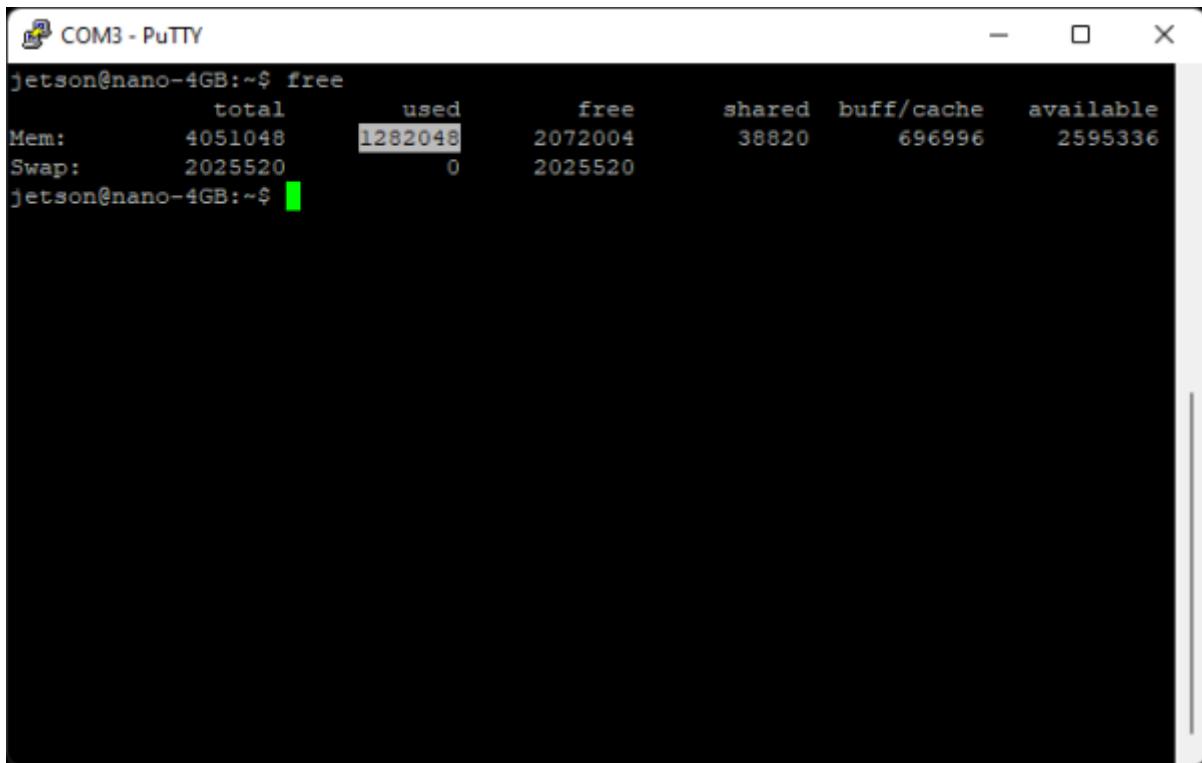


# Improve Performance

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
```



	total	used	free	shared	buff/cache	available
Mem:	4051048	1282048	2072004	38820	696996	2595336
Swap:	2025520	0	2025520			

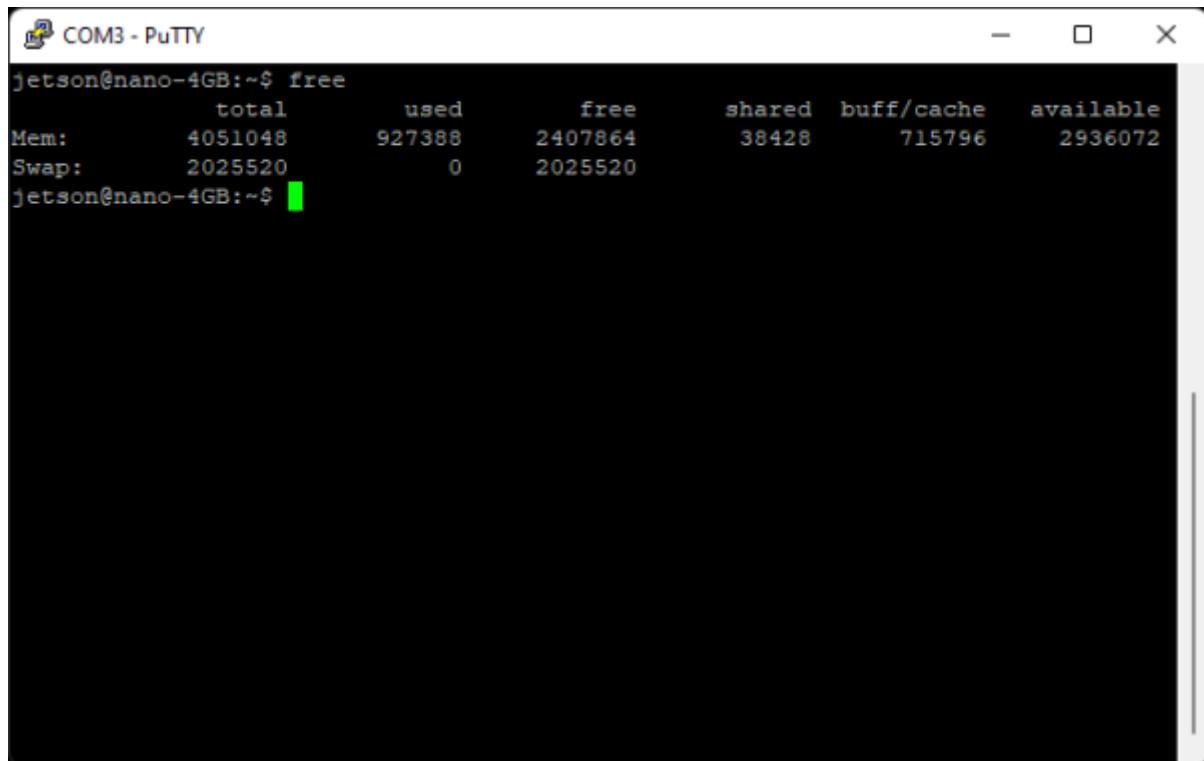
In this case the Jetson is using *1,282,048 KB* equivalent to *1.28 GB*.

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.sh  
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*.

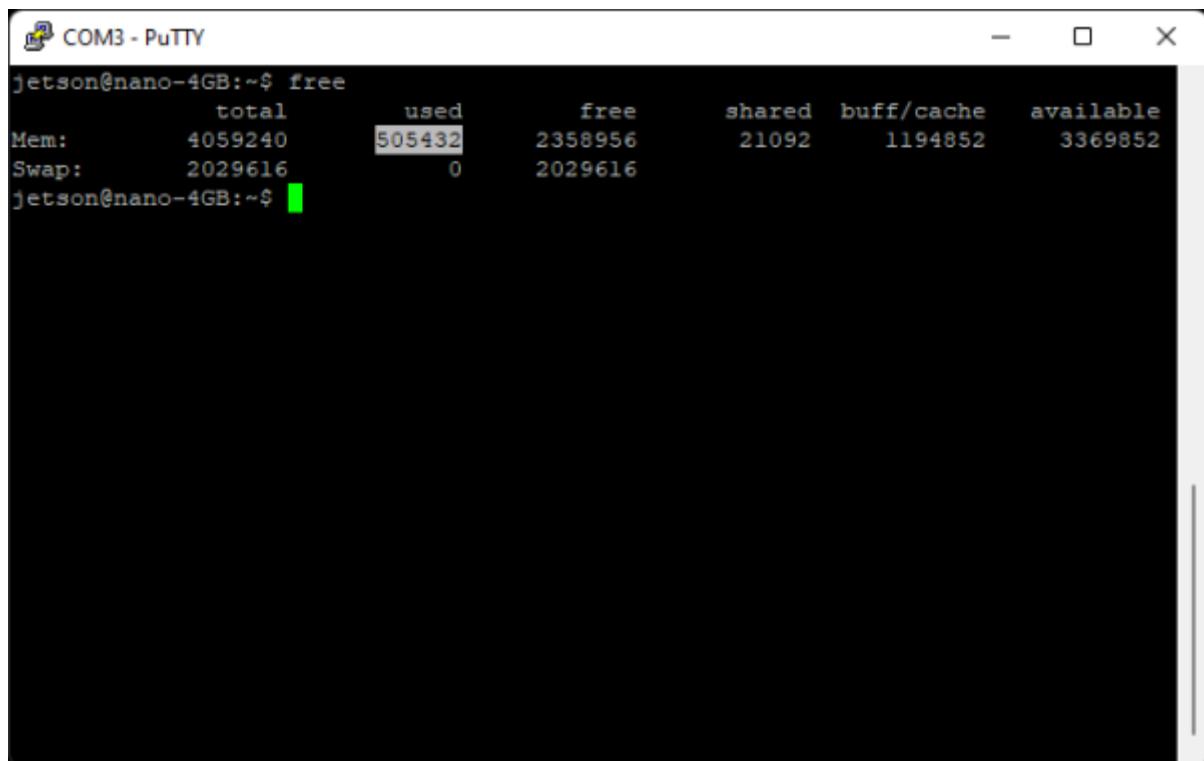
```
$ free
```



```
jetson@nano-4GB:~$ free
total        used        free      shared  buff/cache   available
Mem:    4051048     927388     2407864      38428     715796    2936072
Swap:  2025520          0    2025520
jetson@nano-4GB:~$
```

## Best Performance

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



```
jetson@nano-4GB:~$ free
total        used        free      shared  buff/cache   available
Mem:    4059240     505432     2358956      21092     1194852    3369852
Swap:  2029616          0    2029616
jetson@nano-4GB:~$
```

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