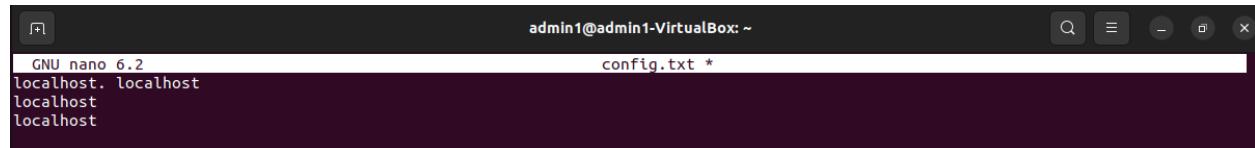


MODULE 2

- 1) Use the appropriate command to list all files larger than 1 MB in the current directory and save the output to a file.

```
admin1@admin1-VirtualBox:~$ find . -type f -size +1M > large_file.txt
admin1@admin1-VirtualBox:~$ cat large_file.txt
./.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%2Ftracker%23Pictures.db
./.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%2Ftracker%23Audio.db
./.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%2Ftracker%23Software.db
./.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%2Ftracker%23Video.db
./.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%2Ftracker%23FileSystem.db
./.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fontology%2Fv3%2Ftracker%23Documents.db
./.cache/tracker3/files/meta.db
./.cache/mesa_shader_cache/index
./snap/firefox/common/.mozilla/firefox/suzs2xvi.default/gmp-gmpopenh264/1.8.1.2/libgmpopenh264.so
./snap/firefox/common/.mozilla/firefox/suzs2xvi.default/places.sqlite
./snap/firefox/common/.mozilla/firefox/suzs2xvi.default/favicons.sqlite
./snap/firefox/common/.mozilla/firefox/suzs2xvi.default/storage/permanent/chrome/idb/3870112724rsegmnoittet-es.sqlite
./snap/firefox/common/.cache/mesa_shader_cache/index
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/startupCache/scriptCache.bin
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/startupCache/scriptCache-current.bin
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/startupCache/scriptCache-child-current.bin
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/startupCache/startupCache.8.little
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/startupCache/scriptCache-child.bin
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/safebrowsing/google4/goog-phish-proto.vlpset
./snap/firefox/common/.cache.mozilla/firefox/suzs2xvi.default/safebrowsing/google-trackwhite-digest256.vlpset
admin1@admin1-VirtualBox:~$
```

- 2) Replace all occurrences of "localhost" with "127.0.0.1" in a configuration file named config.txt, and save the updated file as updated_config.txt.



```
GNU nano 6.2
config.txt *
localhost
localhost
localhost
```

```
admin1@admin1-VirtualBox:~$ nano config.txt
admin1@admin1-VirtualBox:~$ sed 's/localhost/127.0.0.1/g' config.txt >updated_config.txt
admin1@admin1-VirtualBox:~$ cat updated_config.txt
127.0.0.1. 127.0.0.1
127.0.0.1
127.0.0.1
```

- 3) Use the appropriate command to search for lines containing the word "ERROR" in a log file but exclude lines containing "DEBUG". Save the results to a file named filtered_log.txt.

log:

DEBUG: Starting the application initialization.

ERROR: Unable to connect to the database.

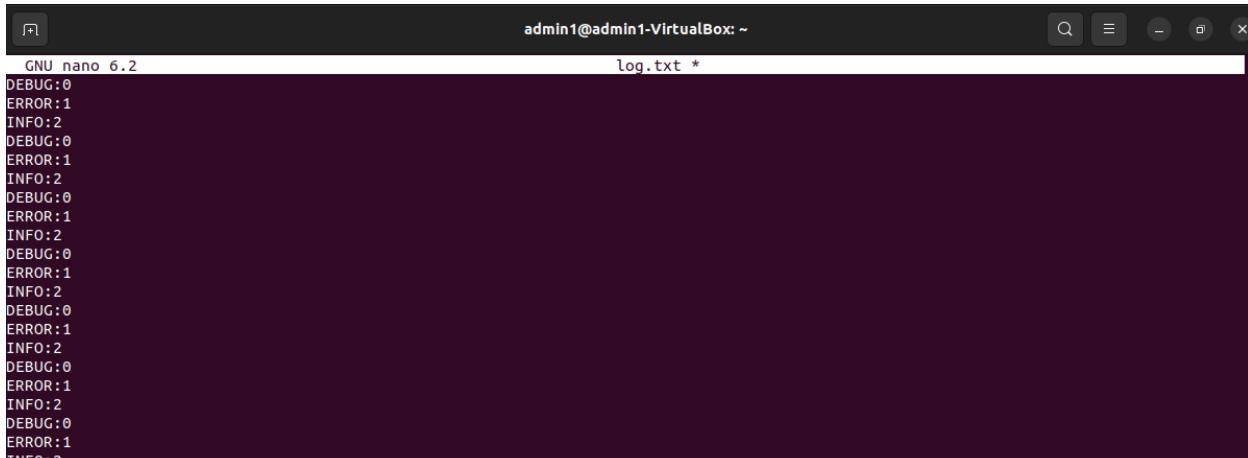
INFO: User 'admin' logged in successfully.

DEBUG: Fetching configuration settings from the server.

ERROR: DEBUG - Configuration settings could not be applied.

INFO: Scheduled job 'backup' completed successfully.

DEBUG: Connection to server timed out. Retrying...
ERROR: Failed to fetch data from API endpoint '/users'.
INFO: Maintenance mode activated.
ERROR: DEBUG - Query execution failed due to a syntax error.
DEBUG: Reloading application modules.
ERROR: Missing required parameter in the request.
INFO: Shutting down the system gracefully.
DEBUG: Closing unused network connections.
ERROR: DEBUG - Unexpected server response received.



The screenshot shows a terminal window titled "admin1@admin1-VirtualBox: ~". The window contains two panes. The top pane displays the contents of a file named "log.txt" using the nano editor. The bottom pane shows the command-line history used to process the log file:

```
admin1@admin1-VirtualBox:~$ nano log.txt
admin1@admin1-VirtualBox:~$ grep "ERROR" log.txt | grep -v "DEFAULT" >search.txt
admin1@admin1-VirtualBox:~$ cat search.txt
```

The output of the "cat search.txt" command shows the following errors:

```
ERROR:1
ERROR:1
ERROR:1
ERROR:1
ERROR:1
ERROR:1
ERROR:1
```

4) Write a code to identify the process with the highest memory usage and then terminate it.

```
admin1@admin1-VirtualBox:~$ ps aux --sort=-%mem | head -n 5
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START  TIME COMMAND
admin1     1413 13.9  4.5 4511492 350956 ?      Ssl  11:33  2:52 /usr/bin/gnome-shell
admin1     1969  0.0  1.0 528816 81128 ?      Ssl  11:34  0:00 /usr/libexec/gsd-xsettings
admin1     1965  0.5  0.8 205696 66240 ?      S    11:34  0:06 /usr/bin/Xwayland :0 -rootless -noreset -accessx -core -auth /run/user/1000/.mutter-Xwaylandauth.WBS433 -listen 4 -listen 5 -displayfd 6 -initfd 7
admin1     1697  0.0  0.8 814736 64260 ?      Sl   11:34  0:00 /usr/libexec/evolution-data-server/evolution-alarm-notify
```

```
admin1@admin1-VirtualBox:~$ sleep 50&
[1] 5392
admin1@admin1-VirtualBox:~$ ps aux | grep sleep
admin1      5392  0.0  0.0  8368  1920 pts/0    S     11:57   0:00 sleep 50
admin1      5394  0.0  0.0  9076  2560 pts/0    S+    11:57   0:00 grep --color=auto sleep
admin1@admin1-VirtualBox:~$ kill 5392
[1]+  Terminated                  sleep 50
```

5) Use the networking tool command and print all the gateway available in asorted manner

```
admin1@admin1-VirtualBox:~$ ip route
default via 10.0.2.2 dev enp0s3 proto dhcp metric 100
10.0.2.0/24 dev enp0s3 proto kernel scope link src 10.0.2.15 metric 100
169.254.0.0/16 dev enp0s3 scope link metric 1000
admin1@admin1-VirtualBox:~$ ip route | grep default | sort
default via 10.0.2.2 dev enp0s3 proto dhcp metric 100
admin1@admin1-VirtualBox:~$ ip route | grep default | awk '{print $3}' |sort
10.0.2.2
```