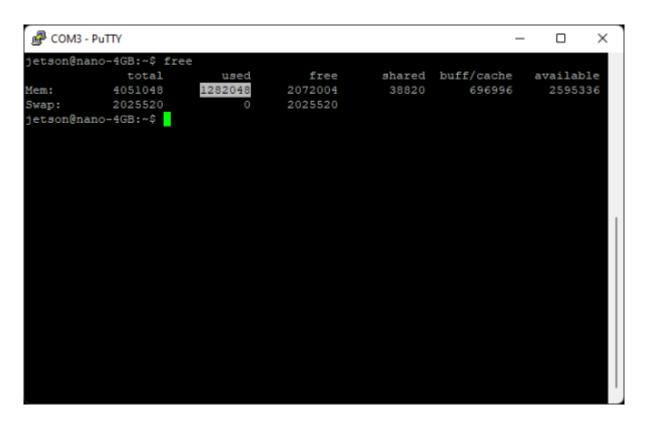
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## **Improve Performance**

By default the desktop environment used on Jetson is GNOME, which is a visual environment with animations in the interaction and usability, that has a direct impact on memory usage.

We can see the current amount of memory used by our jetson with the following command

## \$ free



In this case the Jetson is using 1,282,048 KB equivalent to 1.28 GB.

The way to improve memory consumption is to change the desktop environment from GNOME to LXDE (Lightweight X11 Desktop Environment). LXDE prioritizes performance and memory usage which makes it perfect for applications with hardware limitations or simply optimizing performance, and is also the recommended lightweight window manager alternative by NVIDIA.

```
$ wget
https://raw.githubusercontent.com/jetsonhacks/installLXDE/main/installLXDE.s
h && bash installLXDE.sh
$ sudo reboot
```

After reboot and login with LXDE desktop environment the memory consumption is 927,388 KB equivalent to 0.92 GB.

```
$ free
```

```
COM3 - PuTTY
                                                                            ×
                                                                       jetson@nano-4GB:~$ free
                                               shared buff/cache
             total
                         used
                                     free
                                                                    available
           4051048
                       927388
                                  2407864
                                                38428
                                                           715796
                                                                      2936072
Swap:
           2025520
                                  2025520
jetson@nano-4GB:~$
```

## **Best Performance**

However, even if the desktop environment is changed, the best performance is achieved in **Headless** Mode.

```
COM3 - PuTTY
                                                                         X
jetson@nano-4GB:~$ free
             total
                          used
                                      free
                                                 shared buff/cache
                                                                      available
                        505432
                                                 21092
                                                            1194852
           4059240
                                   2358956
                                                                        3369852
Mem:
           2029616
                                   2029616
Swap:
jetson@nano-4GB:~$
```

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