Advanced htop Fields Explained

1. PRI (Priority) and NI (Nice Value)

- PRI shows how important a process is for CPU scheduling. Lower PRI = higher priority.
- NI (Nice value) ranges from -20 (very important) to 19 (least important). It influences PRI.

Example:

$ nice -n 10 myscript.sh

-> Starts 'myscript.sh' with lower CPU priority (nice value 10).

$ renice -n -5 -p 1234

-> Changes process 1234 to a higher priority (nice value -5).

2. VIRT (Virtual Memory Used)

- Total memory the process can access: code, data, libraries, mapped files, and swap.
- It includes memory not yet used but reserved.

Example:

A browser might show 1.5 GB VIRT because it preloads libraries, but not all are in active use.

3. SHR (Shared Memory Used)

- Memory shared with other processes, like shared libraries (libc, GUI libs).
- It helps reduce overall memory usage.

Example:

Multiple GNOME apps may share GTK libraries, showing similar SHR usage in htop.