system76

← *Ubuntu - Can't Log In or No Icons On Desktop*

Sometimes after an upgrade or under certain conditions, your system might not bring you to the desktop after logging in. If you try logging in and Ubuntu just brings you back to the login screen even though your password was correct, you're experiencing a login loop. There are several causes for login loop:

- NVIDIA driver issue
- An update broke the window manager
- Attempted to start the window manager as root
- An issue with your user account

Each cause has a different solution, and certain items (e.g., NVIDIA) might not be applicable to your system. In most cases, you can drop down to a terminal (called a *TTY*) to log in and fix the issue.

Alternately, if you can log in but there's no icons on your desktop, see the Update Broke The Window Manager section below.

Switch To Terminal

First, confirm that you can log in to your user account. At the login screen, press `Ctrl` + `Alt` + `F1` to switch to a TTY. You'll be prompted to enter a login. At the `login` prompt, enter your username and press `Enter`. You'll then be prompted for your password. As you type your password, it won't be displayed nor will it be obfuscated.

Once you're logged in, you'll be presented with a prompt showing your username, hostname, and a tilde (~) representing your home directory.

```
Ubuntu 16.04.2 LTS bunty tty1

bunty login: april
Password:
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-49-generic x86_64)

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

83 packages can be updated.
0 updates are security updates.


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

april@bunty:~$ _
```

If you're not able to log in, there could be a few reasons:

- Wrong username
- Something is blocking the login
- Wrong password (you're notified of this at the graphical login greeter)

The easiest way to confirm your login (username) is by booting into recovery mode, starting a root shell, and running `ls` in the `/home` directory, as outlined in the Password Reset article. If your login is correct (both username and password) then something else is blocking the login. This is a difficult issue to troubleshoot, and you might want to consider backing up your files from a live disk and Reinstall Ubuntu or contacting Support for more assistance.

If you get logged in without issue, move on to the next steps.

Note that you can always return to the graphical login screen by pressing `Ctrl` + `Alt` + `F7`

Reinstall NVIDIA Driver

If your system is equipped with NVIDIA graphics, a recent update might be causing the login issues. Refer to the table below to determine if your system contains NVIDIA graphics.

Always	Maybe	Never

Oryx Pro	Wild Dog Pro	Lemur
Serval WS	Ratel	Gazelle
Bonobo WS	Galago Pro (w/ eGPU)	Kudu
Leopard WS		Meerkat
Silverback WS		

Even if your system doesn't have NVIDIA graphics, there's no harm in uninstalling the driver. If it's not installed, nothing will happen.

To remove the NVIDIA drivers, run the following:

```
sudo apt purge nvidia*
```

Wait for `apt` to complete, then reboot by typing `reboot` at the prompt.

```
Package 'nvidia-340-uvm' is not installed, so not removed
Package 'nvidia-361' is not installed, so not removed
Package 'nvidia-361-dev' is not installed, so not removed
Package 'nvidia-367' is not installed, so not removed
Package 'nvidia-367-dev' is not installed, so not removed
Package 'nvidia-375-dev' is not installed, so not removed
Package 'nvidia-current' is not installed, so not removed
Package 'nvidia-current-dev' is not installed, so not removed
Package 'nvidia-libopencl1-367' is not installed, so not removed
Package 'nvidia-libopencl1-375' is not installed, so not removed
Package 'nvidia-opencl-icd-304' is not installed, so not removed
Package 'nvidia-opencl-icd-304-updates' is not installed, so not removed
Package 'nvidia-opencl-icd-340' is not installed, so not removed
Package 'nvidia-opencl-icd-361' is not installed, so not removed
Package 'nvidia-opencl-icd-367' is not installed, so not removed
Package 'nvidia-common' is not installed, so not removed
Package 'nvidia-libopencl1-304' is not installed, so not removed
Package 'nvidia-libopencl1-304-updates' is not installed, so not removed
Package 'nvidia-libopencl1-331' is not installed, so not removed
Package 'nvidia-libopencl1-331-updates' is not installed, so not removed
Package 'nvidia-libopencl1-340' is not installed, so not removed
Package 'nvidia-libopencl1-340-updates' is not installed, so not removed
Package 'nvidia-libopencl1-361' is not installed, so not removed
Package 'nvidia-opencl-icd-331' is not installed, so not removed
Package 'nvidia-opencl-icd-331-updates' is not installed, so not removed
Package 'nvidia-opencl-icd-340-updates' is not installed, so not removed
The following packages were automatically installed and are no longer required:
  bbswitch-dkms dkms lib32gcc1 libc6-i386 libjansson4 libvdpau1 libxnvctrl0 mesa-vdpau-drivers
  python3-evdev screen-resolution-extra system76-driver system76-wallpapers vdpau-driver-all
  xserver-xorg-legacy
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  libcuda1-375* nvidia-375* nvidia-opencl-icd-375* nvidia-prime* nvidia-settings*
  system76-driver-nvidia*
0 upgraded, 0 newly installed, 6 to remove and 210 not upgraded.
After this operation, 337 MB disk space will be freed.
Do you want to continue? [Y/n] _
```

After you've rebooted, try logging in. Since the NVIDIA driver was removed, your display might be using a different resolution. This will be corrected after reinstalling the NVIDIA driver. If you can successfully log in, open a terminal by pressing `Ctrl` + `Alt` + `T` and run the following command:

```
sudo apt install system76-driver-nvidia
```

After the installation has completed, type `reboot` and confirm you can still log in. If it works, you're all set! If not, try some of the next steps.

Update Broke Window Manager

In rare cases, you can log in, but there are no icons or launcher on the desktop. Follow the steps above to Switch To Terminal, then run the following commands once logged in:

```
mv ~/.cache/compizconfig-1 ~/cconfig-old
reboot
```

After the system reboots, confirm that you can log in and that your icons and launcher are restored. This might change some of your desktop settings such as launcher icon position or desktop background, but it does not affect your files. If you still can't log in, or if this doesn't apply, see the next section.

Attempted to Start The Window Manager as Root

Perhaps you logged in to the terminal and tried to run `sudo startx` while logged in as your user. X runs as an individual user, so you should *never* run `sudo startx` to start the window manager. Usually, it only changes the permissions on a single file, `~/.Xauthority` which can be reverted from the terminal. Follow the steps above to Switch To Terminal then run the following commands to:

- Confirm the file ownership of .Xauthority
- Change ownership back to your user *replacing username:username with your actual username*
- Confirm the updated file ownership of .Xauthority

```
ls -lah .Xauthority
sudo chown username:username .Xauthority
ls -lah .Xauthority
```

```
april@bunty:~$ ls -lah .Xauthority
-rw------- 1 root root 50 May  1 08:08 .Xauthority
april@bunty:~$ sudo chown april:april .Xauthority
[sudo] password for april:
april@bunty:~$ ls -lah .Xauthority
-rw------- 1 april april 50 May  1 08:08 .Xauthority
april@bunty:~$
```

Switch back to the graphical login with `Ctrl` + `Alt` + `F7` and confirm you can log in.

If These Steps Don't Work

Contact Support: we have a few more things to try. There are a significant number of processes and files required for your graphical desktop environment to be loaded, and much fewer for the terminal login. As such, you can usually recover your desktop using the command line interface!