

OLD DOMINION UNIVERSITY  
CYSE 270 LINUX SYSTEM FOR CYBERSECURITY

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Assignment #14 System Admin

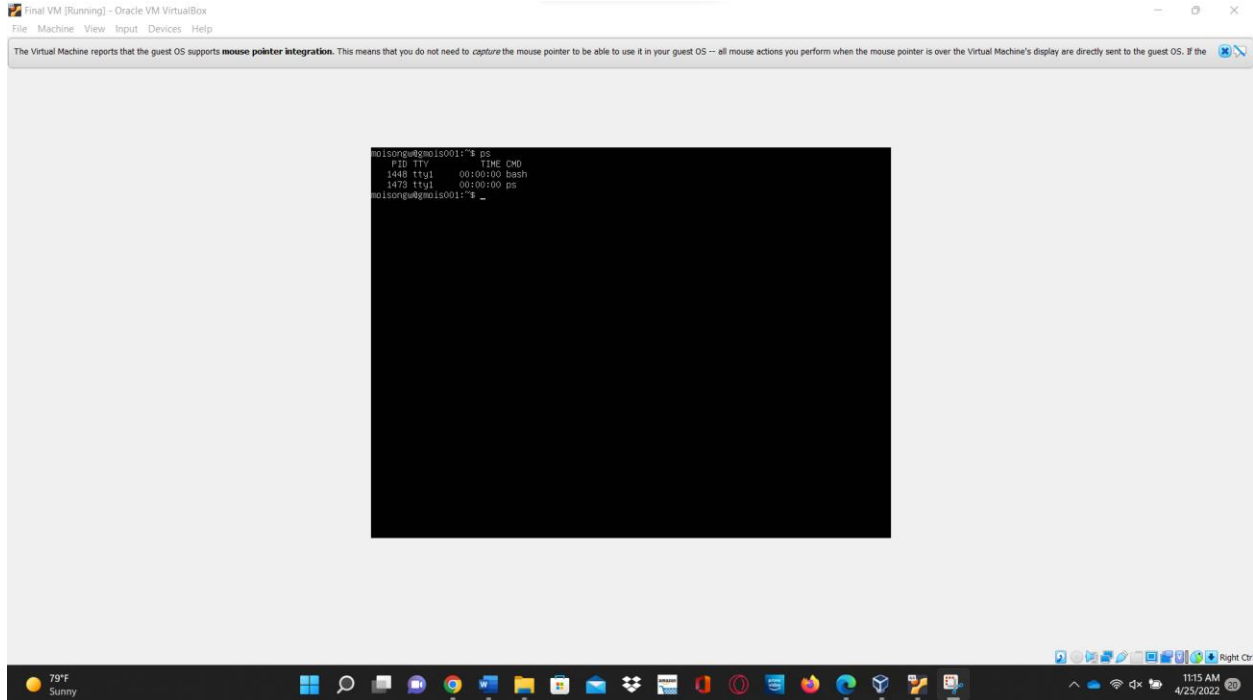
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Garrett Moison

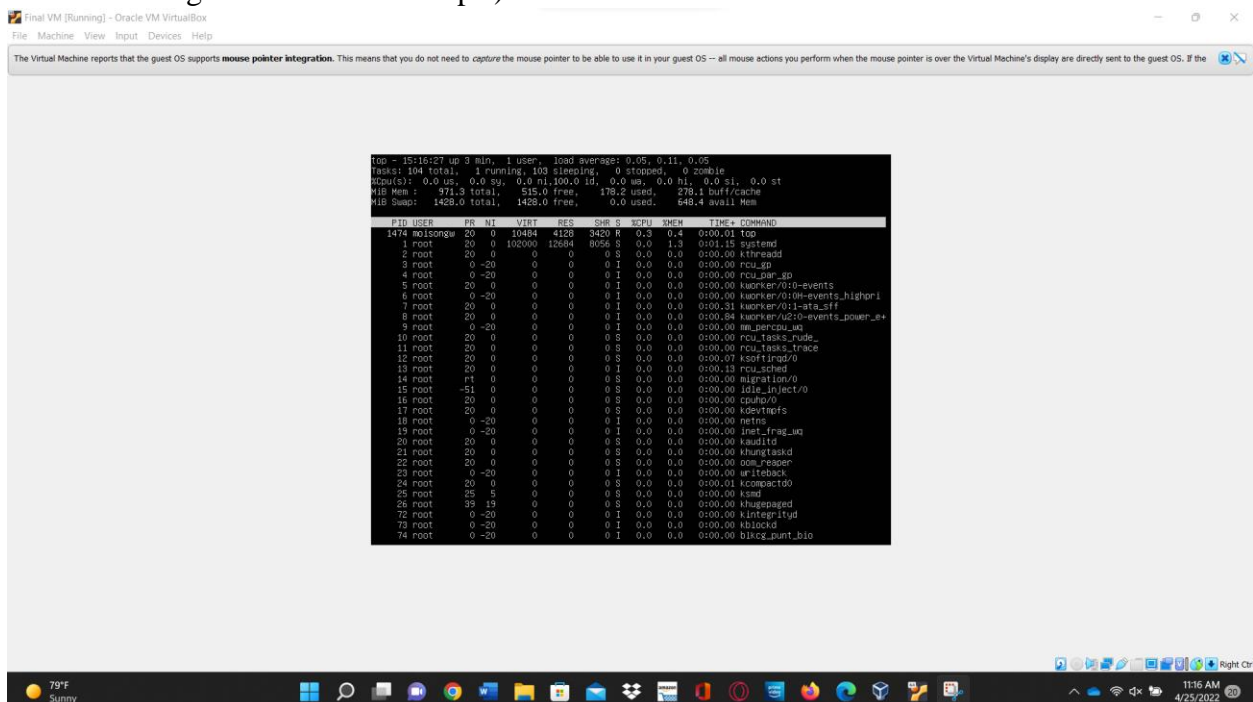
04/25/2022

# TASK A – MANAGING SYSTEM PROCESSES

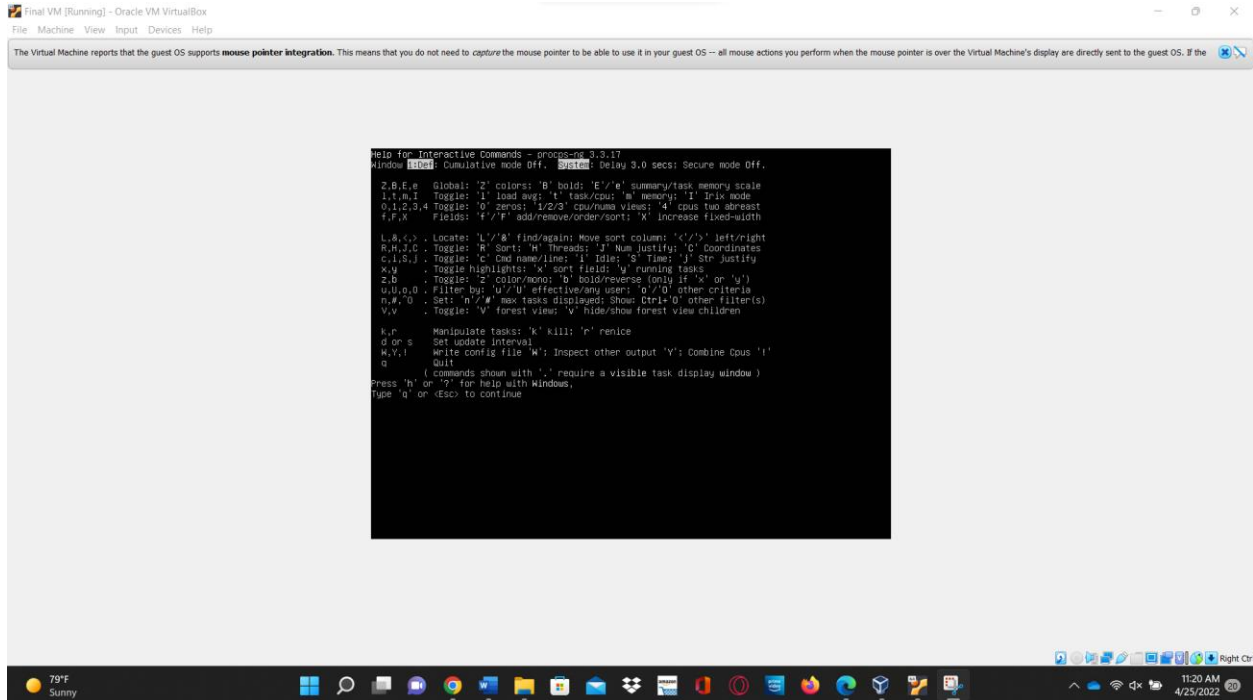
1. Open the terminal in your VM
2. List the processes that are running in the current shell.



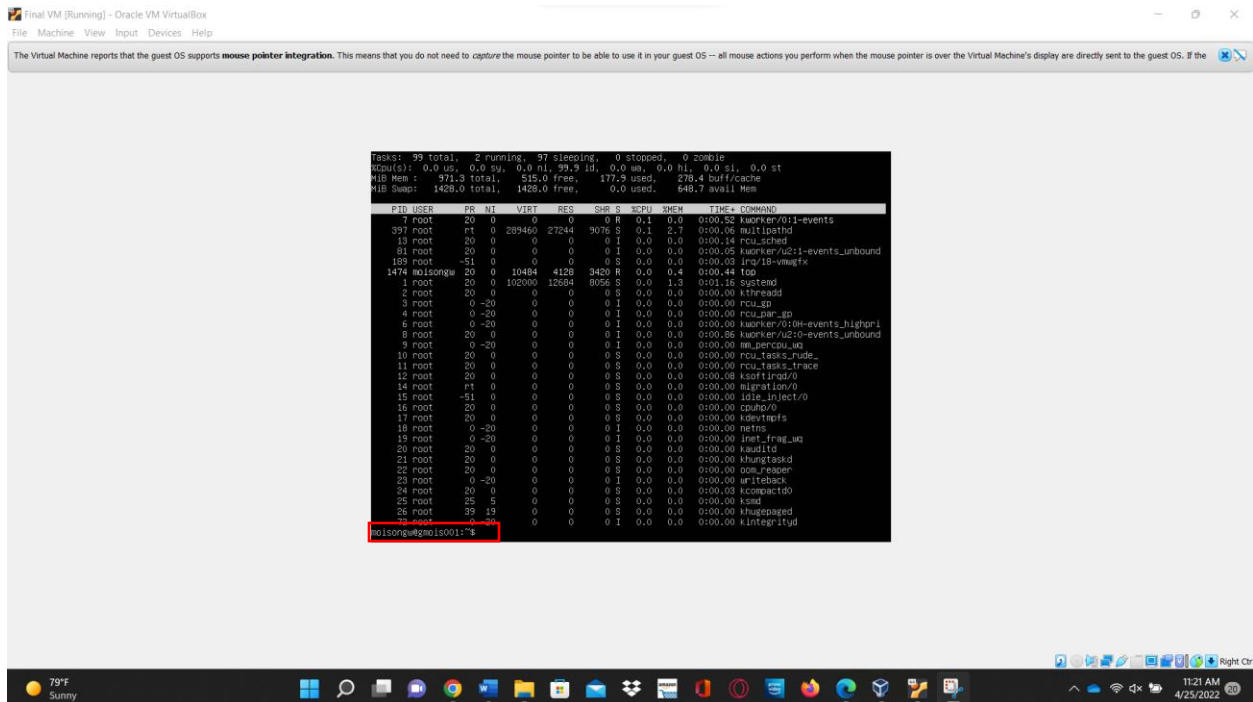
3. List all processes that are running in the current shell.
4. Display all processes that are running by using the **top** command. (Keep this command running for the next few steps.)



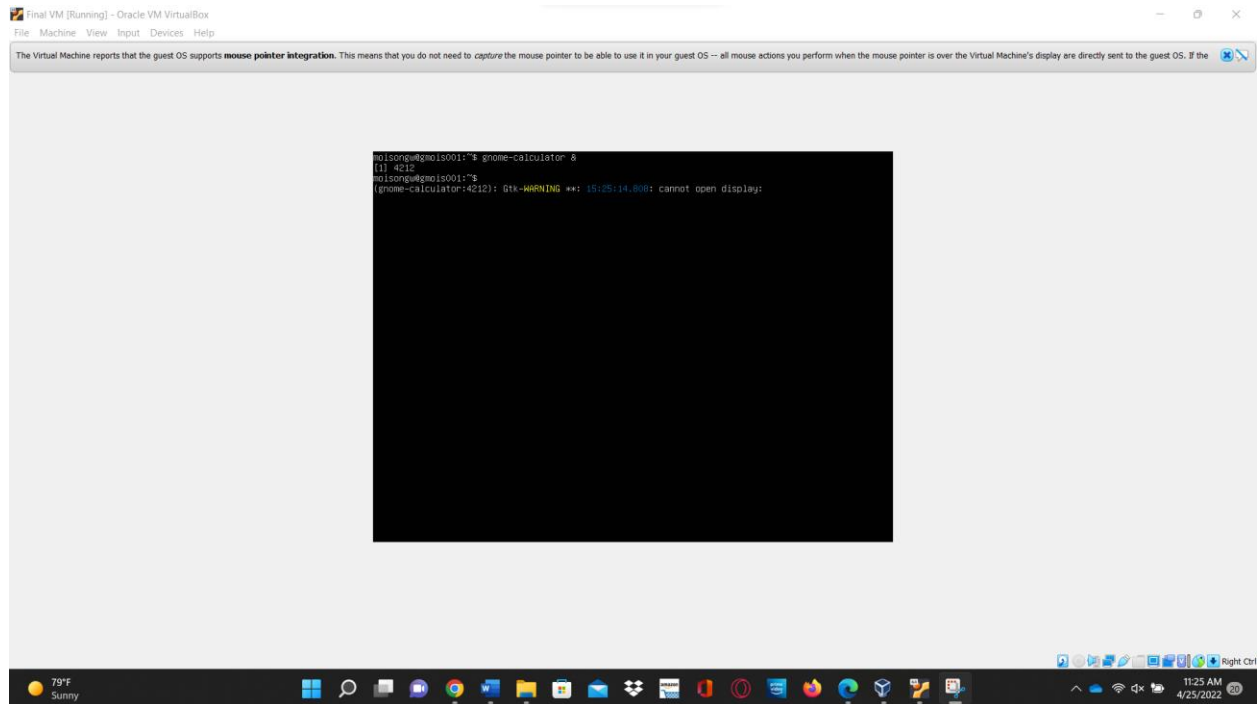
## 5. While in the top command, display the help screen.



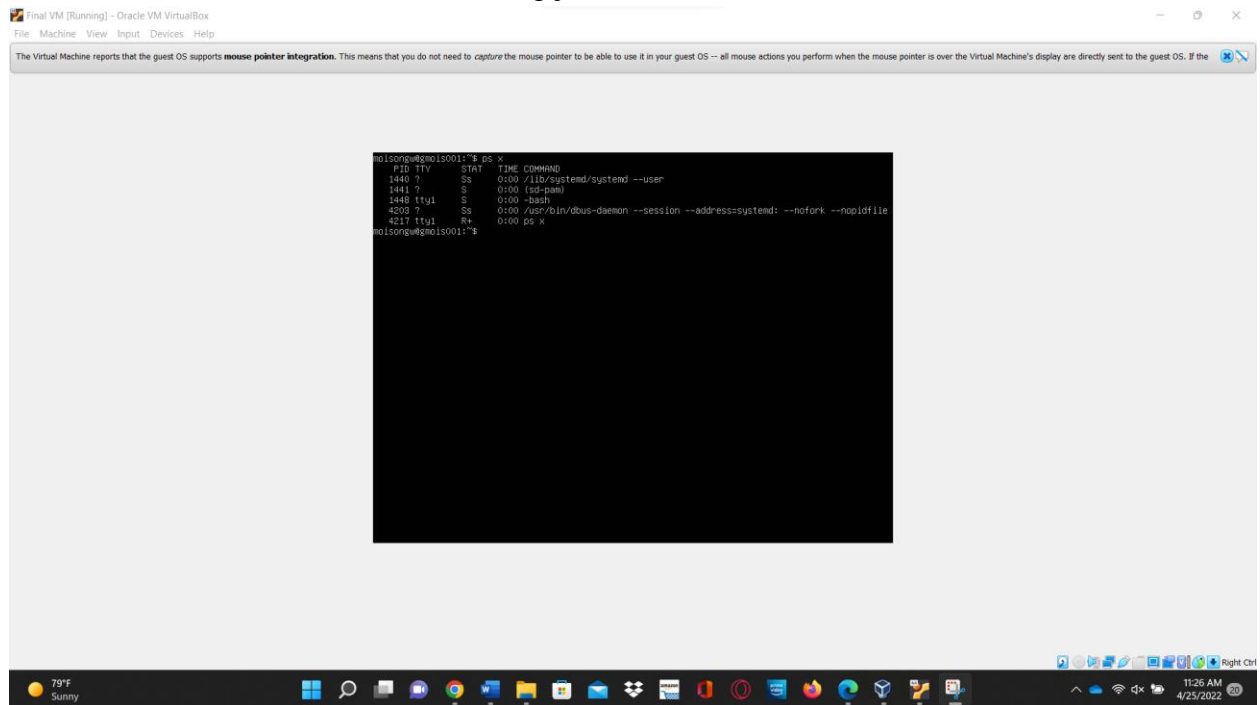
## 6. Quit the top command.



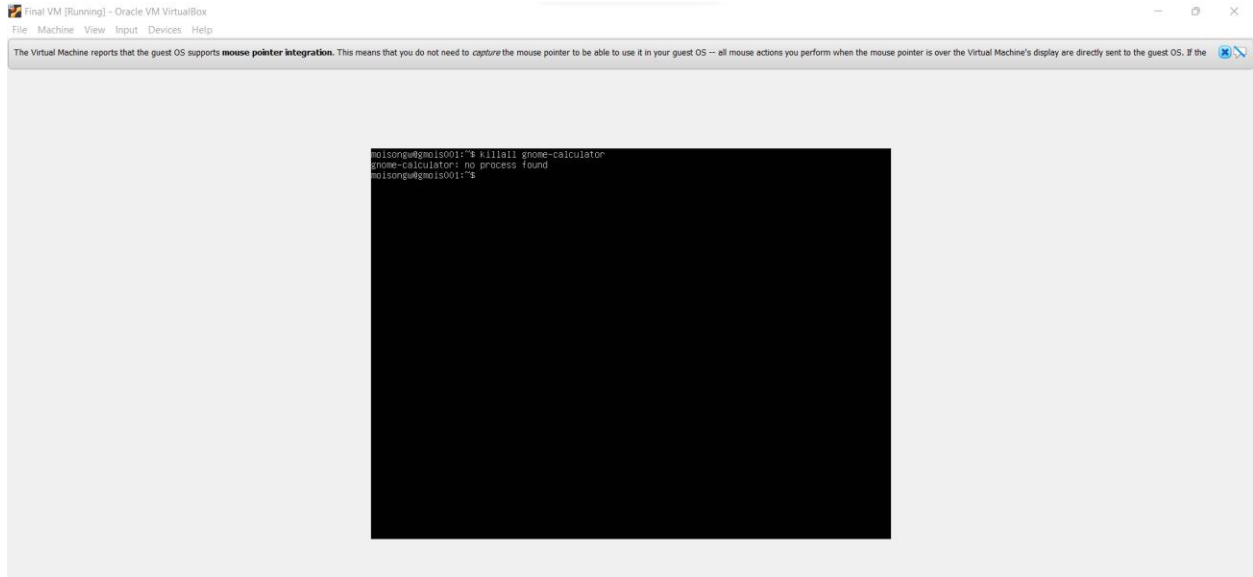
## 7. Execute the **gnome-calculator** program in the background.



## 8. In the current shell, list all running jobs.

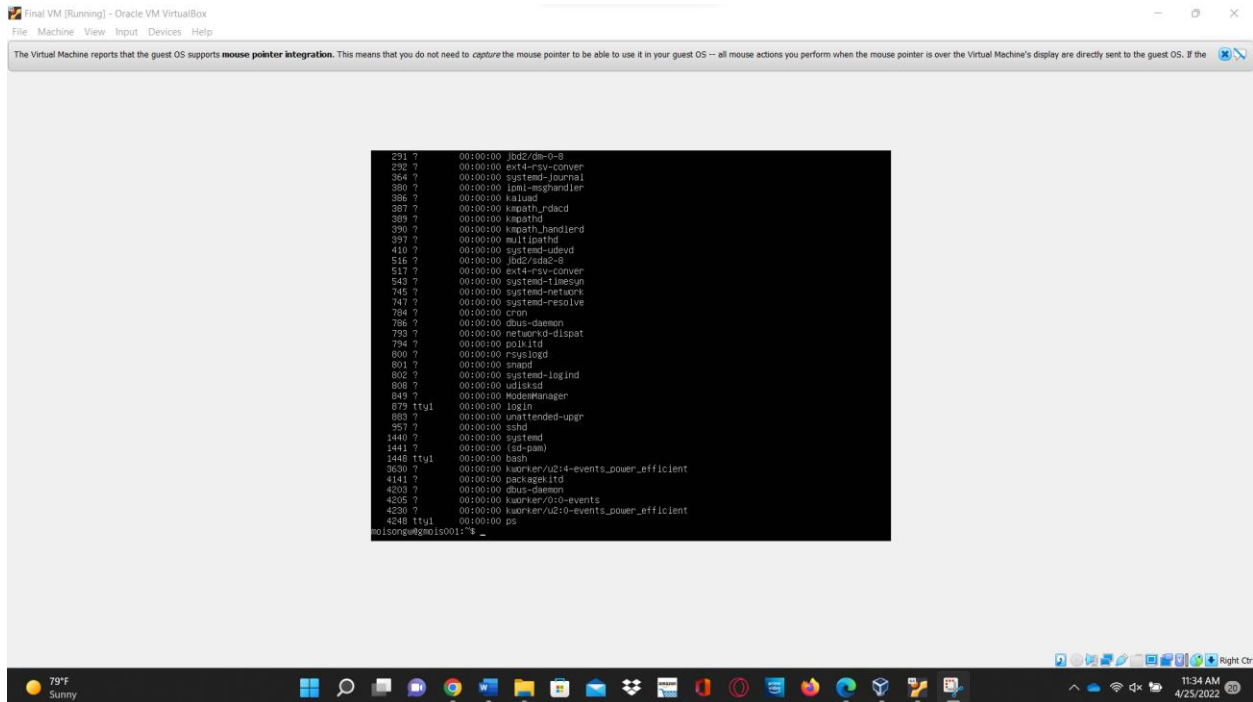


## 9. Use the **killall** command to stop (kill) all instances of the gnome-calculator program.



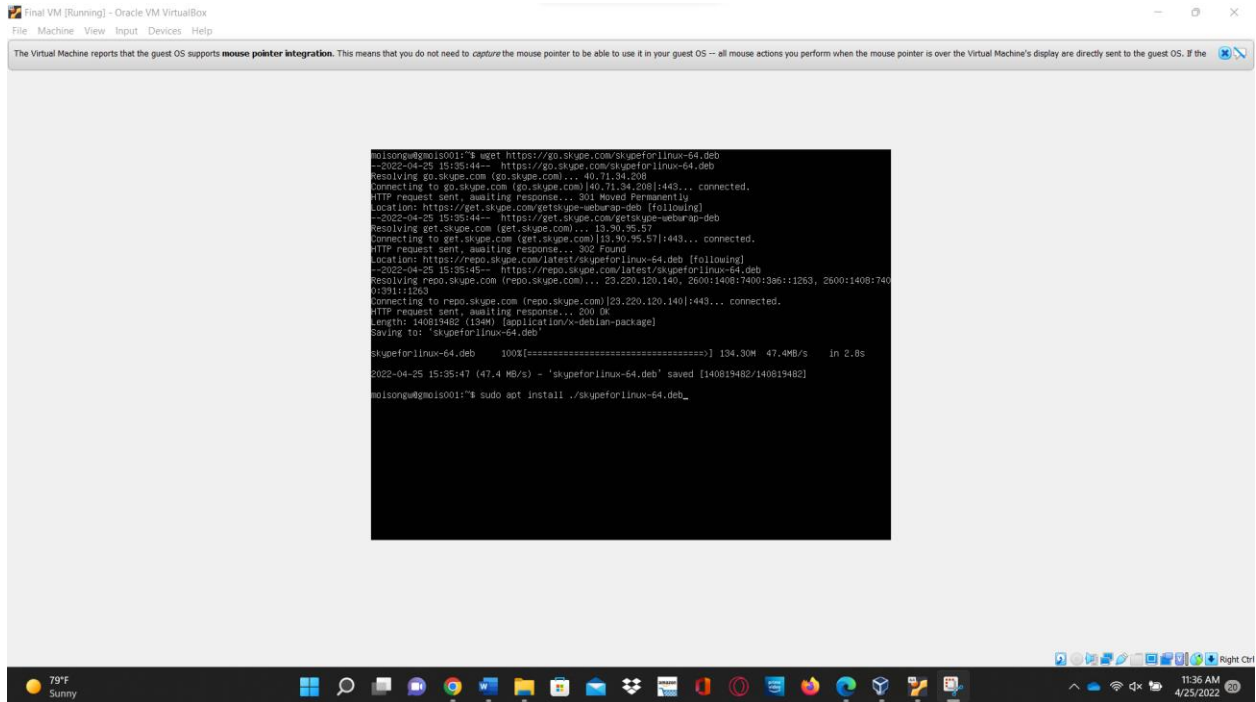
*Even after installing the gnome-calculator application on Linux, it would not start, so I could not terminate it.*

## 10. In the current shell, use the **ps** command to list all running processes.



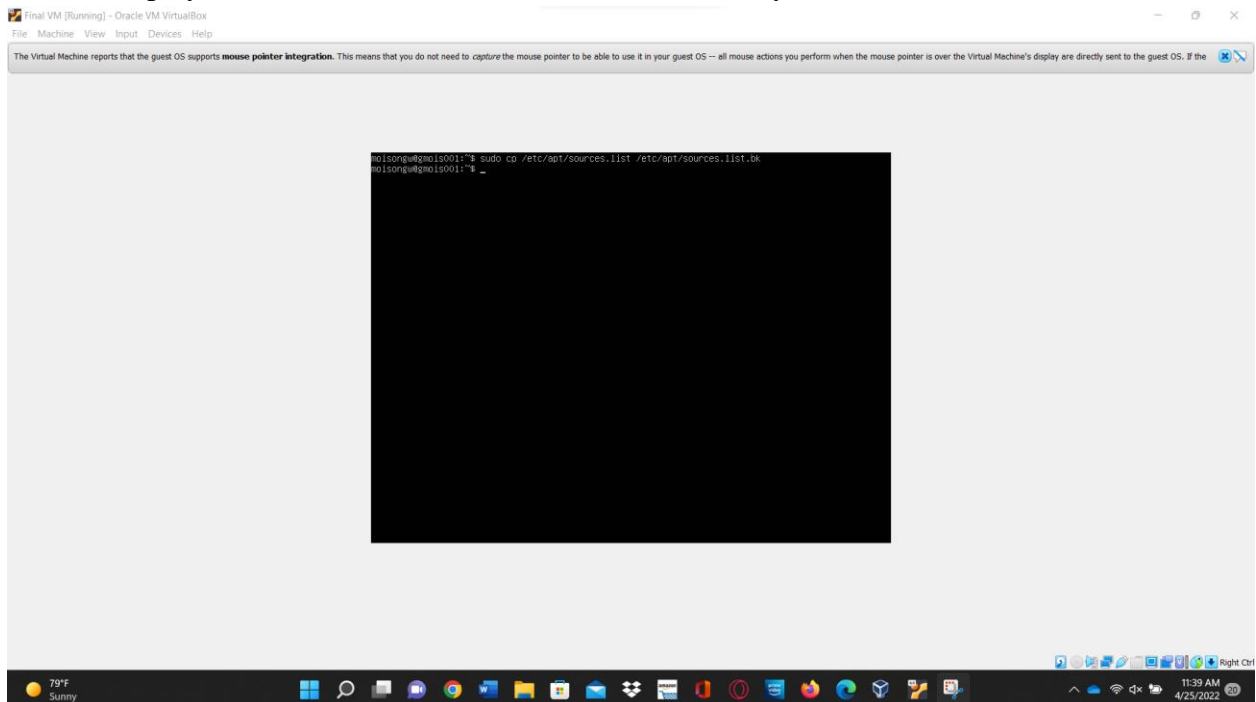
# TASK B – PACKAGE INSTALLATION

## 1. Download the installation package (deb file) for skype in Linux and install it properly.



## 2. Create a backup file for the source.list named source.list.bk in your Linux system.

Display the contents in both files, and make sure they are identical.





**ORIGINAL**

```
## distribution,
deb http://us.archive.ubuntu.com/ubuntu jammy-updates main restricted
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-updates main restricted

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
## team. Also, please note that software in universe WILL NOT receive any
## review or updates from the Ubuntu security team.
deb http://us.archive.ubuntu.com/ubuntu jammy universe
# deb-src http://us.archive.ubuntu.com/ubuntu jammy universe
deb http://us.archive.ubuntu.com/ubuntu jammy-updates universe
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-updates universe

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
## team, and may not be under a free licence. Please satisfy yourself as to
## your rights to use the software. Also, please note that software in
## multiverse WILL NOT receive any review or updates from the Ubuntu
## security team.
deb http://us.archive.ubuntu.com/ubuntu jammy multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy multiverse
deb http://us.archive.ubuntu.com/ubuntu jammy-updates multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-updates multiverse

## N.B. software from this repository may not have been tested as
## extensively as that contained in the main release, although it includes
## newer versions of some applications which may provide useful features.
## Also, please note that software in backports WILL NOT receive any review
## or updates from the Ubuntu security team.
deb http://us.archive.ubuntu.com/ubuntu jammy-backports main restricted universe multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-backports main restricted universe multiverse

deb http://us.archive.ubuntu.com/ubuntu jammy-security main restricted
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-security main restricted
deb http://us.archive.ubuntu.com/ubuntu jammy-security universe
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-security universe
deb http://us.archive.ubuntu.com/ubuntu jammy-security multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-security multiverse

molsong@mois001:~$
```



**BACKUP**

```
## distribution,
deb http://us.archive.ubuntu.com/ubuntu jammy-updates main restricted
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-updates main restricted

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
## team. Also, please note that software in universe WILL NOT receive any
## review or updates from the Ubuntu security team.
deb http://us.archive.ubuntu.com/ubuntu jammy universe
# deb-src http://us.archive.ubuntu.com/ubuntu jammy universe
deb http://us.archive.ubuntu.com/ubuntu jammy-updates universe
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-updates universe

## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
## team, and may not be under a free licence. Please satisfy yourself as to
## your rights to use the software. Also, please note that software in
## multiverse WILL NOT receive any review or updates from the Ubuntu
## security team.
deb http://us.archive.ubuntu.com/ubuntu jammy multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy multiverse
deb http://us.archive.ubuntu.com/ubuntu jammy-updates multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-updates multiverse

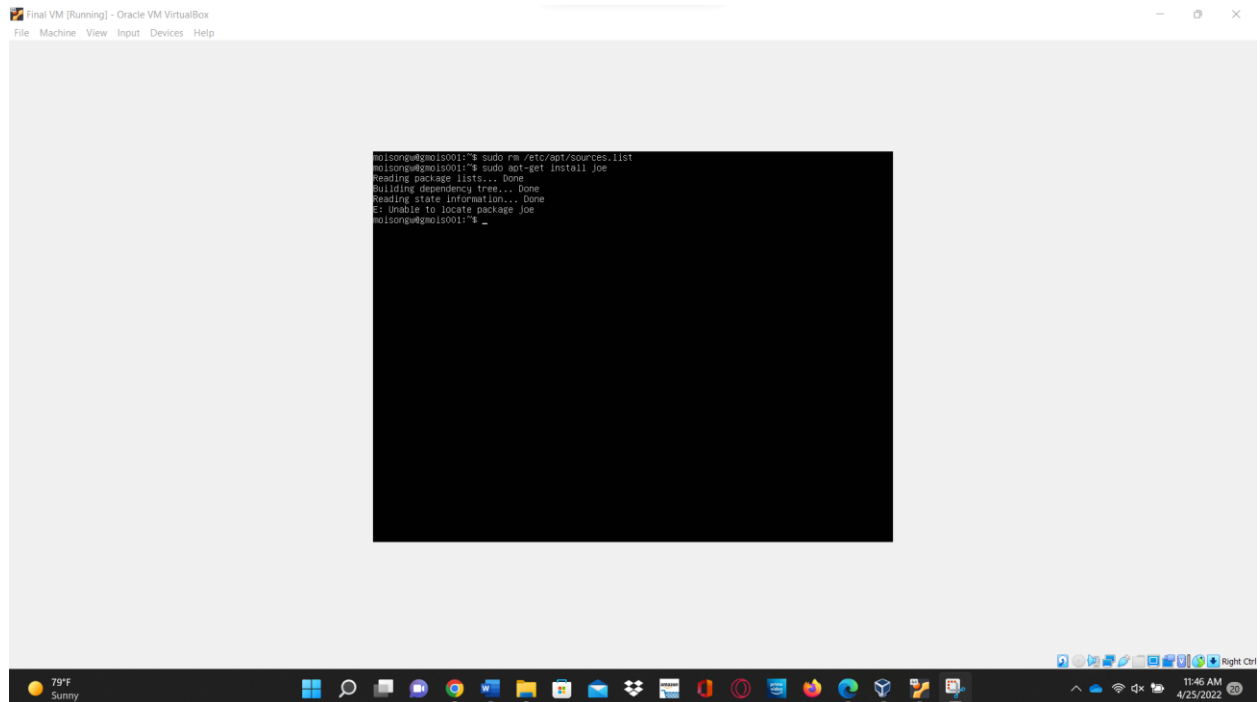
## N.B. software from this repository may not have been tested as
## extensively as that contained in the main release, although it includes
## newer versions of some applications which may provide useful features.
## Also, please note that software in backports WILL NOT receive any review
## or updates from the Ubuntu security team.
deb http://us.archive.ubuntu.com/ubuntu jammy-backports main restricted universe multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-backports main restricted universe multiverse

deb http://us.archive.ubuntu.com/ubuntu jammy-security main restricted
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-security main restricted
deb http://us.archive.ubuntu.com/ubuntu jammy-security universe
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-security universe
deb http://us.archive.ubuntu.com/ubuntu jammy-security multiverse
# deb-src http://us.archive.ubuntu.com/ubuntu jammy-security multiverse

molsong@mois001:~$
```

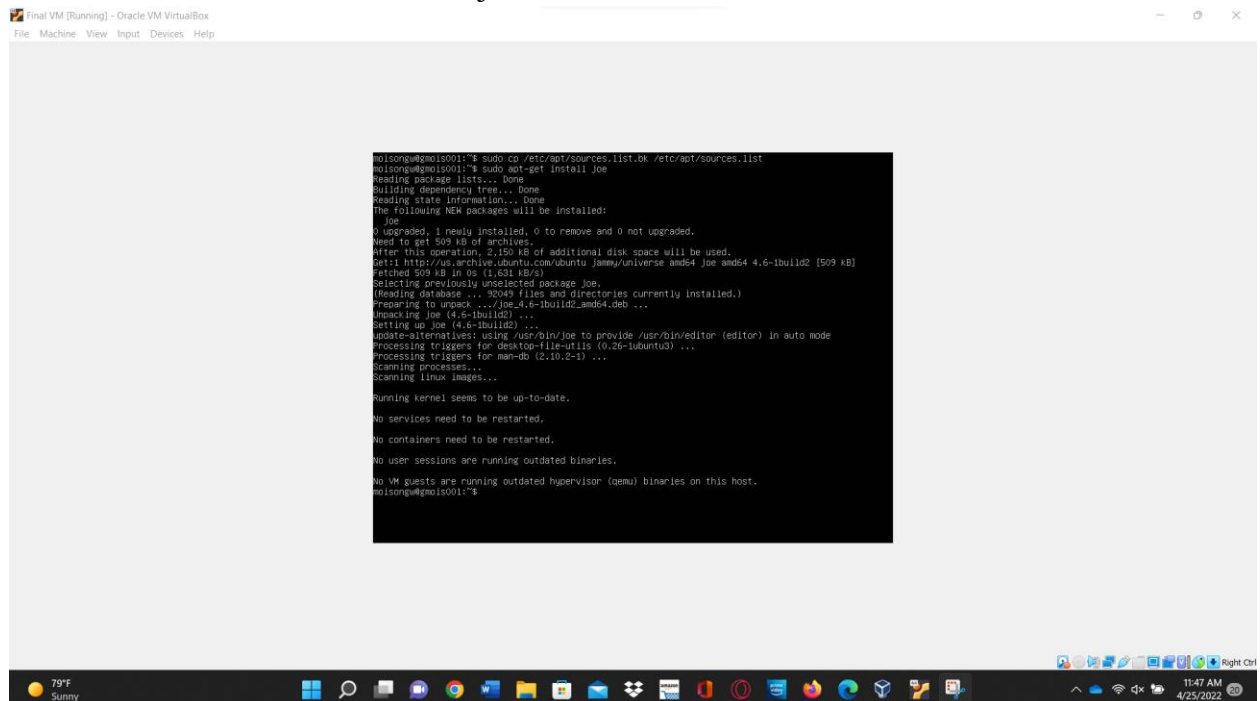


3. **Delete everything in the source.list file.** Now try to download the package “joe” by using apt-get install command. What error do you see?



```
moisongw@mois001:~$ sudo rm /etc/apt/sources.list
moisongw@mois001:~$ sudo apt-get install joe
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package joe
moisongw@mois001:~$
```

4. **Recover the sources.list** from the backup file, then try to download the “joe” file again. You should be able to install joe this time.



```
moisongw@mois001:~$ sudo cp /etc/apt/sources.list.bk /etc/apt/sources.list
moisongw@mois001:~$ sudo apt-get install joe
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  joe
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 509 kB of archives.
After this operation, 2,150 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 joe amd64 4.6-1build2 [509 kB]
Fetched 509 kB in 0s (1,631 kB/s)
Selecting previously unselected package joe.
(Reading database ... 32049 files and directories currently installed.)
Preparing to unpack .../joe_4.6-1build2_amd64.deb ...
Unpacking joe (4.6-1build2) ...
Setting up joe (4.6-1build2) ...
update-alternatives: using /usr/bin/joe to provide /usr/bin/editor (editor) in auto mode
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
moisongw@mois001:~$
```



[illegible]

The screenshot displays a Windows 10 desktop environment. At the top, a notification bar indicates that the Virtual Machine (VM) is running and supports mouse pointer integration. The main window is a Virtual Machine window titled 'Final VM [Running] - Oracle VM VirtualBox'. Inside the VM, a terminal window is open, showing the command 'cat /dev/urandom | tr -dc 'a-z0-9' | fold -w 64 | xargs -n1 sh' being executed. The output of the command is 'Hello!' followed by a ASCII art drawing of a cat. The desktop background is a blue and white pattern. The taskbar at the bottom shows various applications including the Start menu, Search, File Explorer, and several web browsers. The system tray at the bottom right shows the date and time as 11:52 AM on 4/25/2022.

## 7. Install and play the “cmatrix” command.

