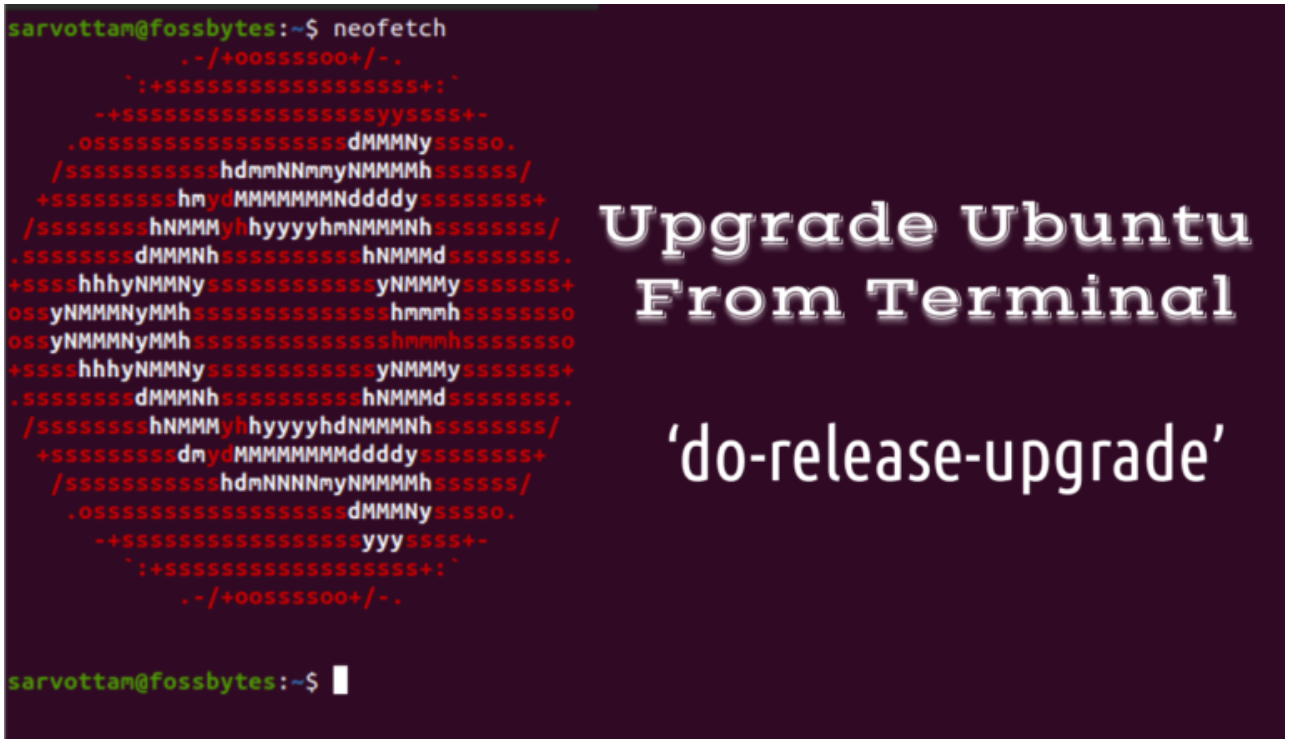
How To Upgrade Ubuntu Using Command Line?

By **Sarvottam Kumar** - April 8, 2020



The next long-term support version of Ubuntu is just about to be released in a few weeks; I guess you must have planned to switch from Ubuntu 18.04 to 20.04 LTS. The upcoming Ubuntu 20.04 is definitely an exciting release with various enhancements and new features, especially GNOME 3.36.

But, you may be wondering how do I upgrade Ubuntu to a newer version? Well, in this guide, I am going to answer exactly the same question. So, get along with me to update and upgrade the old Ubuntu to the latest Ubuntu 20.04 LTS.

There are two methods to upgrade Ubuntu to a newer version or next LTS release — Command L ine and Graphical User Interface (GUI). Here, I want to clarify that this article is specifically for upgrading Ubuntu from the command line. However, you can also

upgrade your system using GUI.

Hence, if you're a terminal geek, you can upgrade the Ubuntu system by writing a single command from a terminal. Using the terminal also allows upgrading the remote system with no graphic environment. Subsequently, sysadmins can log in to their remote Ubuntu system using SSH and follow the same instructions given below to upgrade through a command line.

Note: You cannot upgrade to Ubuntu 20.04 directly from Ubuntu 16, 17, 18.10, 19.04. Your Ubuntu version must be either 18.04 LTS or 19.10. This article is focussed on upgrading to Ubuntu 20.04 LTS (beta) from Ubuntu 18.04 LTS or 19.10.

How Do I Upgrade Ubuntu Using Command-Line?

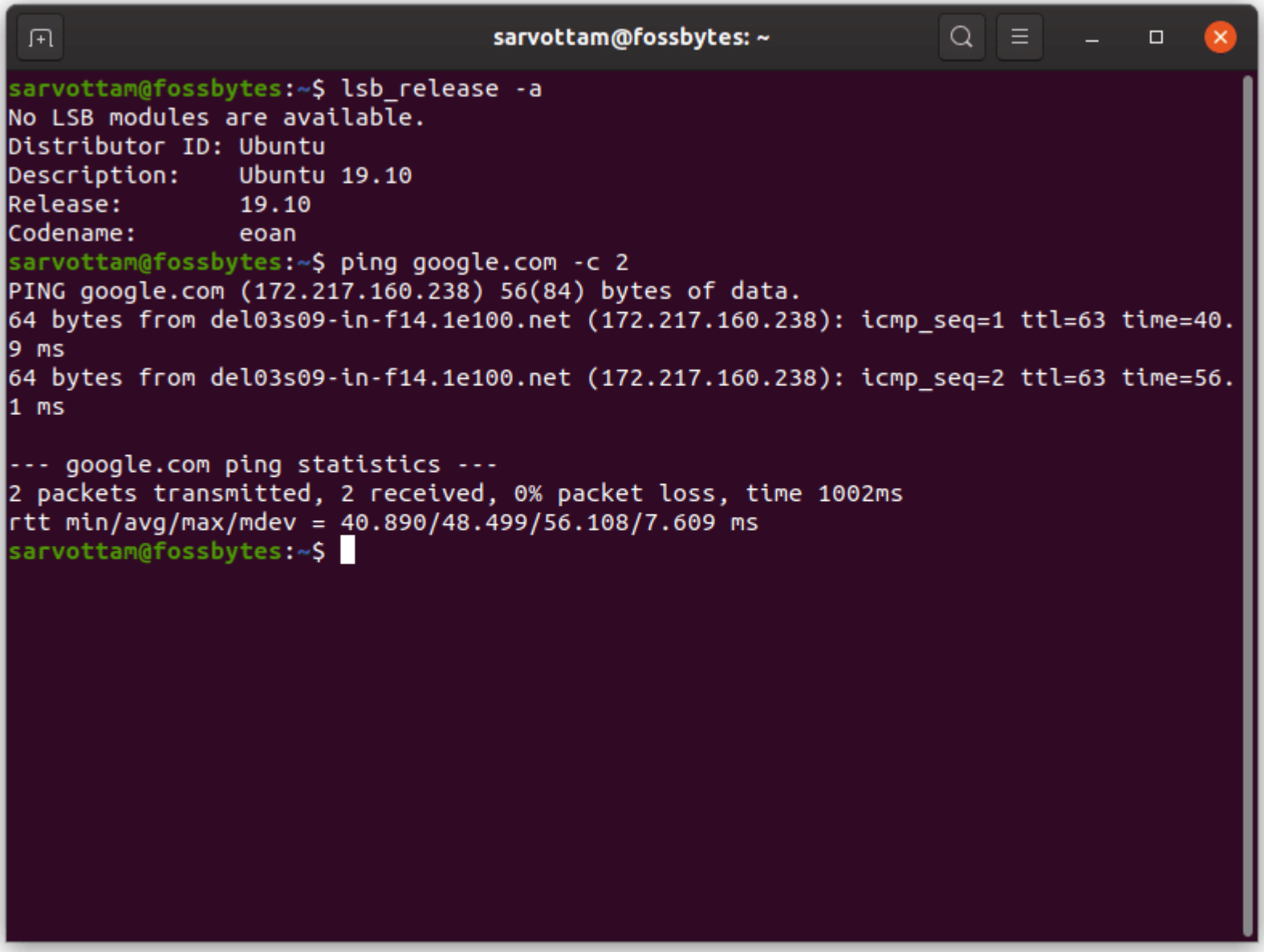
Follow these step-by-step instructions to upgrade Ubuntu from the terminal:

- Setting up a stable internet connection and backing up data
- Updating all packages to their latest versions
- Checking the new version release
- Running 'do-release-upgrade'

1. Stable Internet Connection And Backup Data

Before starting upgradations, connect your system to a stable internet network to avoid any disruption during the package download. You can check your internet connection by transmitting packets using a ping command.

```
ping google.com -c 2
```



Check Ubuntu version and Internet connection

If you have successfully received the two transmitted packets, you are ready to proceed further. But before this, if you want to check your Ubuntu version, run the command:

```
lsb_release -a
```

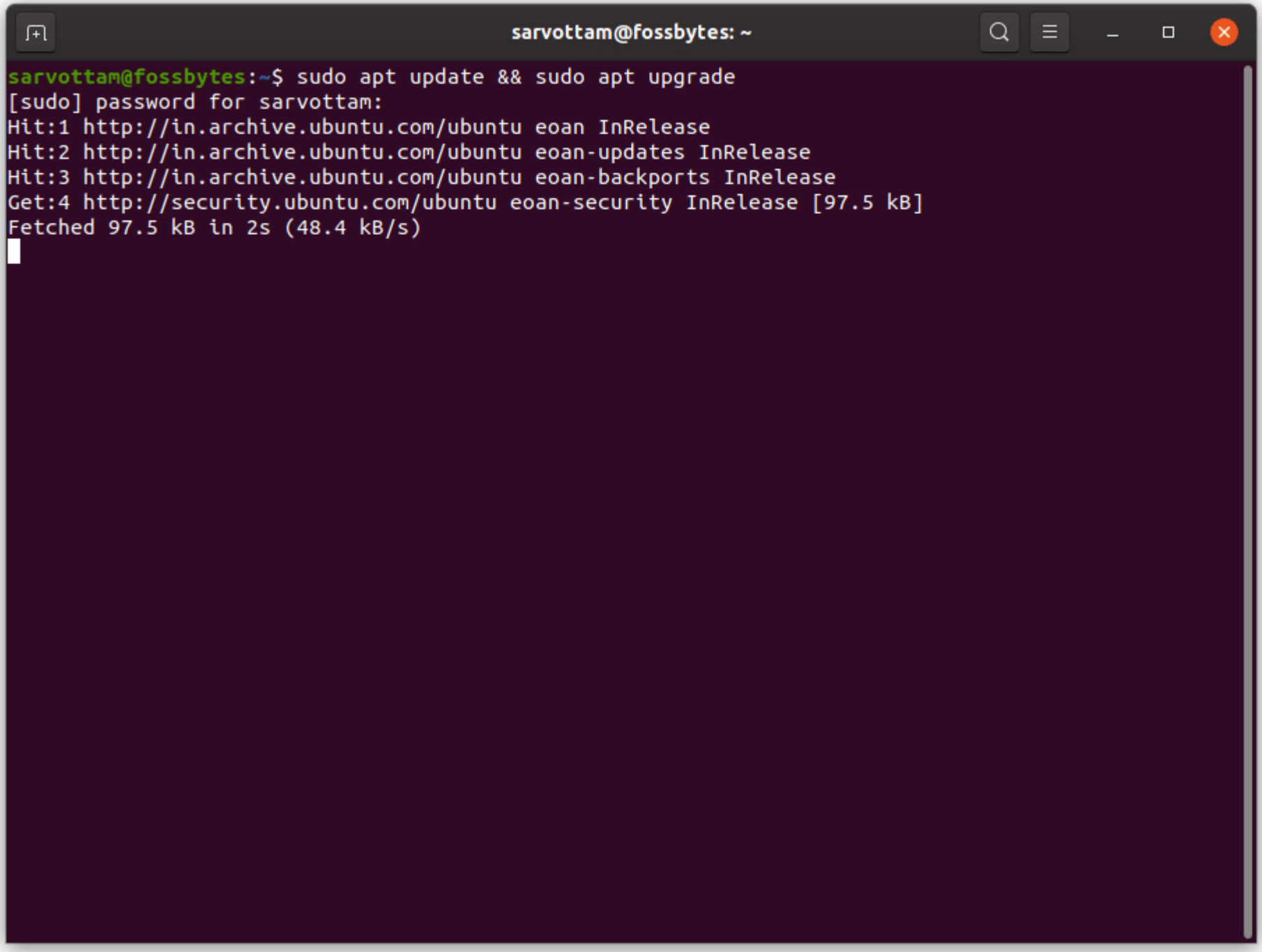
Next, backup all your data to the cloud or another system. Though this is an optional step, precautions must be taken to avoid any data loss in case of failure.

2. Update Ubuntu From Terminal

The newer release of Ubuntu always includes the latest version of packages. Hence, you should update your current list of packages to their latest version. This helps to restrict any package version collision during installations.

Even if you don't wish to update your system, you have to do so for initiating the upgrade process. Run the single line command given below to update Ubuntu along with package upgrade:

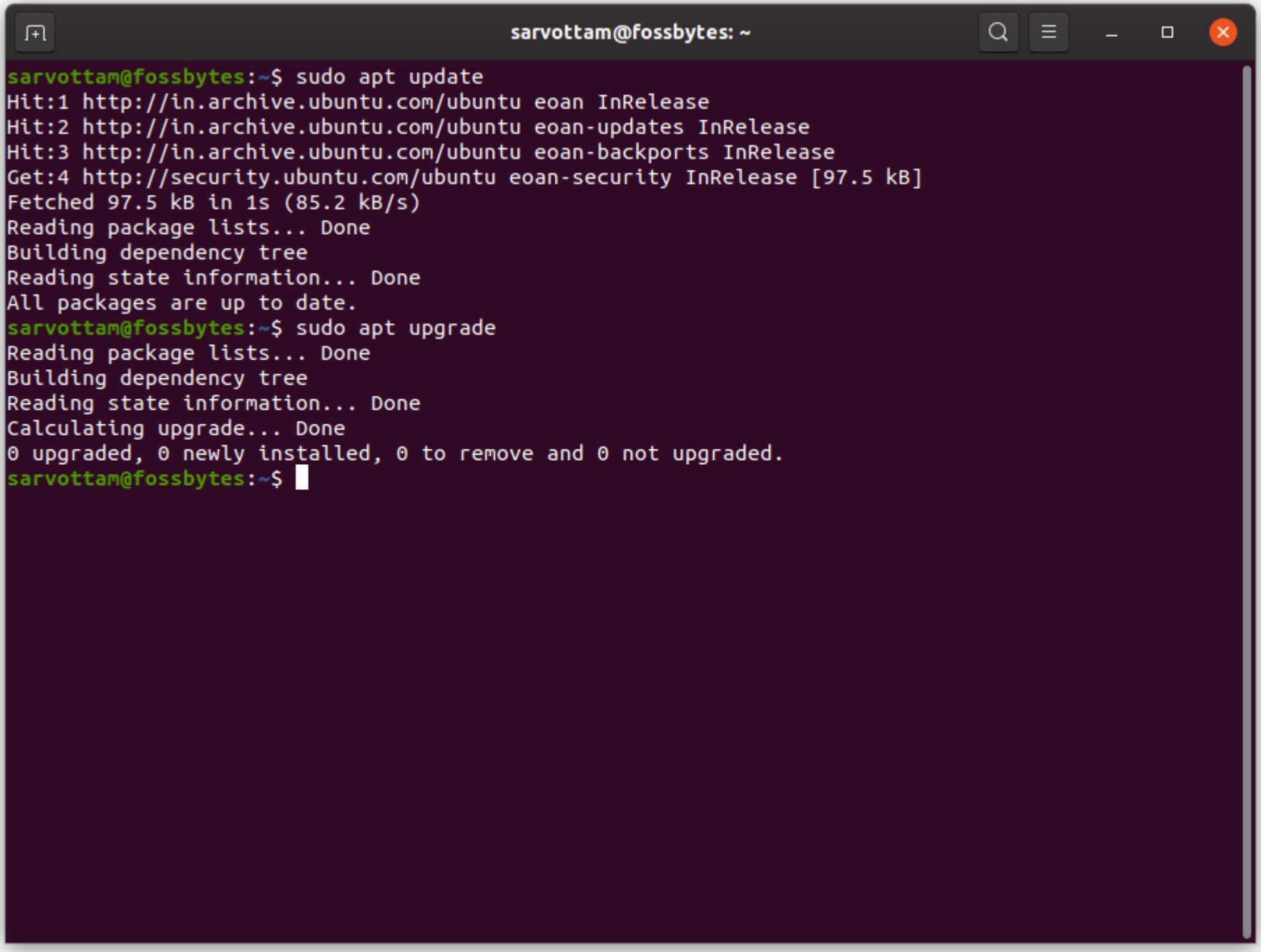
```
sudo apt update && sudo apt upgrade
```


sarvottam@fossbytes: ~
sarvottam@fossbytes:~$ sudo apt update && sudo apt upgrade
[sudo] password for sarvottam:
Hit:1 http://in.archive.ubuntu.com/ubuntu eoan InRelease
Hit:2 http://in.archive.ubuntu.com/ubuntu eoan-updates InRelease
Hit:3 http://in.archive.ubuntu.com/ubuntu eoan-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu eoan-security InRelease [97.5 kB]
Fetched 97.5 kB in 2s (48.4 kB/s)

Start updating Ubuntu

The above command consists of two commands separated by '&&.' 'apt update' only updates the list of available packages and their versions and 'apt upgrade' installs newer versions of the packages from the updated list. Hence, you can also run both commands individually that lead to the same result:

```
sudo apt update
sudo apt upgrade
```


sarvottam@fossbytes: ~
sarvottam@fossbytes:~$ sudo apt update
Hit:1 http://in.archive.ubuntu.com/ubuntu eoan InRelease
Hit:2 http://in.archive.ubuntu.com/ubuntu eoan-updates InRelease
Hit:3 http://in.archive.ubuntu.com/ubuntu eoan-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu eoan-security InRelease [97.5 kB]
Fetched 97.5 kB in 1s (85.2 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
All packages are up to date.
sarvottam@fossbytes:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
sarvottam@fossbytes:~$

Ubuntu update finish

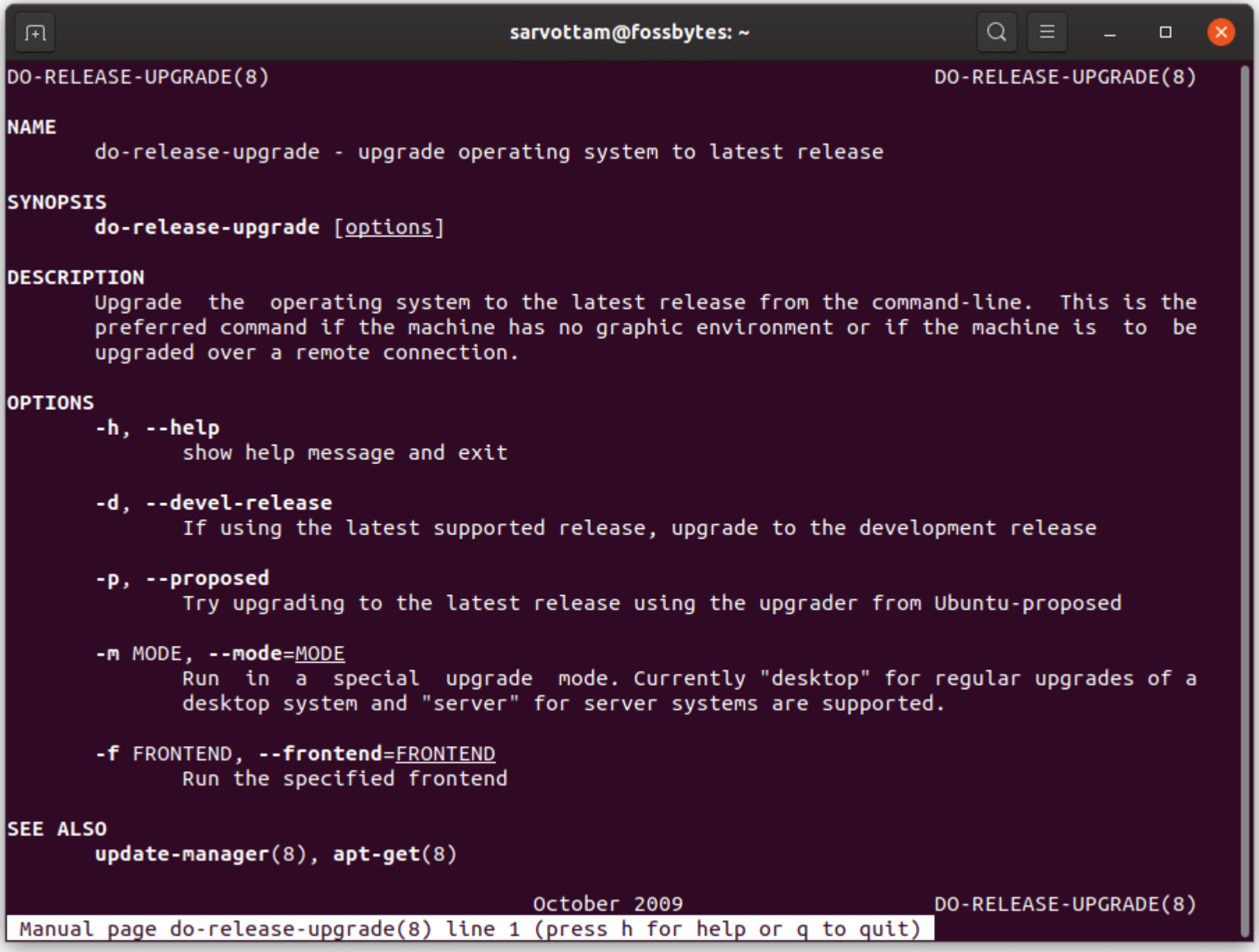
Once the update is finished, reboot your system by running the command:

```
sudo reboot
```

3. Check Out The New Release

In this step, we will check whether the new version is available or not. In order to do so, we will use a command-line tool 'do-release-upgrade.' You can read the full details of this command from the manual.

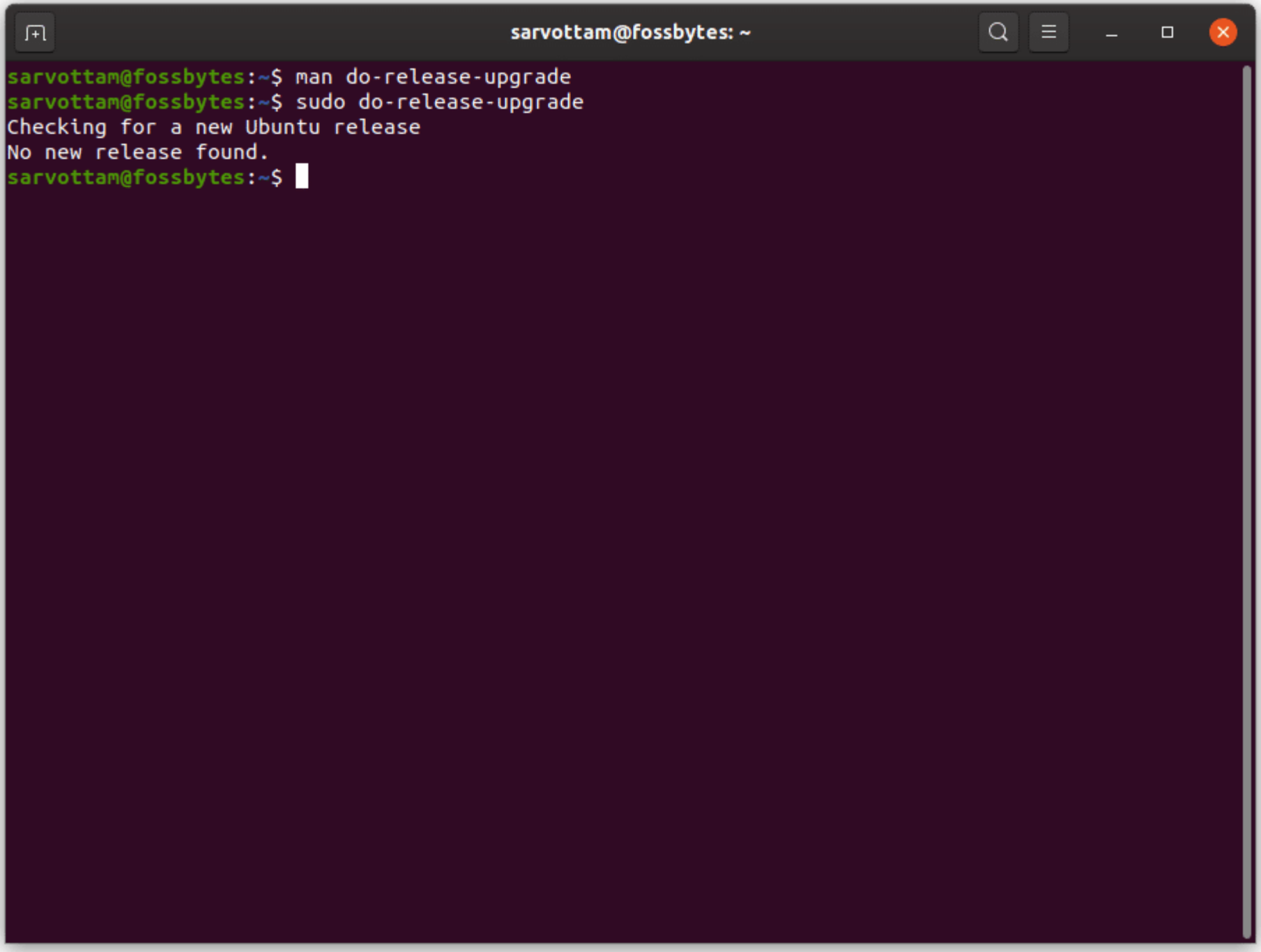
```
man do-release-upgrade
```


sarvottam@fossbytes: ~
DO-RELEASE-UPGRADE(8) DO-RELEASE-UPGRADE(8)
NAME
do-release-upgrade - upgrade operating system to latest release
SYNOPSIS
do-release-upgrade [options]
DESCRIPTION
Upgrade the operating system to the latest release from the command-line. This is the preferred command if the machine has no graphic environment or if the machine is to be upgraded over a remote connection.
OPTIONS
-h, --help
show help message and exit
-d, --devel-release
If using the latest supported release, upgrade to the development release
-p, --proposed
Try upgrading to the latest release using the upgrader from Ubuntu-proposed
-m MODE, --mode=MODE
Run in a special upgrade mode. Currently "desktop" for regular upgrades of a desktop system and "server" for server systems are supported.
-f FRONTEND, --frontend=FRONTEND
Run the specified frontend
SEE ALSO
update-manager(8), apt-get(8)
October 2009 DO-RELEASE-UPGRADE(8)
Manual page do-release-upgrade(8) line 1 (press h for help or q to quit)

do-release-upgrade manual

Now, run the following command to check the availability of the latest version:

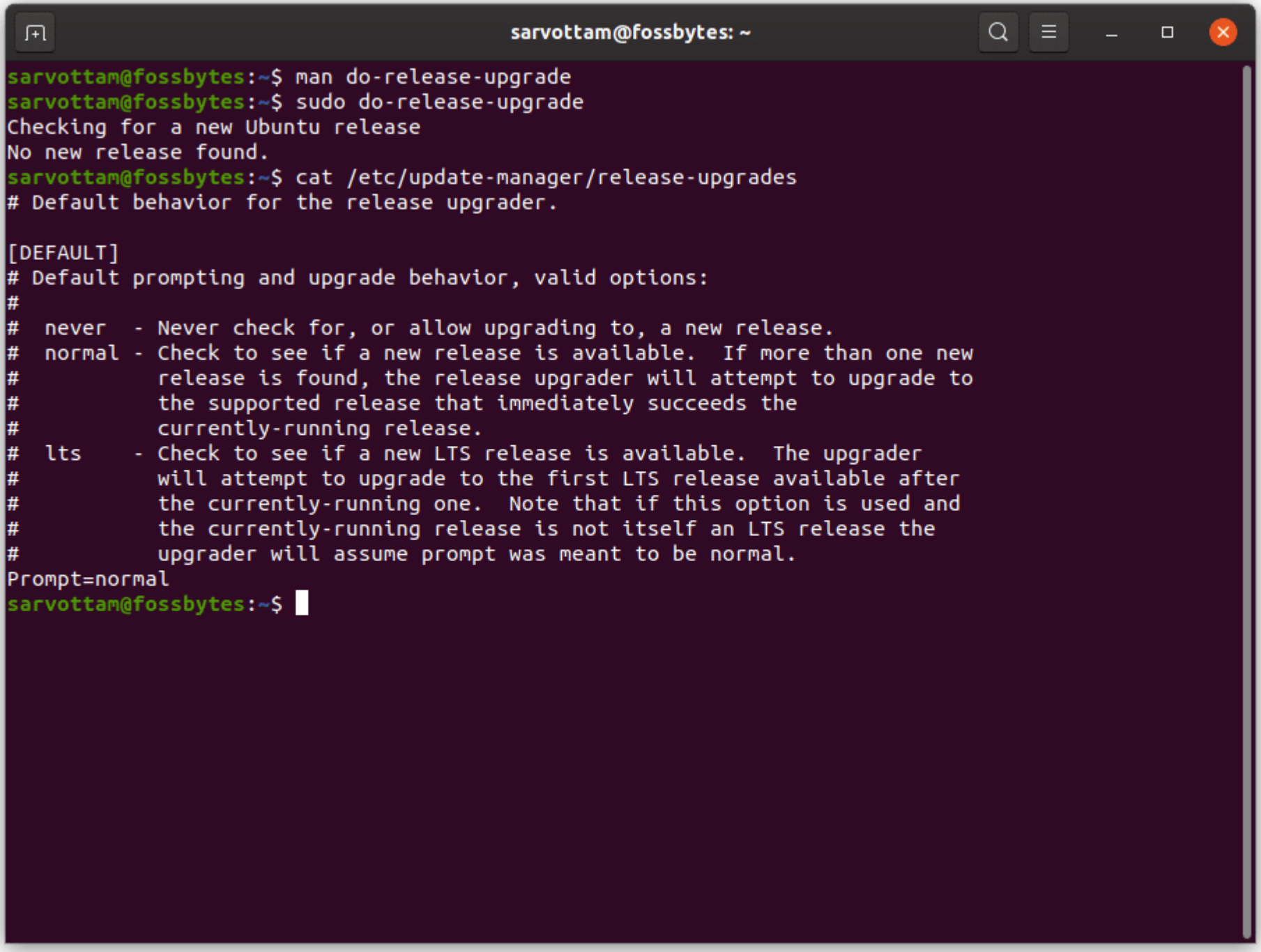
```
sudo do-release-upgrade
```


sarvottam@fossbytes: ~
sarvottam@fossbytes:~$ man do-release-upgrade
sarvottam@fossbytes:~$ sudo do-release-upgrade
Checking for a new Ubuntu release
No new release found.
sarvottam@fossbytes:~$

Check any new release version

Since I'm using Ubuntu 19.10, the result displays "no new releases." It's because at the time of writing this article, Ubuntu 20.04 is under the beta (testing) phase. It means there is no new release available.

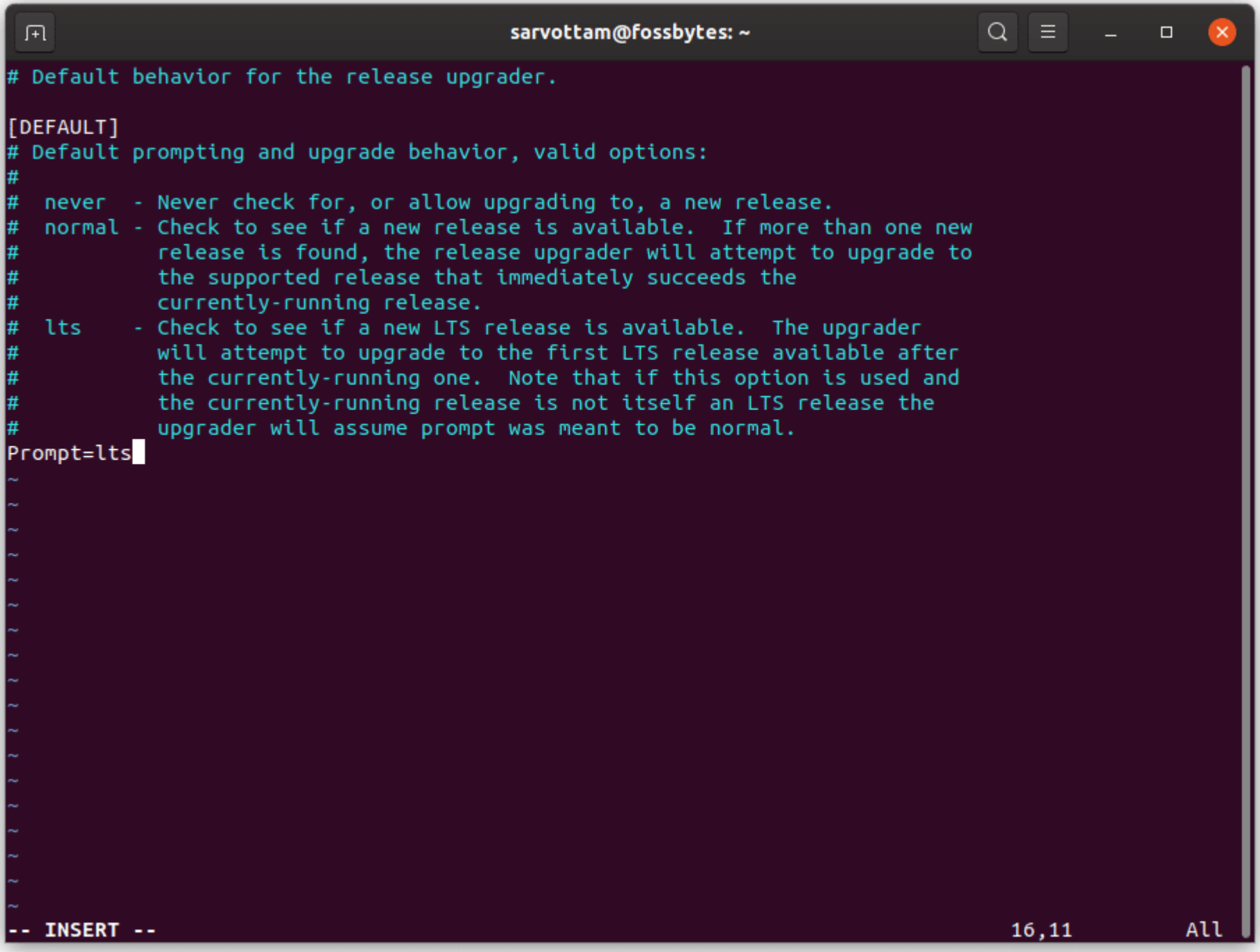
But if you're using Ubuntu 18.04, your results may differ showing a newer version. This is because, by default, the command has a default config value to searches for any new release, i.e., 18.10. You can check your default settings from the '/etc/update-manager/release-upgrades' file.


sarvottam@fossbytes: ~
sarvottam@fossbytes:~$ man do-release-upgrade
sarvottam@fossbytes:~$ sudo do-release-upgrade
Checking for a new Ubuntu release
No new release found.
sarvottam@fossbytes:~$ cat /etc/update-manager/release-upgrades
Default behavior for the release upgrader.
[DEFAULT]
Default prompting and upgrade behavior, valid options:
#
# never - Never check for, or allow upgrading to, a new release.
# normal - Check to see if a new release is available. If more than one new
# release is found, the release upgrader will attempt to upgrade to
# the supported release that immediately succeeds the
# currently-running release.
# lts - Check to see if a new LTS release is available. The upgrader
# will attempt to upgrade to the first LTS release available after
# the currently-running one. Note that if this option is used and
# the currently-running release is not itself an LTS release the
# upgrader will assume prompt was meant to be normal.
Prompt=normal
sarvottam@fossbytes:~$

Check default config of release upgrades

If you want to upgrade to 18.10, type y when you're prompted to choose. Or, type N and edit the settings to replace normal with LTS to check only for the new LTS release.

```
sudo vim /etc/update-manager/release-upgrades
```


sarvottam@fossbytes: ~
Default behavior for the release upgrader.
[DEFAULT]
Default prompting and upgrade behavior, valid options:
#
# never - Never check for, or allow upgrading to, a new release.
# normal - Check to see if a new release is available. If more than one new
#   release is found, the release upgrader will attempt to upgrade to
#   the supported release that immediately succeeds the
#   currently-running release.
# lts   - Check to see if a new LTS release is available. The upgrader
#   will attempt to upgrade to the first LTS release available after
#   the currently-running one. Note that if this option is used and
#   the currently-running release is not itself an LTS release the
#   upgrader will assume prompt was meant to be normal.
Prompt=lts
-- INSERT --
16,11
All

Update release check

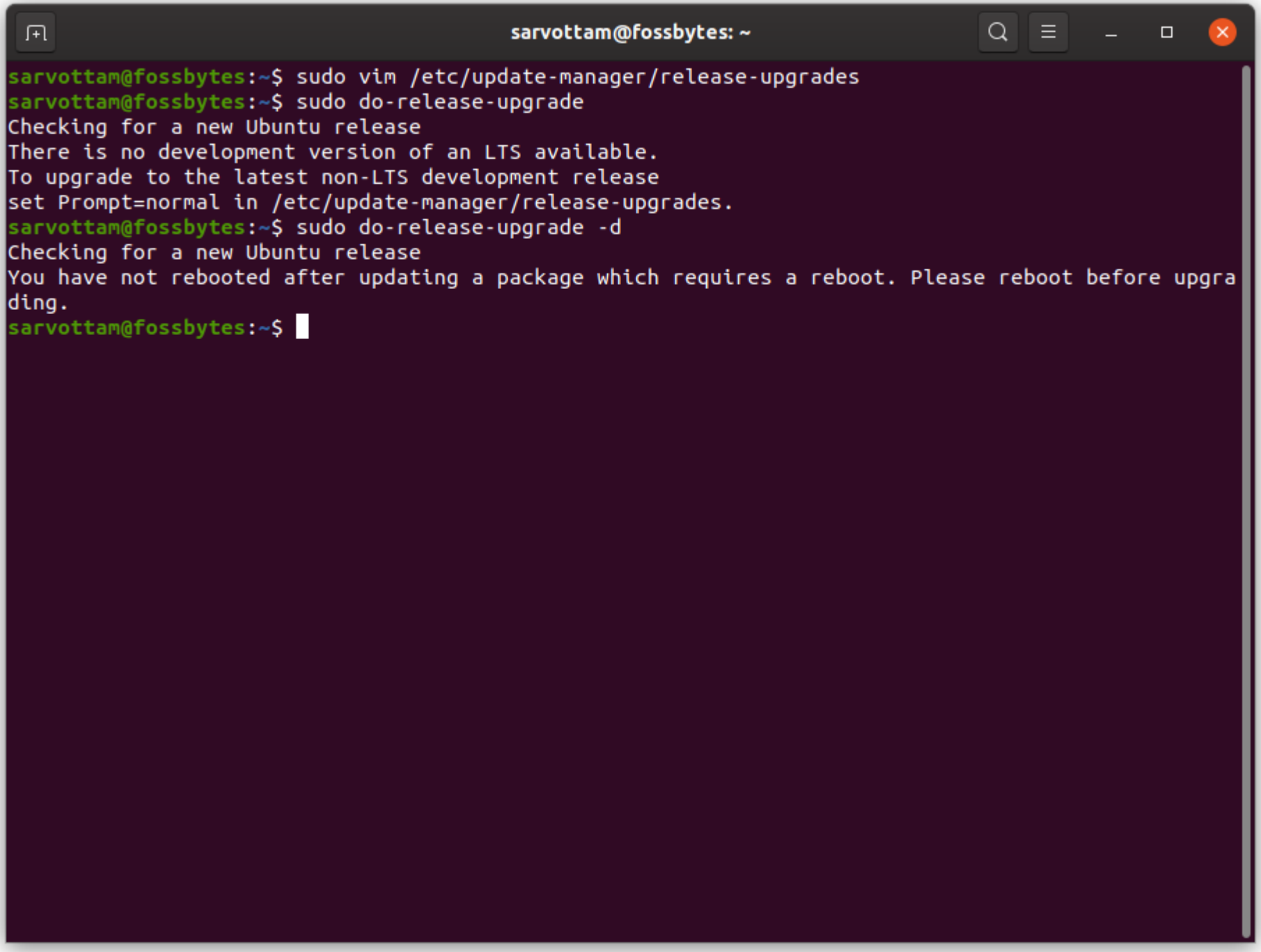
However, you will also now get a “no new release” as the stable release of Ubuntu 20.04 has not yet been released. Therefore, we will use the ‘-d’ flag to install the latest development version of Ubuntu 20.04.

4. Start Upgrading Ubuntu Using Single Command ‘do-release-upgrade’

To install the beta version of Ubuntu 20.04, run the command:

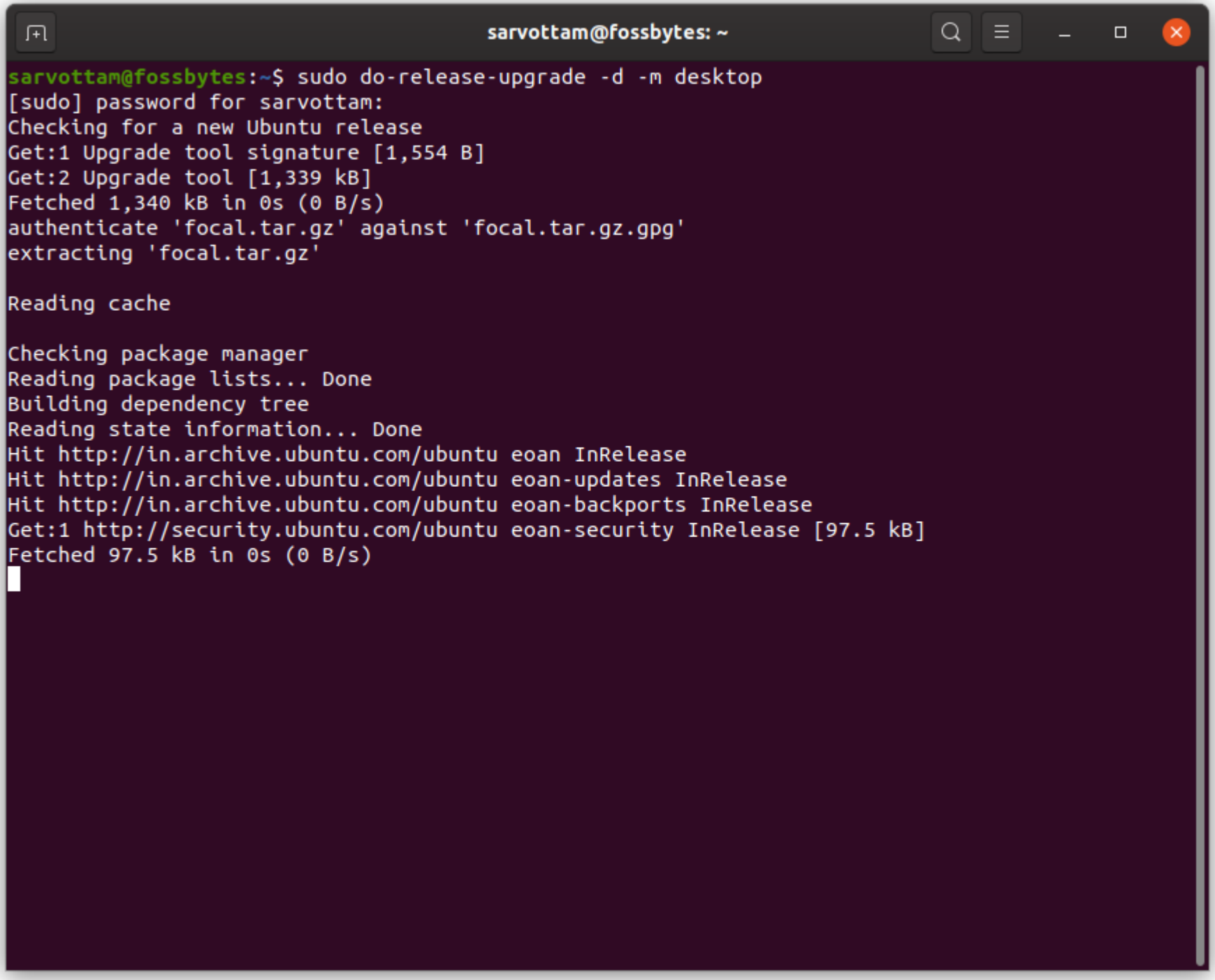
```
sudo do-release-upgrade -d -m desktop
```

Note: ‘-m’ flag denotes the mode of the operating system to either Ubuntu server or desktop.


sarvottam@fossbytes: ~
sarvottam@fossbytes:~$ sudo vim /etc/update-manager/release-upgrades
sarvottam@fossbytes:~$ sudo do-release-upgrade
Checking for a new Ubuntu release
There is no development version of an LTS available.
To upgrade to the latest non-LTS development release
set Prompt=normal in /etc/update-manager/release-upgrades.
sarvottam@fossbytes:~$ sudo do-release-upgrade -d
Checking for a new Ubuntu release
You have not rebooted after updating a package which requires a reboot. Please reboot before upgra
ding.
sarvottam@fossbytes:~$

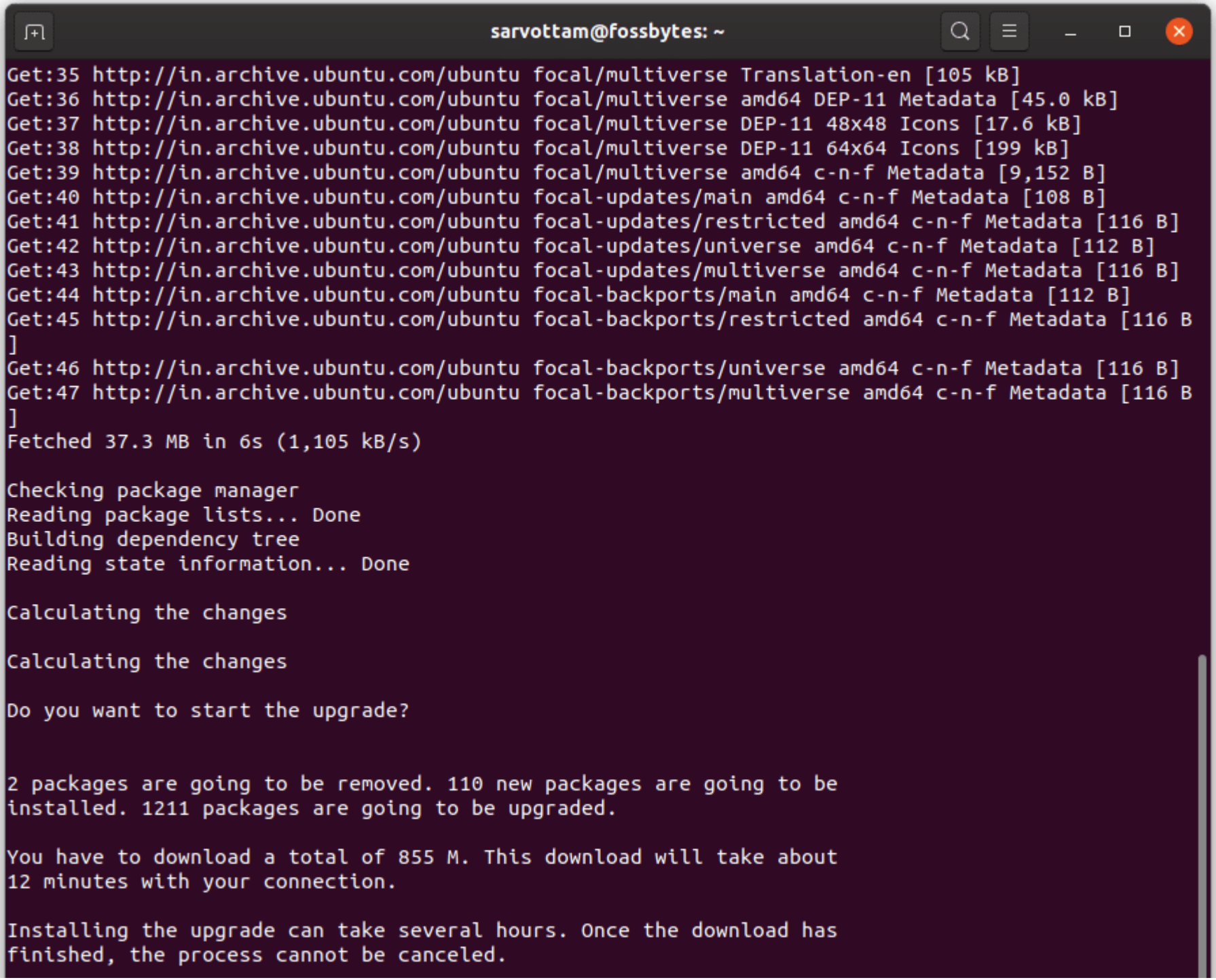
Reboot before starting the upgrade

if you have not rebooted the system after updating Ubuntu, you now have to reboot. Then run the same command again and start Ubuntu upgrade:


sarvottam@fossbytes: ~
sarvottam@fossbytes:~$ sudo do-release-upgrade -d -m desktop
[sudo] password for sarvottam:
Checking for a new Ubuntu release
Get:1 Upgrade tool signature [1,554 B]
Get:2 Upgrade tool [1,339 kB]
Fetched 1,340 kB in 0s (0 B/s)
authenticate 'focal.tar.gz' against 'focal.tar.gz.gpg'
extracting 'focal.tar.gz'
Reading cache
Checking package manager
Reading package lists... Done
Building dependency tree
Reading state information... Done
Hit http://in.archive.ubuntu.com/ubuntu eoan InRelease
Hit http://in.archive.ubuntu.com/ubuntu eoan-updates InRelease
Hit http://in.archive.ubuntu.com/ubuntu eoan-backports InRelease
Get:1 http://security.ubuntu.com/ubuntu eoan-security InRelease [97.5 kB]
Fetched 97.5 kB in 0s (0 B/s)

Start Upgrading Ubuntu

Amid this, it will prompt you to choose whether you want to start the upgrade or not. Type y for yes or N for no.


sarvottam@fossbytes: ~
Get:35 http://in.archive.ubuntu.com/ubuntu focal/multiverse Translation-en [105 kB]
Get:36 http://in.archive.ubuntu.com/ubuntu focal/multiverse amd64 DEP-11 Metadata [45.0 kB]
Get:37 http://in.archive.ubuntu.com/ubuntu focal/multiverse DEP-11 48x48 Icons [17.6 kB]
Get:38 http://in.archive.ubuntu.com/ubuntu focal/multiverse DEP-11 64x64 Icons [199 kB]
Get:39 http://in.archive.ubuntu.com/ubuntu focal/multiverse amd64 c-n-f Metadata [9,152 B]
Get:40 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadata [108 B]
Get:41 http://in.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 c-n-f Metadata [116 B]
Get:42 http://in.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Metadata [112 B]
Get:43 http://in.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f Metadata [116 B]
Get:44 http://in.archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metadata [112 B]
Get:45 http://in.archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f Metadata [116 B
]
Get:46 http://in.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [116 B]
Get:47 http://in.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B
]
Fetched 37.3 MB in 6s (1,105 kB/s)
Checking package manager
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating the changes
Calculating the changes
Do you want to start the upgrade?
2 packages are going to be removed. 110 new packages are going to be
installed. 1211 packages are going to be upgraded.
You have to download a total of 855 M. This download will take about
12 minutes with your connection.
Installing the upgrade can take several hours. Once the download has
finished, the process cannot be canceled.

Choose to start the upgrade

Once the download of packages is finished, it will start upgrading and then removing old packages. This process will take time and ultimately prompt you to restart your system.

Reboot your system and enjoy the new Ubuntu 20.04 !!!