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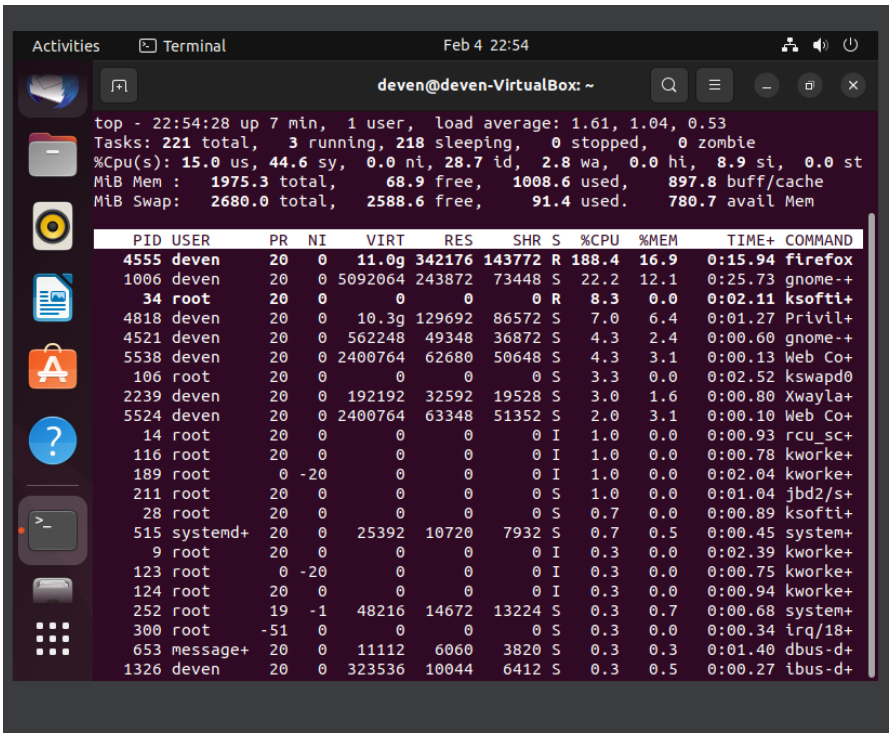
CS 470 Lab 3

Lab 3 Running C code in Ubuntu

1. Given the example snippet of C code, there will be three processes created upon the execution of the program.
2. The process at the top of the display becomes Firefox; it consumes about 1-4% of the allotted CPU and between 11-20% of memory. As can be seen in the image below:

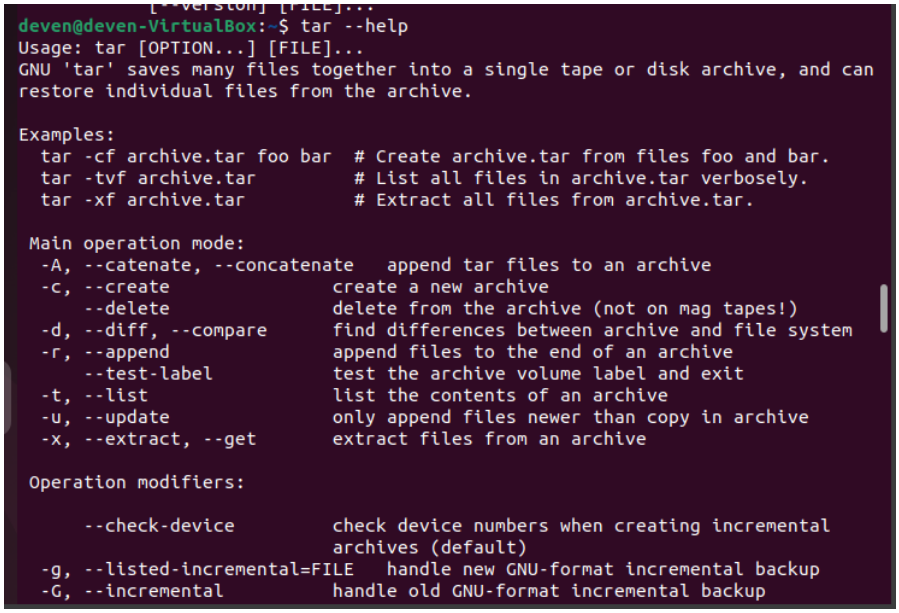


3. Based once again on the image above and the statistics of when I made the virtual machine, I have 1975.3 Mib Memory
4. At present it is still Firefox that is taking up the most CPU resources along with gnome++ and ksofti+
5. Firefox routinely takes up the most memory while no other user processes are running
6. Explaining the following commands according to the explanation given in the terminal:
    a. Apt-get: Is a command line interface for retrieval of packages and information about them from authenticated sources and for installation, upgrade, and removal of packages together with their dependencies.
    b. Yum is the primary tool for getting, installing, deleting, querying, and managing Red hat Enterprise Linux RPM software packages.

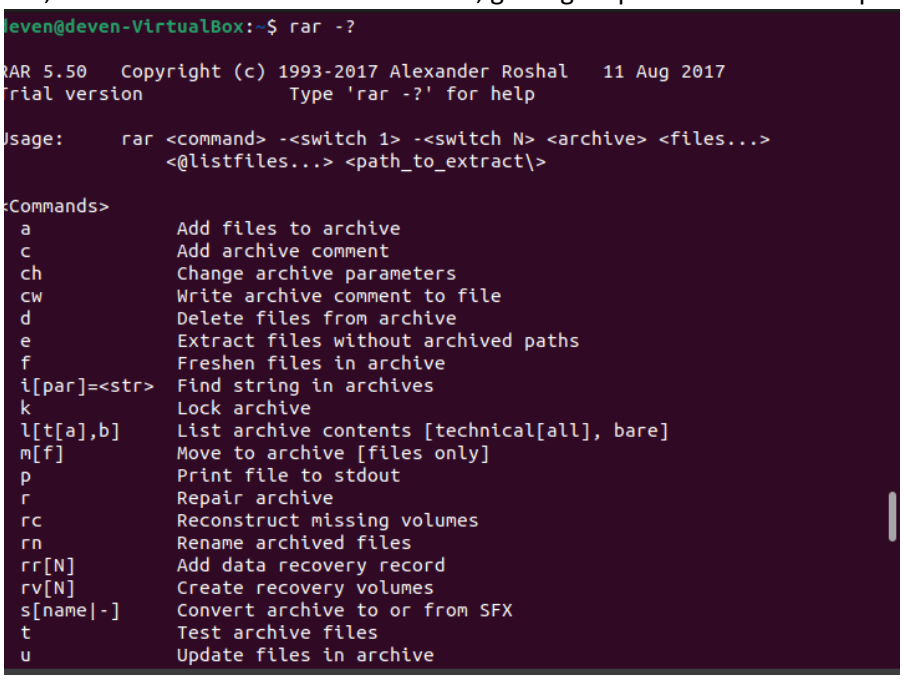
c. A non-interactive network retriever. It is a command line tool that makes it possible to download files and interact with REST API's

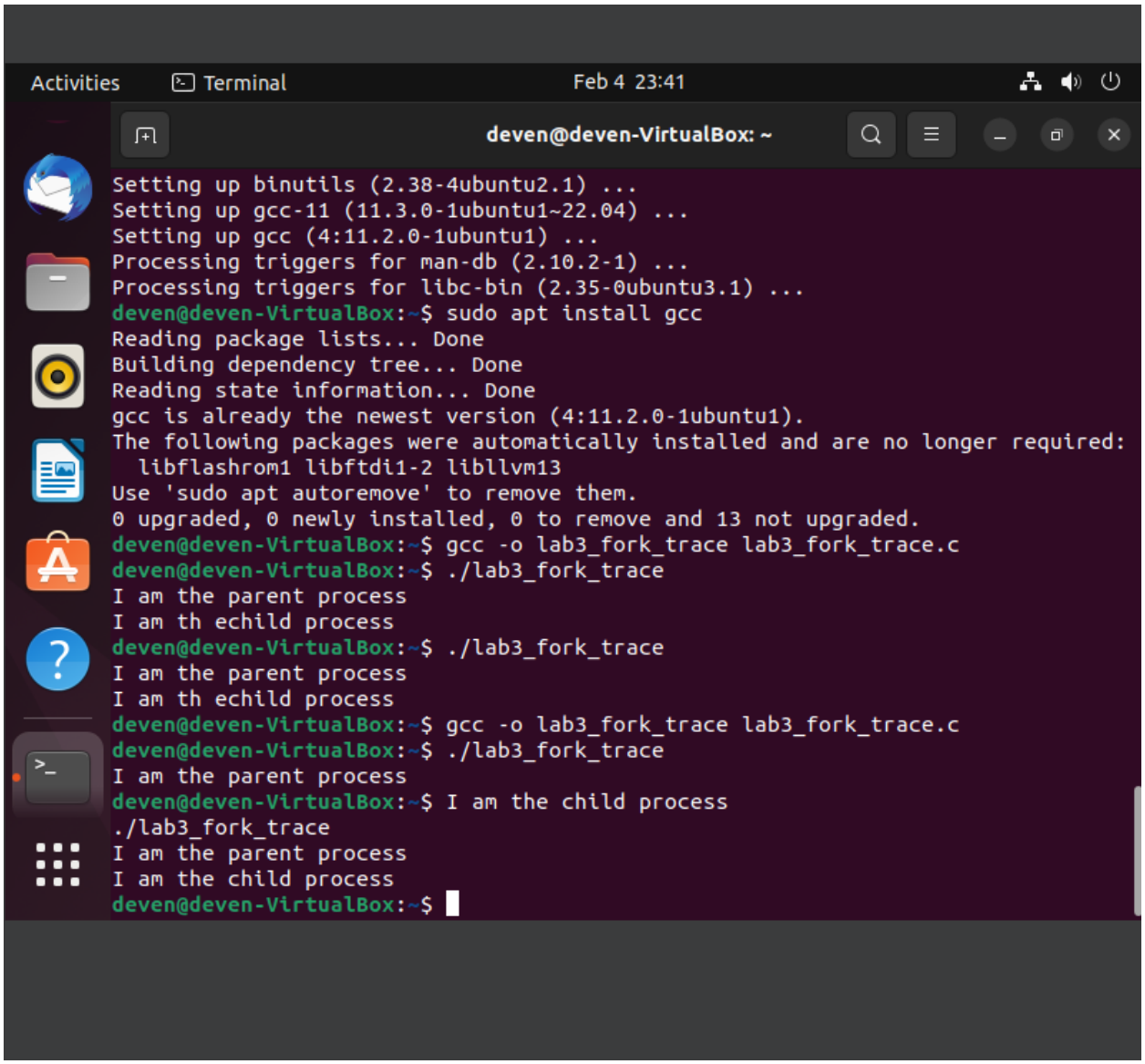
d. Gzip did not pull up on my system; however, doing some research I found that it is a file format and a software application used for compression and decompression.

e. Tar; GNU 'tar' saves many files together into a single tape or disk archive, and can restore individual files from the archive



f. Rar; used to work with archives in Linux, getting help from the terminal provides this:



1. 
Activities
Terminal
Feb 4 23:41
deven@deven-VirtualBox: ~
Setting up binutils (2.38-4ubuntu2.1) ...
Setting up gcc-11 (11.3.0-1ubuntu1~22.04) ...
Setting up gcc (4:11.2.0-1ubuntu1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
deven@deven-VirtualBox:~$ sudo apt install gcc
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
gcc is already the newest version (4:11.2.0-1ubuntu1).
The following packages were automatically installed and are no longer required:
libflashrom1 libftdi1-2 libllvm13
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
deven@deven-VirtualBox:~$ gcc -o lab3_fork_trace lab3_fork_trace.c
deven@deven-VirtualBox:~$ ./lab3_fork_trace
I am the parent process
I am th echild process
deven@deven-VirtualBox:~$ ./lab3_fork_trace
I am the parent process
I am th echild process
deven@deven-VirtualBox:~$ gcc -o lab3_fork_trace lab3_fork_trace.c
deven@deven-VirtualBox:~$ ./lab3_fork_trace
I am the parent process
deven@deven-VirtualBox:~$ I am the child process
./lab3_fork_trace
I am the parent process
I am the child process
deven@deven-VirtualBox:~$