Module: R0: The Missing Semester
Section: Data Wrangling **Task:** 04

Task:

Find your average, median, and max system boot time over the last ten boots. Use journalctl on Linux, and look for log timestamps near the beginning and end of each boot. On Linux, they may look something like:

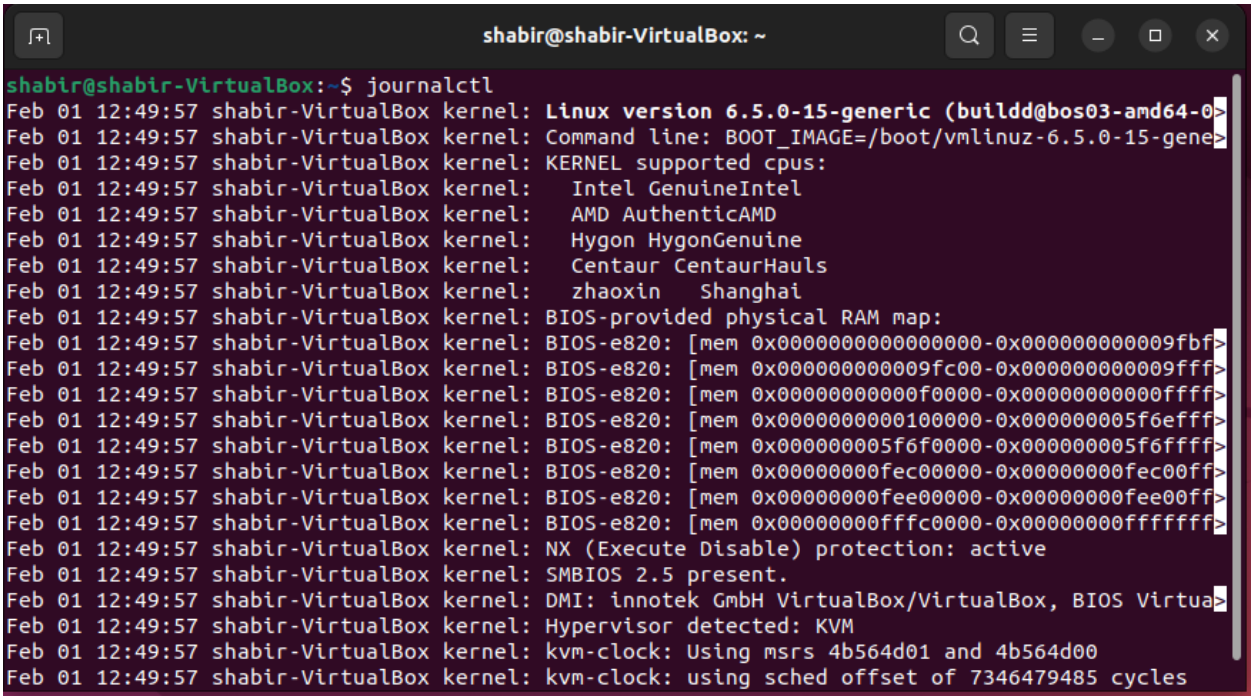
Logs begin at ...

and

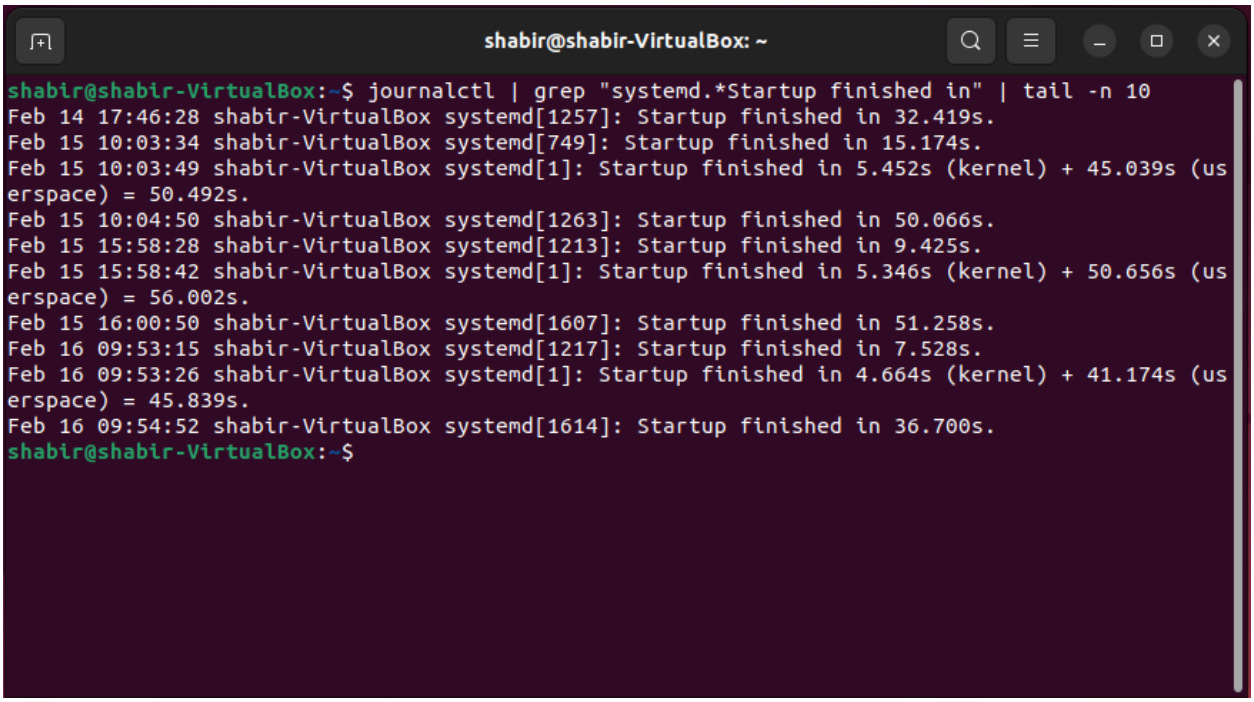
systemd[577]: Startup finished in ...

Explanation:

To get the system log data, I have used the command ***journalctl*** in the shell. The output is shown below,



To get the system boot time, I have used the grep command with pipelining of journalctl. The command I have used ***journalctl | grep "systemd.*Startup finished in | tail –n 10". tail –n 10*** is used as I am only interested in the last 10 boots. The output of that command is shown below,



Since I need the boot time which is listed on the end of each line. As the in the first line (32.419s.) is the boot time. So I used the the awk command to get the end of each line. Since I need only the numeric number, I remove the (dot and s) from the end of the line. The command I have used ***journalctl | grep systemd.*Startup finished in | tail -n 10 | awk '{sub(/s\.$/, ,); print }'.*** The output is shown below,

To get average, median and mode of that boot time I have used R programming language to extract this data, and write a small script to get the summary of this data. The command I used on the terminal which gives me average, mean, median, and mode is ***journalctl | grep systemd.*Startup finished in | tail -n 10 | awk '{sub(/s\.$/, ,); print }' | R --slave -e 'x <- scan(file=stdin, quiet=TRUE); summary(x)'.*** The output is shown below,