Log analysis with awk and sed

Tasks:

Extract all unique IP addresses using awk.

Count how many times each IP occurs and sort by frequency (descending).

Using sed, remove all lines containing DEBUG or TRACE.

Replace all timestamps of format YYYY-MM-DD with DATE_REMOVED.

Save cleaned logs into cleaned.log.

To cpoy from local system to docker container

```
docker cp ~/Downloads/server.log 4d5a5bdcfbb7:/server.log
```

Extract all unique IP addresses using awk.

```
-> awk '{print $NF}' server.log | grep -E '([0-9]{1,3}\.){3}[0-9]{1,3}' | sort –u
```

Count how many times each IP occurs and sort by frequency (descending).

```
-> awk '{print $NF}' server.log | grep -E '([0-9]{1,3}\.){3}[0-9]{1,3}' | sort | uniq -c | sort -nr
```

Using sed, remove all lines containing DEBUG or TRACE.

```
-> sed –i -e '/DEBUG/d' -e '/TRACE/d' server.log
```

OR

```
-> sed –i ‘/DEBUG/d;/TRACE/d’ server.log
```

Replace all timestamps of format YYYY-MM-DD with DATE_REMOVED.

```
-> sed -E 's/[0-9]{4}-[0-9]{2}-[0-9]{2}/DATE_REMOVED/' server.log > cleaned.log
```