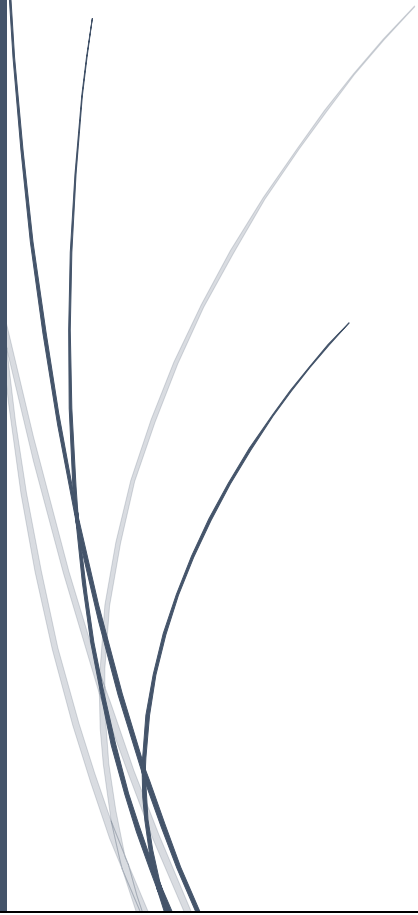




Linux System Monitoring



As I dive deeper into the world of DevOps, system observability is becoming more than just a buzzword. Today, I'm learning how to monitor Linux systems effectively using built-in tools and a few additions.

Why Monitoring Matters in DevOps ??

Whether your app is crashing, running slow, or using too many resources — keeping an eye on your system is the first step to fixing problems and making things run smoothly.

Installation (if not available by default):

```
1  # Install sysstat package (includes iostat, mpstat, etc.)
2  sudo apt install sysstat          # For Debian/Ubuntu
3  sudo yum install sysstat          # For RHEL/CentOS
4
5  # Install net-tools for ifconfig, netstat, etc.
6  sudo apt install net-tools
7
8  # Install htop (better version of top)
9  sudo apt install htop
10
11 # Install dstat for overall performance
12 sudo apt install dstat
13
14 # For newer systems
15 sudo apt install glances
16 |
```

Categories of Monitoring

1	Area	Commands/Tools
2	CPU	top, htop, mpstat, uptime
3	Memory	free -h, vmstat, top, htop
4	Disk	df -h, du -sh, iostat, dstat
5	Processes	top, htop, ps aux
6	Network	netstat, ss, ifconfig, ip a
7	I/O	iotop, iostat, dstat
8	System	Load uptime, top, w, who
9	Logs	journalctl, tail -f /var/log/syslog

Basic Usage Examples

CPU Monitoring

Top : Real-time view of CPU & process usage

```
yashil2@RT0070:~$ top
top - 08:39:34 up 38 min, 1 user, load average: 0.33, 0.18, 0.17
Tasks: 59 total, 1 running, 58 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.5 us, 0.5 sy, 0.0 ni, 98.6 id, 0.2 wa, 0.0 hi, 0.2 si, 0.0 st
MiB Mem : 7759.2 total, 5576.5 free, 1659.9 used, 699.0 buff/cache
MiB Swap: 2048.0 total, 2048.0 free, 0.0 used, 6099.3 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR S %CPU  %MEM    TIME+  COMMAND
 1543 kafka    20   0 9824648 410416 24752 S  2.7   5.2   1:17.95 java
 238 root      20   0 2588868 107008 66816 S  2.0   1.3   0:48.60 nomad
1296 yashil2   20   0 10.1g 530468 25316 S  0.7   6.7   0:53.82 java
  65 root      19  -1 91856 30548 29524 S  0.3   0.4   0:04.82 systemd-journal
 313 root      20   0 2023864 47316 33792 S  0.3   0.6   0:04.42 containerd
2198 grafana  20   0 1790784 237608 162688 S  0.3   3.0   0:22.89 grafana
38295 yashil2   20   0 9296 5504 3328 R  0.3   0.1   0:00.03 top
   1 root      20   0 21940 12248 9176 S  0.0   0.2   0:09.06 systemd
   2 root      20   0 3060 1664 1664 S  0.0   0.0   0:00.03 init-systemd(Ub
   7 root      20   0 3076 1916 1792 S  0.0   0.0   0:00.00 init
 113 root      20   0 25400 6272 4864 S  0.0   0.1   0:00.59 systemd-udev
 128 root      20   0 153068 1668 1280 S  0.0   0.0   0:00.01 snapfuse
 129 root      20   0 152936 1540 1408 S  0.0   0.0   0:00.03 snapfuse
 134 root      20   0 451992 11068 1280 S  0.0   0.1   0:06.15 snapfuse
 136 root      20   0 152936 1284 1152 S  0.0   0.0   0:00.01 snapfuse
```

Htop: Colorful top with scroll/filter

```
0.0% 2.0% 3.0% 2.0% 6.0% 0.0% 9.0% 0.0%
1.3% 1.3% 4.0% 0.7% 7.0% 0.7% 16.0% 4.6%
2.0% 2.0% 5.0% 1.3% 8.0% 1.3% 11.0% 0.7%
Mem[|||||] 1.47G/7.58G Tasks: 59, 317 thr, 0 kthr, 2 running
Swp[|||||] 0K/2.00K Load average: 0.09 0.14 0.15
Uptime: 00:40:19

Main I/O
PID USER      PRI  NI  VIRT  RES  SHR S %CPU  %MEM    TIME+  Command
741 root      20   0 2310M 35724 23936 S  0.0   0.4   0:00.09 /usr/lib/snapd/snapd
40633 yashil2   20   0 7112 5760 3328 R  0.7   0.1   0:00.11 htop
   1 root      20   0 21940 12248 9176 S  0.0   0.2   0:09.49 /sbin/init
   2 root      20   0 3060 1664 1664 S  0.0   0.0   0:00.03 /init
   7 root      20   0 3076 1916 1792 S  0.0   0.0   0:00.00 plan9 --control-socket 7 --log-level 4 --server-fd 8 --pipe-fd 10 --log-truncate
   8 root      20   0 3076 1916 1792 S  0.0   0.0   0:00.00 plan9 --control-socket 7 --log-level 4 --server-fd 8 --pipe-fd 10 --log-truncate
   9 root      20   0 3060 1664 1664 S  0.0   0.0   0:00.00 /init
  65 root      19  -1 91856 31060 30036 S  0.0   0.4   0:05.01 /usr/lib/systemd/systemd-journald
 113 root      20   0 25400 6272 4864 S  0.0   0.1   0:00.59 /usr/lib/systemd/systemd-udev
 128 root      20   0 149M 1668 1280 S  0.0   0.0   0:00.00 snapfuse /var/lib/snapd/snaps/jq.6.snap /snap/jq/6 -o ro,nodev,allow_other,suid
 129 root      20   0 149M 1540 1408 S  0.0   0.0   0:00.00 snapfuse /var/lib/snapd/snaps/core.17212.snap /snap/core/17212 -o ro,nodev,allow_other,su
 130 root      20   0 149M 1668 1280 S  0.0   0.0   0:00.01 snapfuse /var/lib/snapd/snaps/jq.6.snap /snap/jq/6 -o ro,nodev,allow_other,suid
 131 root      20   0 149M 1540 1408 S  0.0   0.0   0:00.01 snapfuse /var/lib/snapd/snaps/core.17212.snap /snap/core/17212 -o ro,nodev,allow_other,su
 132 root      20   0 149M 1668 1280 S  0.0   0.0   0:00.00 snapfuse /var/lib/snapd/snaps/jq.6.snap /snap/jq/6 -o ro,nodev,allow_other,suid
 133 root      20   0 149M 1540 1408 S  0.0   0.0   0:00.01 snapfuse /var/lib/snapd/snaps/core.17212.snap /snap/core/17212 -o ro,nodev,allow_other,su
 134 root      20   0 441M 11068 1280 S  0.0   0.1   0:00.00 snapfuse /var/lib/snapd/snaps/snapd_24792.snap /snap/snapd/24792 -o ro,nodev,allow_other,
 135 root      20   0 441M 11068 1280 S  0.0   0.1   0:01.15 snapfuse /var/lib/snapd/snaps/snapd_24792.snap /snap/snapd/24792 -o ro,nodev,allow_other,
 136 root      20   0 149M 1284 1152 S  0.0   0.0   0:00.00 snapfuse /var/lib/snapd/snaps/snapd_24718.snap /snap/snapd/24718 -o ro,nodev,allow_other,
 137 root      20   0 441M 11068 1280 S  0.0   0.1   0:01.08 snapfuse /var/lib/snapd/snaps/snapd_24792.snap /snap/snapd/24792 -o ro,nodev,allow_other,
 138 root      20   0 149M 1284 1152 S  0.0   0.0   0:00.00 snapfuse /var/lib/snapd/snaps/snapd_24718.snap /snap/snapd/24718 -o ro,nodev,allow_other,
 139 root      20   0 149M 1284 1152 S  0.0   0.0   0:00.00 snapfuse /var/lib/snapd/snaps/snapd_24718.snap /snap/snapd/24718 -o ro,nodev,allow_other,
 191 systemd-re 20   0 21580 12672 10496 S  0.0   0.2   0:00.33 /usr/lib/systemd/systemd-resolved
```

mpstat -P ALL 1: CPU usage per core, every 1 second

```
yashil2@RT0070:~$ mpstat -P ALL 1
Linux 6.6.87.2-microsoft-standard-WSL2 (RT0070)      07/29/25      _x86_64_      (12 CPU)

08:44:32   CPU    %usr   %nice    %sys %iowait    %irq   %soft  %steal   %guest   %gnice   %idle
08:44:33   all     0.84    0.00    1.26    0.17    0.00    0.34    0.00    0.00    0.00   97.39
08:44:33     0     0.00    0.00    1.98    0.00    0.00    1.98    0.00    0.00    0.00   96.04
08:44:33     1     0.00    0.00    2.02    1.01    0.00    0.00    0.00    0.00    0.00   96.97
08:44:33     2     0.00    0.00    2.04    0.00    0.00    0.00    0.00    0.00    0.00   97.96
08:44:33     3     0.00    0.00    1.00    0.00    0.00    1.00    0.00    0.00    0.00   98.00
08:44:33     4     2.02    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00   97.98
08:44:33     5     0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00  100.00
08:44:33     6     2.00    0.00    3.00    0.00    0.00    0.00    0.00    0.00    0.00   95.00
08:44:33     7     0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00   99.00
08:44:33     8     1.00    0.00    2.00    1.00    0.00    0.00    0.00    0.00    0.00   96.00
08:44:33     9     4.04    0.00    1.01    0.00    0.00    0.00    0.00    0.00    0.00   94.95
08:44:33    10     0.00    0.00    1.02    0.00    0.00    0.00    0.00    0.00    0.00   98.98
08:44:33    11     1.02    0.00    1.02    0.00    0.00    0.00    0.00    0.00    0.00   97.96
```

Memory Monitoring

`free -h` → Displays total, used, and free memory in a human-readable format.

```
yashi12@RT0070:~$ free -h
```

	total	used	free	shared	buff/cache	available
Mem:	7.6Gi	1.6Gi	5.4Gi	15Mi	699Mi	5.9Gi
Swap:	2.0Gi	0B	2.0Gi			

`vmstat 1` → Shows system performance stats like memory, CPU, and IO every 1 second (5 times).

```
yashi12@RT0070:~$ vmstat 1
```

procs		-----memory-----				---swap--		-----io----		-system--				-----cpu-----			
r	b	swpd	free	buff	cache	si	so	bi	bo	in	cs	us	sy	id	wa	st	gu
0	0	0	5686840	1964	717260	0	0	649	200	1299	1	1	1	98	0	0	0
0	0	0	5686840	1980	717276	0	0	0	32	721	1290	0	0	99	0	0	0
0	0	0	5686248	1996	717364	0	0	72	608	2120	3122	1	1	98	0	0	0
0	0	0	5686392	2012	717360	0	0	0	56	728	1305	0	0	99	0	0	0
0	0	0	5688760	2028	717372	0	0	0	60	1730	2554	1	1	98	0	0	0
0	0	0	5688760	2044	717376	0	0	0	44	620	1147	0	0	99	0	0	0
0	0	0	5689196	2076	717400	0	0	0	180	1855	2802	1	1	98	1	0	0
0	0	0	5689196	2108	717360	0	0	0	148	831	1487	0	0	99	0	0	0
0	0	0	5689196	2124	717368	0	0	0	496	657	1187	0	0	100	0	0	0
0	0	0	5687740	2164	717400	0	0	52	64	2157	3115	1	2	97	0	0	0

Disk Usage

`df -h` → Shows disk space usage for all mounted filesystems in human-readable format.

```
yashi12@RT0070:~$ df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
none	3.8G	0	3.8G	0%	/usr/lib/modules/6.6.87.2-microsoft-standard-WSL2
none	3.8G	4.0K	3.8G	1%	/mnt/wsl
drivers	226G	191G	36G	85%	/usr/lib/wsl/drivers
/dev/sdd	1007G	16G	941G	2%	/
none	3.8G	84K	3.8G	1%	/mnt/wslg
none	3.8G	0	3.8G	0%	/usr/lib/wsl/lib
rootfs	3.8G	2.7M	3.8G	1%	/init
none	3.8G	964K	3.8G	1%	/run
none	3.8G	0	3.8G	0%	/run/lock
none	3.8G	1.1M	3.8G	1%	/run/shm
none	3.8G	76K	3.8G	1%	/mnt/wslg/versions.txt
none	3.8G	76K	3.8G	1%	/mnt/wslg/doc
C:\	226G	191G	36G	85%	/mnt/c
D:\	250G	40G	211G	16%	/mnt/d

`du -sh` → Displays the total disk space used by the current directory in a human-readable format.

```
yashi12@RT0070:~$ du -sh
```

5.1G

iostat -xz 1 → Detailed CPU and disk I/O statistics, updated every second.

```
yash12@RT0070:~$ iostat -xz 1
Linux 6.6.87.2-microsoft-standard-WSL2 (RT0070)      07/29/25      _x86_64_      (12 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           0.76    0.00   0.76   0.34   0.00   98.14

Device:            r/s    kB/s    rrqm/s    %rrqm r_await rareq-sz    w/s    kB/s    wrqm/s    %wrqm w_await wareq-sz    d/s    kB/s    drqm/s    %drqm d_await
t dareq-sz         f/s f_await aqu-sz   %util
sda  0.00    0.00    0.00    0.00    0.14  24.56    0.73   59.69    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0  0.00    0.00    0.00    0.00    0.03    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
sdb  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
sdc  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
sdd  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
4 2856.63   9.13   1.05   0.22   4.18  12.22    0.67   18.02   27.68  203.00   12.11   30.43    6.62    7.33    0.24   690.56    0.03   11.16    0.5

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           0.42    0.00   1.59   0.92   0.00   97.07

Device:            r/s    kB/s    rrqm/s    %rrqm r_await rareq-sz    w/s    kB/s    wrqm/s    %wrqm w_await wareq-sz    d/s    kB/s    drqm/s    %drqm d_await
t dareq-sz         f/s f_await aqu-sz   %util
sda  15.00   400.00    0.00    0.00    0.60  26.67    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0  0.00    0.00    0.00    0.01    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
sdb   3.00   112.00    0.00    0.00    0.67  37.33    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
sdd  112.00  4036.00    0.00    0.00    0.84  36.04   12.00   64.00    7.00   36.84    2.25    5.33    0.00    0.00    0.00    0.00    0.00    0.00
0  0.00    8.00    1.00   0.13   9.60
```

Network Monitoring

ifconfig → Displays network interfaces and IP addresses (legacy).

```
yash12@RT0070:~$ ifconfig
br-7fccde0e963d: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.0.0 broadcast 10.0.2.255
    inet6 fe80::2880:59ff:fe38:982f prefixlen 64 scopeid 0x20<link>
    ether 2a:80:59:38:98:2f txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

br-dc946a7a5e0b: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 10.0.2.16 netmask 255.255.0.0 broadcast 10.0.2.255
    ether d2:eb:fb:64:0f:57 txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

docker0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.0.255
    ether 6e:62:8e:d4:d1:e2 txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

netstat -tulnp → Lists open ports and services listening on them.

```
yashi12@RT0070:~$ netstat -tulnp
(Not all processes could be identified, non-owned process info
 will not be shown, you would have to be root to see it all.)
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:80             0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.53:53          0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:5432           0.0.0.0:*               LISTEN      -
tcp        0      0 10.255.255.254:53      0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.54:53          0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:8080           0.0.0.0:*               LISTEN      -
tcp6       0      0 :::9090                :::*                    LISTEN      -
tcp6       0      0 :::9092                :::*                    LISTEN      -
tcp6       0      0 :::9093                :::*                    LISTEN      -
tcp6       0      0 :::9100                :::*                    LISTEN      237/node_exporter
tcp6       0      0 :::4646                :::*                    LISTEN      -
tcp6       0      0 :::4647                :::*                    LISTEN      -
tcp6       0      0 :::4648                :::*                    LISTEN      -
tcp6       0      0 :::33523               :::*                    LISTEN      -
tcp6       0      0 :::5432                :::*                    LISTEN      -
tcp6       0      0 :::3000                :::*                    LISTEN      -
tcp6       0      0 :::8080                :::*                    LISTEN      -
udp        0      0 127.0.0.54:53          0.0.0.0:*               -
udp        0      0 127.0.0.53:53          0.0.0.0:*               -
udp        0      0 10.255.255.254:53      0.0.0.0:*               -
udp        0      0 127.0.0.1:323          0.0.0.0:*               -
udp6       0      0 :::4648                :::*                    -
udp6       0      0 :::1:323               :::*                    -
```

ss -tulwn → Faster alternative to netstat for socket statistics.

```
yashi12@RT0070:~$ ss -tulwn
Netid      State      Recv-Q     Send-Q     Local Address:Port      Peer Address:Port      Process
udp        UNCONN     0           0           127.0.0.54:53           0.0.0.0:*               -
udp        UNCONN     0           0           127.0.0.53%lo:53        0.0.0.0:*               -
udp        UNCONN     0           0           10.255.255.254:53       0.0.0.0:*               -
udp        UNCONN     0           0           127.0.0.1:323          0.0.0.0:*               -
udp        UNCONN     0           0           *:4648                  *:.*                     -
udp        UNCONN     0           0           [::]:323                [::]:.*                  -
tcp        LISTEN     0           511         0.0.0.0:80             0.0.0.0:*               -
tcp        LISTEN     0           4096        127.0.0.53%lo:53        0.0.0.0:*               -
tcp        LISTEN     0           200         0.0.0.0:5432           0.0.0.0:*               -
tcp        LISTEN     0           1000        10.255.255.254:53       0.0.0.0:*               -
tcp        LISTEN     0           4096        127.0.0.54:53          0.0.0.0:*               -
tcp        LISTEN     0           4096        0.0.0.0:8080           0.0.0.0:*               -
tcp        LISTEN     0           50           *:9090                  *:.*                     -
tcp        LISTEN     0           50           *:9092                  *:.*                     -
tcp        LISTEN     0           4096        *:9100                  *:.*                     -
tcp        LISTEN     0           4096        *:4646                  *:.*                     -
tcp        LISTEN     0           4096        *:4647                  *:.*                     -
tcp        LISTEN     0           4096        *:4648                  *:.*                     -
tcp        LISTEN     0           50           *:33523                 *:.*                     -
tcp        LISTEN     0           200         [::]:5432               [::]:.*                  -
tcp        LISTEN     0           4096        *:3000                  *:.*                     -
tcp        LISTEN     0           4096        [::]:8080               [::]:.*                  -
```

Process and Load

Uptime → Shows system uptime and average load over the last 1, 5, and 15 minutes.

```
yashi12@RT0070:~$ uptime
09:12:17 up 1:10, 1 user, load average: 0.13, 0.18, 0.18
```

W → Shows who is logged in and what they are doing.

```
yashi12@RT0070:~$ w
09:12:49 up 1:11, 1 user, load average: 0.08, 0.16, 0.17
USER      TTY      FROM            LOGIN@      IDLE        JCPU       PCPU       WHAT
yashi12   pts/1    -                07:16       1:56m      0.11s      0.08s      -bash
```

Ps aux → Lists all running processes along with their CPU and memory usage.

```
yashil2@RT0870:~$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.3  0.1  21940 12504 ?        Ss   08:01   0:15 /sbin/init
root           2  0.0  0.0   3060  1664 ?        SL   08:01   0:00 /init
root           7  0.0  0.0   3076  1916 ?        SL   08:01   0:00 plan9 --control-socket 7 --log-level 4 --server-fd 8 --pipe-fd 10 --log-truncate
root          65  0.2  0.5 108240 41428 ?        S<s  08:01   0:08 /usr/lib/systemd/systemd-journald
root         113  0.0  0.0  25400  6272 ?        Ss   08:01   0:00 /usr/lib/systemd/systemd-udev
root         128  0.0  0.0 153068  1668 ?        Ssl  08:01   0:00 snapfuse /var/lib/snapd/snaps/jq_6.snap /snap/jq/6 -o ro,nodev,allow_other,suid
root         129  0.0  0.0 152936  1540 ?        Ssl  08:01   0:00 snapfuse /var/lib/snapd/snaps/core_17212.snap /snap/core/17212 -o ro,nodev,allow_other,su
root         134  0.1  0.1 451992 11068 ?        Ssl  08:01   0:06 snapfuse /var/lib/snapd/snaps/snapd_24792.snap /snap/snapd/24792 -o ro,nodev,allow_other,
root         136  0.0  0.0 152936  1412 ?        Ssl  08:01   0:00 snapfuse /var/lib/snapd/snaps/snapd_24718.snap /snap/snapd/24718 -o ro,nodev,allow_other,
systemd+      191  0.0  0.1  21580 12672 ?        Ss   08:01   0:00 /usr/lib/systemd/systemd-resolved
systemd+      207  0.0  0.0  91020  7680 ?        Ssl  08:01   0:00 /usr/lib/systemd/systemd-timesyncd
root          226  0.0  0.0   4236  2432 ?        Ss   08:01   0:00 /usr/sbin/cron -f -P
message+      227  0.0  0.0   9640  4864 ?        Ss   08:01   0:04 @dbus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation --sysl
yashil2       237  0.1  0.2 1241696 18992 ?        Ssl  08:01   0:08 /opt/node_exporter/node_exporter
root          238  2.0  1.3 2508868 107904 ?       Ssl  08:01   1:30 /usr/bin/nomad agent -dev -bind=0.0.0.0
root          244  0.2  1.1 1735308 91992 ?        Ssl  08:01   0:08 /opt/prometheus/prometheus --config.file=/opt/prometheus/prometheus.yml --storage.tsdb.pa
```

Glances → Comprehensive system monitoring tool covering CPU, memory, disk, network, and more.

```
RT0870 (Ubuntu 24.04 64bit / Linux 6.6.87.2-microsoft-standard-WSL2) Uptime: 1:14:40

12th Gen Intel(R) Core(TM) i7-1255U CPU - 0.8% idle 99.0% ctx_sw 2K MEM - 23.8% active 279M SWAP - 0.0% LOAD - 12core
CPU [ 0.8%] user 0.5% iwr 0.0% inter 1K total 7.58G inacti 1.92G total 2.00G 1 min 0.46
MEM [ 23.8%] system 0.3% nice 0.0% sw_int 561 used 1.88G buffer 17.7M used 0 5 min 0.24
SWAP [ 0.0%] iowait 0.1% steal 0.0% free 5.77G cached 1.01G free 2.00G 15 min 0.20

NETWORK Rx/s Tx/s CONTAINERS 1 sorted by CPU consumption
br-7fccde0e963d 0b 0b
eth0 0b 0b
lo 3Kb 3Kb
veth2224136 0b 0b

Name Status Uptime CPU% MEM/MAX IOR/s IOW/s Rx/s Tx/s Command
localtest-keycloak-1 running 2 hours 0.4 524M/7.58G 0B 0B 0b 0b /opt/keycloak/bin/kc.sh

TASKS 61 (384 thr), 1 run, 60 slp, 0 oth Threads sorted automatically by CPU consumption
CPU% MEM% VIRT RES PID USER TIME+ THR NI S R/s W/s Command ('e' to pin | 'k' to kill)
>1.5 1.4 2.39G 105M 238 root 1:32 17 0 S ? ? nomad agent -dev -bind=0.0.0.0
0.0 1.0 5.3 8.61G 415M 1543 kafka 2:06 106 0 S ? ? java -Xmx1G -Xms1G -XX:+UseG1GC -XX:MaxGCPau
0.0 0.0 0.0 0.0 73890 yashil2 0:00 2 0 R 0 0 python3 /usr/bin/glances
0.36 22 0 S ? ? grafana server --config=/etc/grafana/grafana
0.05 17 0 S ? ? dockerd -H fd:// --containerd=/run/container
0.08 1 -1 S ? ? systemd-journald
1:04 59 0 S ? ? java -Dkc.config.built=true -Djava.util.conc
0.09 17 0 S ? ? prometheus --config.file=/opt/prometheus/pro
0.08 11 0 S ? ? containerd
python3 /usr/bin/glances -s -B 127.0.0.1
0.02 16 0 S ? ? snapd
0.00 1 0 S ? ? postgres -D /var/lib/postgresql/17/main -c c
0.00 2 0 S ? ? python3 /usr/share/unattended-upgrades/unatt
0.08 7 0 S 0 0 node_exporter
0.00 4 0 S ? ? packagekitd
0.00 12 0 S ? ? containerd-shim-runc-v2 --namespace moby -id
0.00 1 0 S ? ? systemd-resolved
0.16 1 0 S ? ? init
0.06 7 0 S ? ? snapfuse /var/lib/snapd/snaps/snapd_24792.sn
0.00 8 0 S ? ? wsl-pro-service -vv
0.00 1 0 S ? ? systemd --user
0.00 1 0 S ? ? postgres: 17/main: walwriter
0.00 1 0 S ? ? postgres: 17/main: autovacuum launcher
0.01 1 0 S ? ? systemd-logind

2025-07-29 09:16:11 UTC
```