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| **DOCUMENT RULES:** | |
| **Task name** | **The top command** |
| **Task name & column name should be written:** | **Bold (CTRL+B)** |
| **Commands should be written in the after # sign:** | *Italic (CTRL+I) #hostname* |
| **Output photo should be cropped or compressed:**  **Photo could be more than one:**  **If you need extra lines, add the line next after it:** | ***Description photo should be with title bar (CTRL + I + B)*** |
| **All other text should be written:** | Standard |
| **Font name and text size:** | Calibri and 9 |
| **Group name:** | Dev\_ops\_1 |
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| **Task names** | **Command steps and outputs** |
| **First line**  top - **program name** 19:38:28 - **current hour, obvious :)** up 2 days, 20:47 - **uptime. Another words, the time from last start of the system.** 0 users - **number of *active* users** | top  Graphical user interface, text  Description automatically generated |
| **to quit the** top: | q |
| **This command shows logged users too, but the first line is exactly the same like in**top. | w  Graphical user interface, text  Description automatically generated |
| Second line Tasks: 6 total, 1 running, 5 sleeping, 0 stopped, 0 zombie | * total - **shows all processes in the system** * running **- currently active processes. It means, these processes are using CPU right now** * sleeping - **generally - process is waiting for something. It may be I/O operation for example.** * stopped **- Stopped processes (for example by ctrl+z)** * zombie - **Very important state to understand. It is a process which had finish his job but still has entry in the process table. In simple way, these processes are waiting for** exit(). |
| **Third line**  %Cpu(s): 13.9 us, 9.5 sy, 0.0 ni, 76.3 id, 0.0 wa, 0.4 hi, 0.0 si, 0.0 st | * us - **user - All user processes are combined in this number. So, our sessions too**. * sy - **system - processes owned by system (kernel)** * ni – **nice - allows us to change the priority of the process**. * id - **idle - idle time means that the system is bored and do nothing**. * wa - **iowait - the number repspresents the time (which is a subset of idle time) when the process is waiting for input/output operation.** * hi - **hardware interrupts**. si - **software interrupts.** * st - **steal time - how long our system needs to wait for resources from hypervisor.** |
| Graphical user interface, text  Description automatically generated | * PID - **Process ID number. It is unique number of the process in the system**. * USER - **process' owner. The process is started by this user.** * PR - **default priority of the process, scheduled by kernel when process was started.** * NI - **nice. Shows the value, if nice was performed against the process**. * VIRT - **total amount of memory used by the process.** * RES - **RAM memory used by process.** * SHR - **amount of memory shared with other processes.** * S - **process state (we discussed it above).** * %CPU - **what amount of available CPU is used by the process.** * %MEM - **like for CPU, but this value represents memory usage.** * TIME+ - **total time of CPU usage by the process.** * COMMAND - **quite obvious, this process is executed.** |
| CPU and memory list **Hit** 1  **And again** 1  **And again** 1 . | Graphical user interface, text  Description automatically generated |
| **Press** t **couple of times and then**  m , **also couple of times. Observe, how the CPU or memory visualisation is changing.** |  |
| **Switch to order by memory usage. In order to do it, press**  M . |  |
| N **we will look on the list sorted by PID.** |  |
| **we can come back to CPU usage sort, by pressing** P |  |
| **We can switch it to threads by pressing** H |  |
| **By pressing** c **we can change between simple name of the command and the full path.** |  |
| **Press** n **in order to limit the number of shown processes / threads.** |  |
| **With** s **we can change the refresh rate.** |  |
| **we can kill the process using** top. **In order to do so, press** k |  |
| **Save the changes with** W  **It will be written in the** toprc **file in the home directory** |  |
| **Let's see this file.**  cat .config/procps/toprc  **And now run the**top **again**. | Graphical user interface, text  Description automatically generated |
| top -c **will show the full paths**. |  |
| top -u root **will show the processes owned by root user.** | Graphical user interface, text  Description automatically generated |