=bash

After you have completed adding the above users, execute the following command:

tail -5 /etc/passwd

ls /home

```
root@shams-VirtualBox:~# useradd -m ironman -c "Robert Dowey" -s /bin/bash
root@shams-VirtualBox:~# ls
root@shams-VirtualBox:~# useradd -m supergirl -c "Melissa Benoist" -s /bin/bash
root@shams-VirtualBox:~# tail -5 /etc/passwd
user1:x:1001:1001:Jane Doe,,,:/home/user1:/bin/bash
user2:x:1002:1002:John Doe,,,:/home/user2:/bin/bash
user3:x:1003:1003:Bill Doe,,,:/home/user3:/bin/bash
ironman:x:1004:1004:Robert Dowey:/home/ironman:/bin/bash
supergirl:x:1005:1005:Melissa Benoist:/home/supergirl:/bin/bash
root@shams-VirtualBox:~# ls /home
ironman shams supergirl user1 user2 user3
root@shams-VirtualBox:~#
```

**Question**

Using the Linux *userdel* command, remove user batman from your local server.

After you have completed removing the user, execute the following command:

tail -5 /etc/passwd

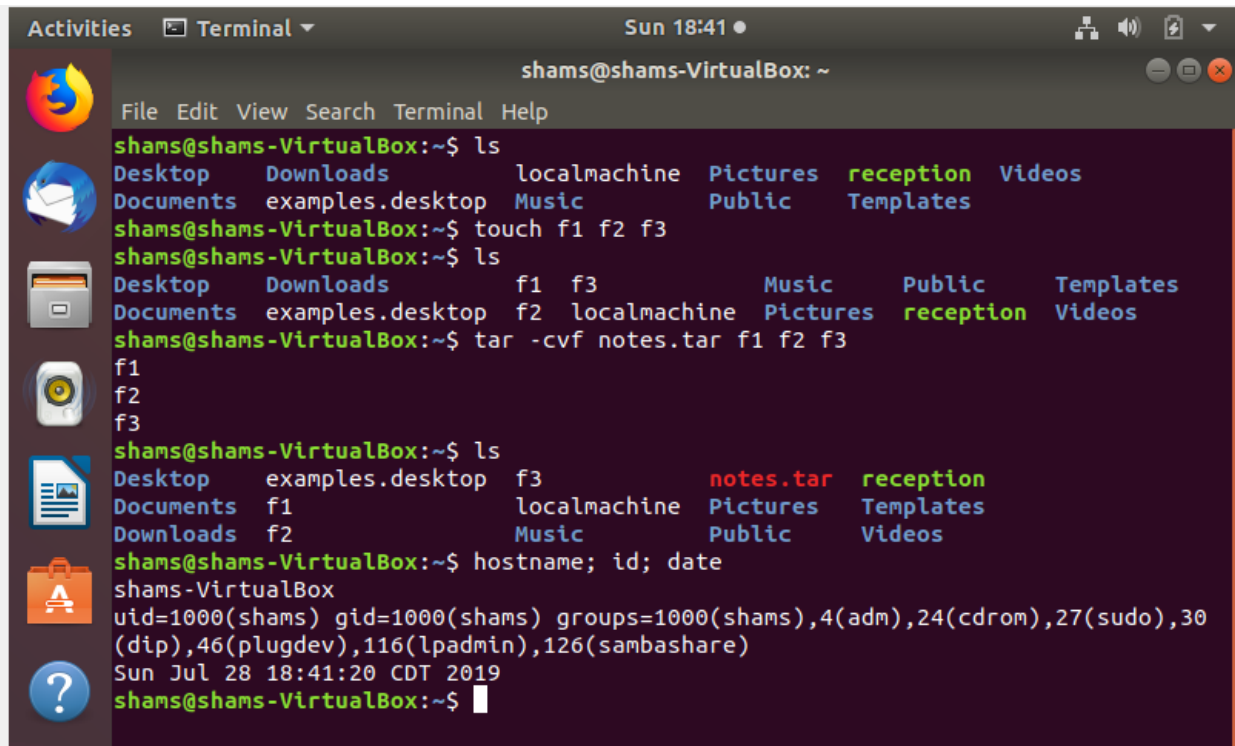
ls /home

```
root@shams-VirtualBox:~# ls /home
ironman shams supergirl user1 user2 user3
root@shams-VirtualBox:~# userdel -r ironman
userdel: ironman mail spool (/var/mail/ironman) not found
root@shams-VirtualBox:~# ls /home
shams supergirl user1 user2 user3
root@shams-VirtualBox:~# tail -5 /etc/passwd
shams:x:1000:1000:shams,,,:/home/shams:/bin/bash
user1:x:1001:1001:Jane Doe,,,:/home/user1:/bin/bash
user2:x:1002:1002:John Doe,,,:/home/user2:/bin/bash
user3:x:1003:1003:Bill Doe,,,:/home/user3:/bin/bash
supergirl:x:1005:1005:Melissa Benoist:/home/supergirl:/bin/bash
root@shams-VirtualBox:~#
```



### Question

Create three empty files and call them f1, f2, and f3. Using the Linux *tar* command, compress all the three files and call the compressed file notes.tar. After you have completed the above tasks, execute the following command: *hostname; id; date*



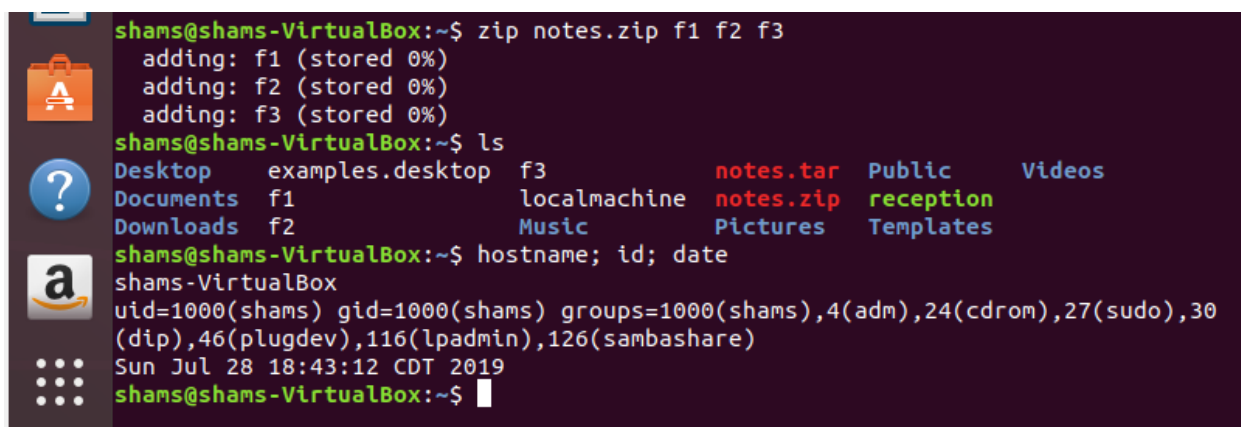
```

shams@shams-VirtualBox: ~
ls
Desktop  Downloads  localmachine  Pictures  reception  Videos
Documents examples.desktop  Music  Public  Templates
shams@shams-VirtualBox:~$ touch f1 f2 f3
shams@shams-VirtualBox:~$ ls
Desktop  Downloads  f1  f3  Music  Public  Templates
Documents examples.desktop  f2  localmachine  Pictures  reception  Videos
shams@shams-VirtualBox:~$ tar -cvf notes.tar f1 f2 f3
f1
f2
f3
shams@shams-VirtualBox:~$ ls
Desktop  examples.desktop  f3  notes.tar  reception
Documents f1  localmachine  Pictures  Templates
Downloads f2  Music  Public  Videos
shams@shams-VirtualBox:~$ hostname; id; date
shams-VirtualBox
uid=1000(shams) gid=1000(shams) groups=1000(shams),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lpadmin),126(sambashare)
Sun Jul 28 18:41:20 CDT 2019
shams@shams-VirtualBox:~$

```

### Question

Using the Linux *zip* command, compress all the three files created earlier and call the compressed file notes.zip. After you have completed the above tasks, execute the following command: *hostname; id; date*



```

shams@shams-VirtualBox:~$ zip notes.zip f1 f2 f3
adding: f1 (stored 0%)
adding: f2 (stored 0%)
adding: f3 (stored 0%)
shams@shams-VirtualBox:~$ ls
Desktop  examples.desktop  f3  notes.tar  Public  Videos
Documents f1  localmachine  notes.zip  reception
Downloads f2  Music  Pictures  Templates
shams@shams-VirtualBox:~$ hostname; id; date
shams-VirtualBox
uid=1000(shams) gid=1000(shams) groups=1000(shams),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lpadmin),126(sambashare)
Sun Jul 28 18:43:12 CDT 2019
shams@shams-VirtualBox:~$

```

### Question

On the cis11-1.cod.edu server, there exist two files called *allFiles.tar* and *myZipFiles.zip* that are located under directory /home/sheik. You are required to download these two files into your local Linux server using the *scp* command.

Demonstrate how you would uncompress these two files. After you have completed uncompressing them, execute the following command: *hostname; id; date*

```
shams@shams-VirtualBox:~$ scp -P 31950 shamsa@cis11-1.cod.edu:/home/shamsa/allFiles.tar .
shamsa@cis11-1.cod.edu's password:
allFiles.tar      100% 10KB 536.1KB/s  00:00
shams@shams-VirtualBox:~$ scp -P 31950 shamsa@cis11-1.cod.edu:/home/shamsa/myZipFiles.zip .
shamsa@cis11-1.cod.edu's password:
myZipFiles.zip    100% 1655  96.6KB/s  00:00
shams@shams-VirtualBox:~$ ls
allFiles.tar      f1          myZipFiles.zip  reception
Desktop           f2          notes.tar       Templates
Documents         f3          notes.zip       Videos
Downloads         localmachine Pictures
examples.desktop Music       Public
shams@shams-VirtualBox:~$ tar -xvf allFiles.tar
supergirl
ironman
flash
shams@shams-VirtualBox:~$ unzip myZipFiles.zip
Archive: myZipFiles.zip
  inflating: cars
  inflating: datebook
shams@shams-VirtualBox:~$ ls
```

```
shams@shams-VirtualBox:~$ tar -xvf allFiles.tar
supergirl
ironman
flash
shams@shams-VirtualBox:~$ unzip myZipFiles.zip
Archive: myZipFiles.zip
  inflating: cars
  inflating: datebook
shams@shams-VirtualBox:~$ ls
allFiles.tar  examples.desktop  localmachine  Public
cars          f1                Music         reception
datebook      f2                myZipFiles.zip  supergirl
Desktop       f3                notes.tar      Templates
Documents     flash             notes.zip      Videos
Downloads     ironman          Pictures
shams@shams-VirtualBox:~$ hostname; id; date
shams-VirtualBox
uid=1000(shams) gid=1000(shams) groups=1000(shams),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),116(lpadmin),126(sambashare)
Sun Jul 28 19:49:41 CDT 2019
shams@shams-VirtualBox:~$
```

**Question**

In the Learning Module video, the instructor has demonstrated three different Linux commands to reboot your Linux server. What are the three commands? Write the complete commands to reboot the server.

**Answer:** shutdown -r now  
reboot  
init 6