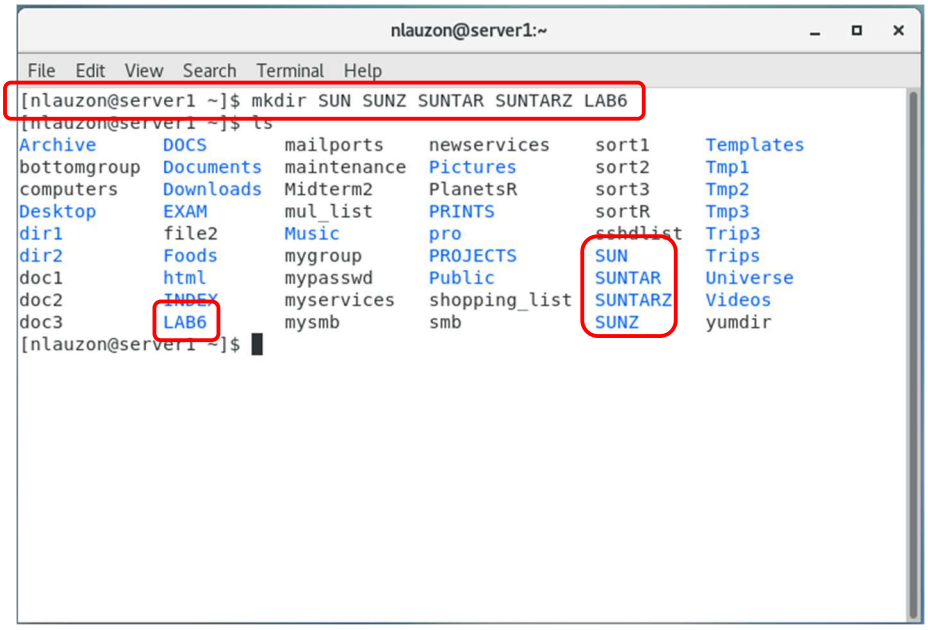
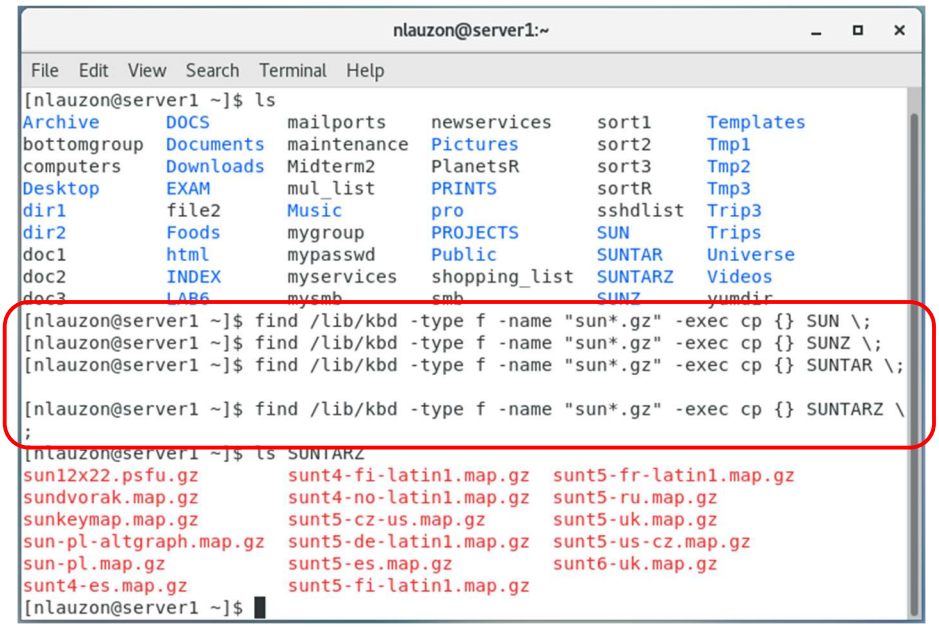
Archive and Compression 1

Nicolas Lauzon

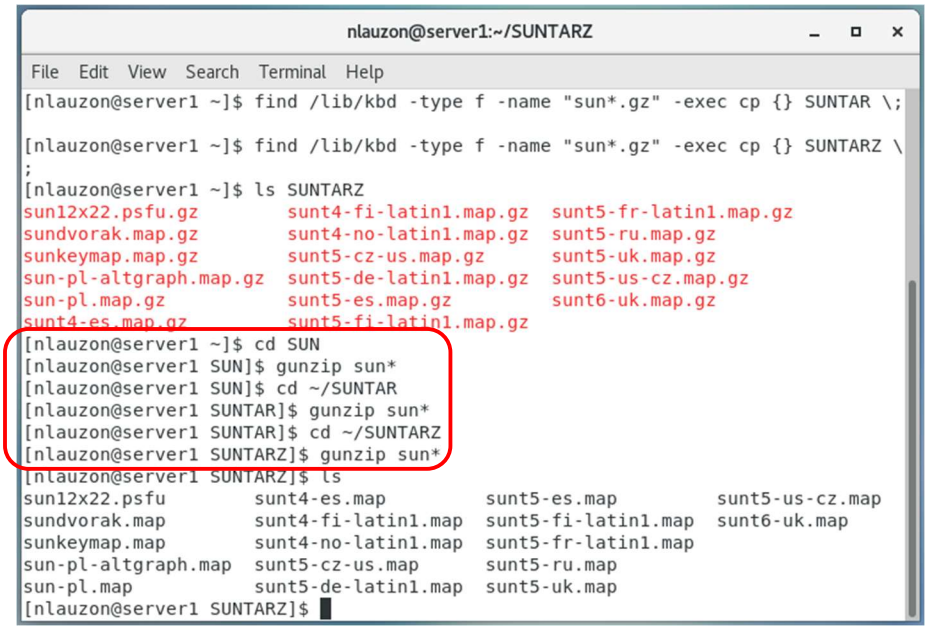
1. **On your home directory, create 5 new directories named SUN, SUNZ, SUNTAR, SUNTARZ and LAB6**



2. **Find all the files starting with "sun" and ending in ".gz" under the /lib/kbd directory then copy them to your directories SUN, SUNZ, SUNTAR and SUNTARZ**

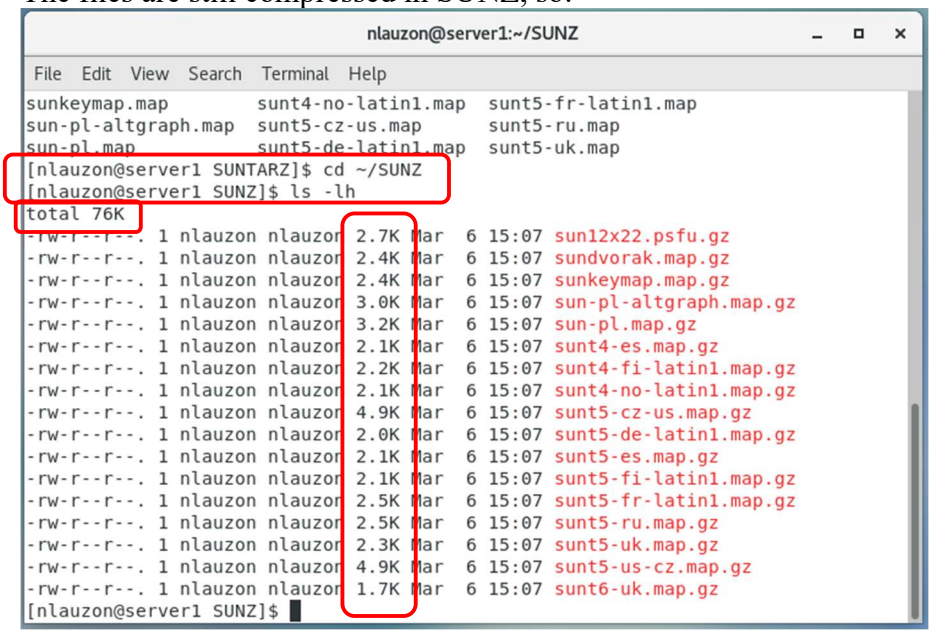


3. Decompress all the files of the directories SUN, SUNTAR and SUNTARZ

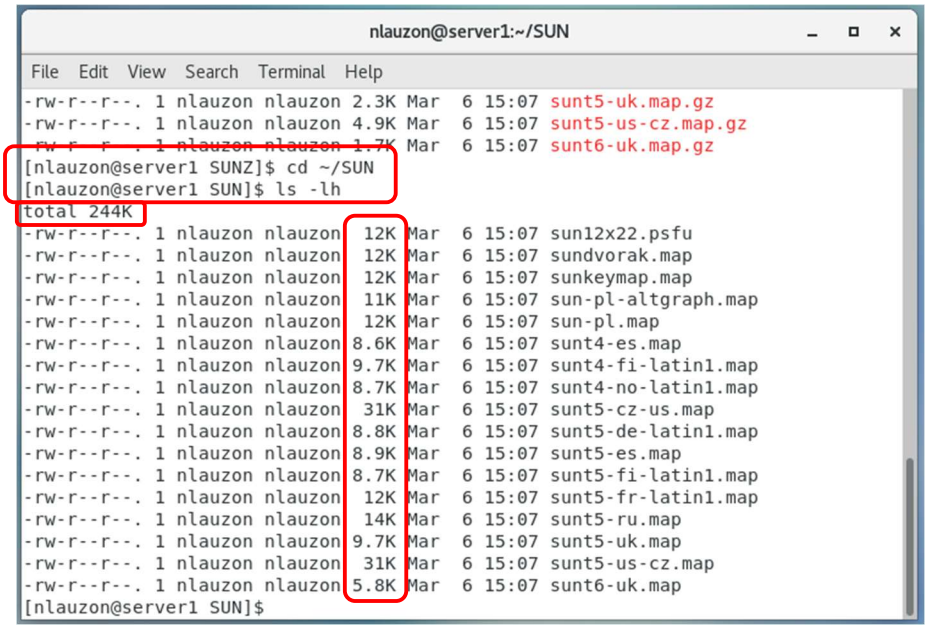


4. Compare the size of compressed files with the decompressed ones

The files are still compressed in SUNZ, so:

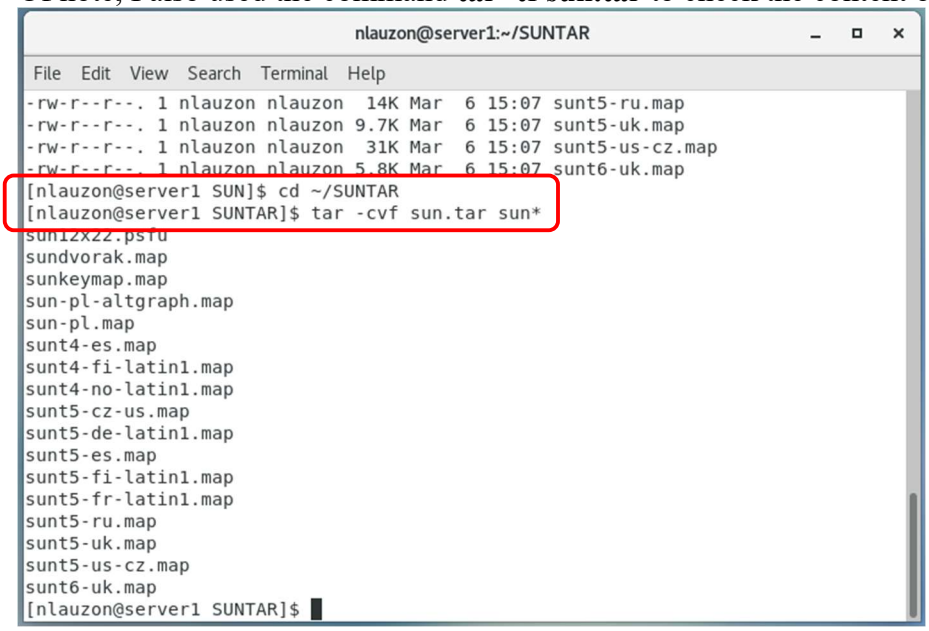


While the files are decompressed in SUN, and are 3 to 4 times larger than the compressed format:



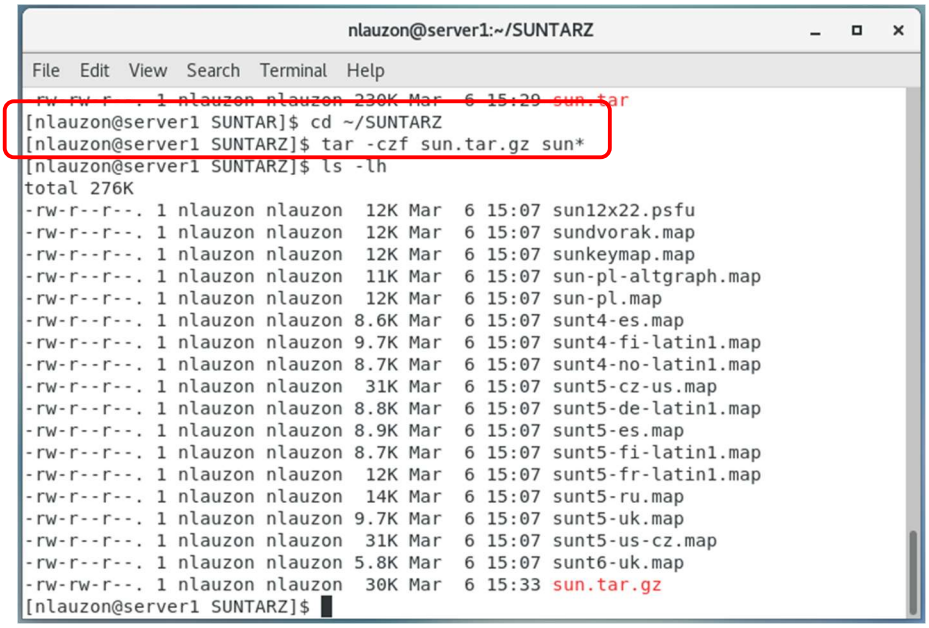
5. **Archive all the files located in the directory SUNTAR to a file named sun.tar (inside of SUNTAR directory)**

Of note, I also used the command **tar -tf sun.tar** to check the content of the archived file.



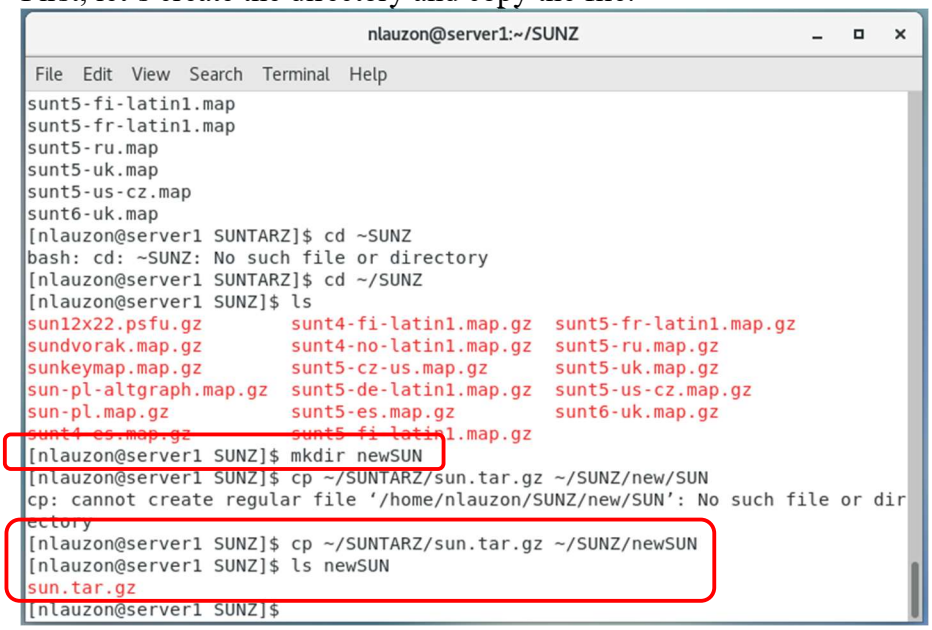
6. **Archive and compress all the files located in the directory SUNTARZ to a file named sun.tar.gz**

Of note, I also used the command **tar -tf sun.tar.gz** to check the content of the compressed archive file.

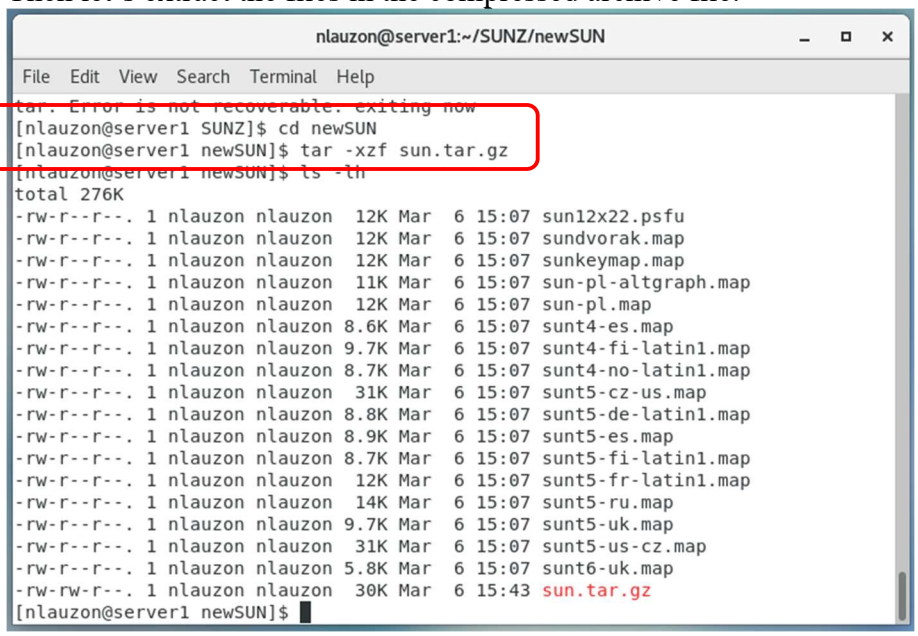


7. **Create a new directory named newSUN under SUNZ directory (SUNZ/newSUN) Copy the new file sun.tar.gz to the new directory newSUN then extract it.**

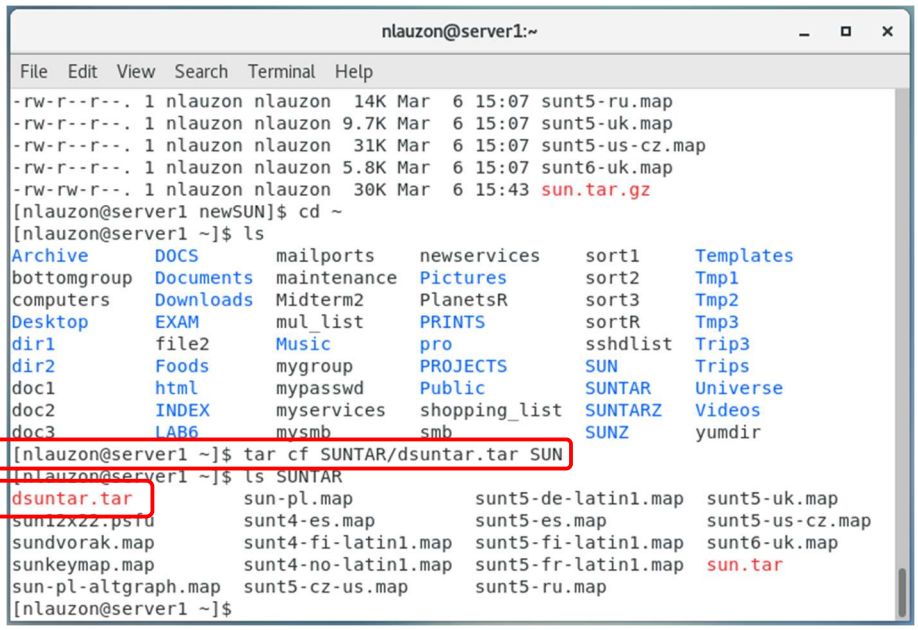
First, let's create the directory and copy the file:



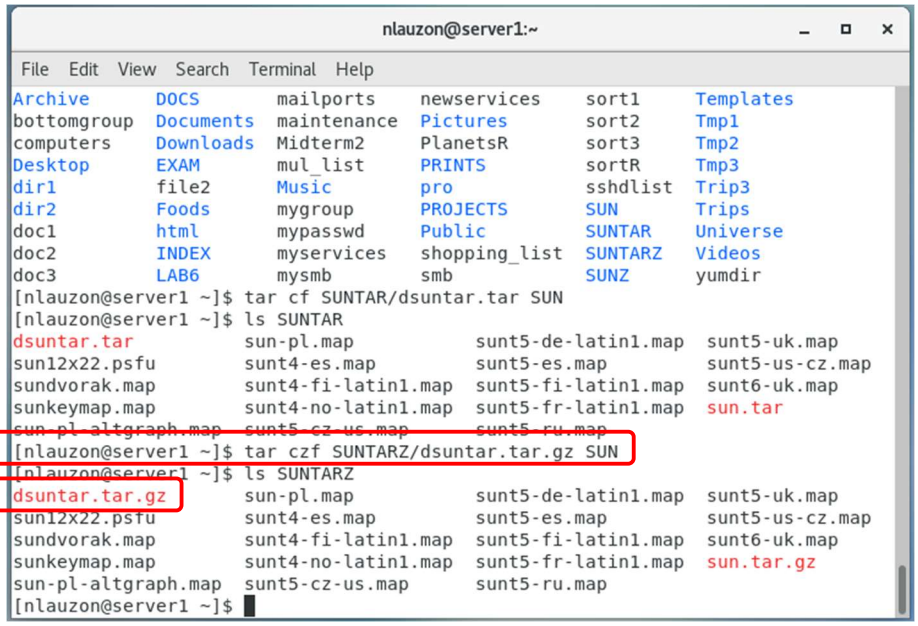
Then let's extract the files in the compressed archive file:



8. Archive the directory SUN to a file named dsuntar.tar located under SUNTAR (SUNTAR/dsuntar.tar)

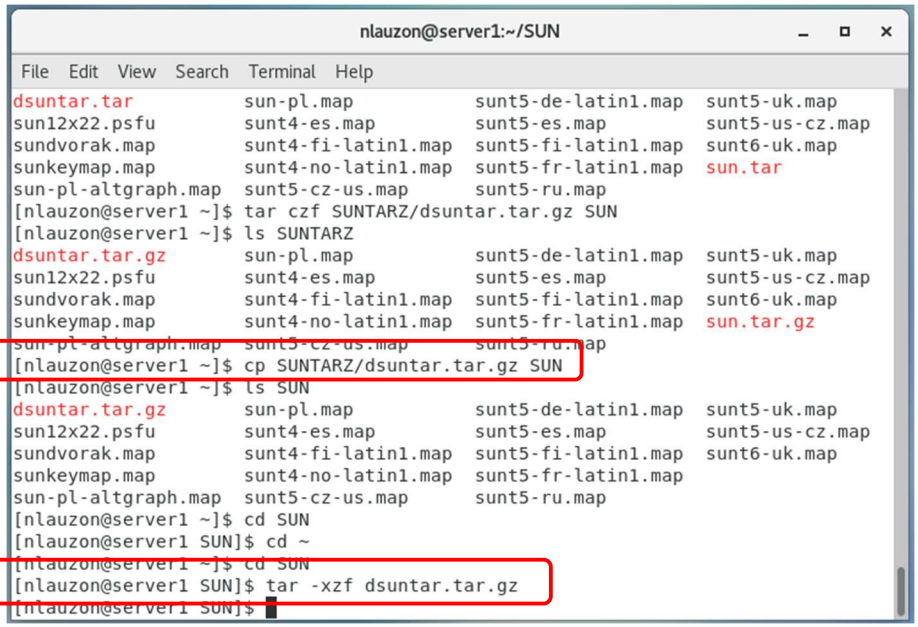


9. **Archive and compress the directory SUN to a file named dsuntar.tar.gz located under SUNTARZ (SUNTARZ/dsuntar.tar.gz)**

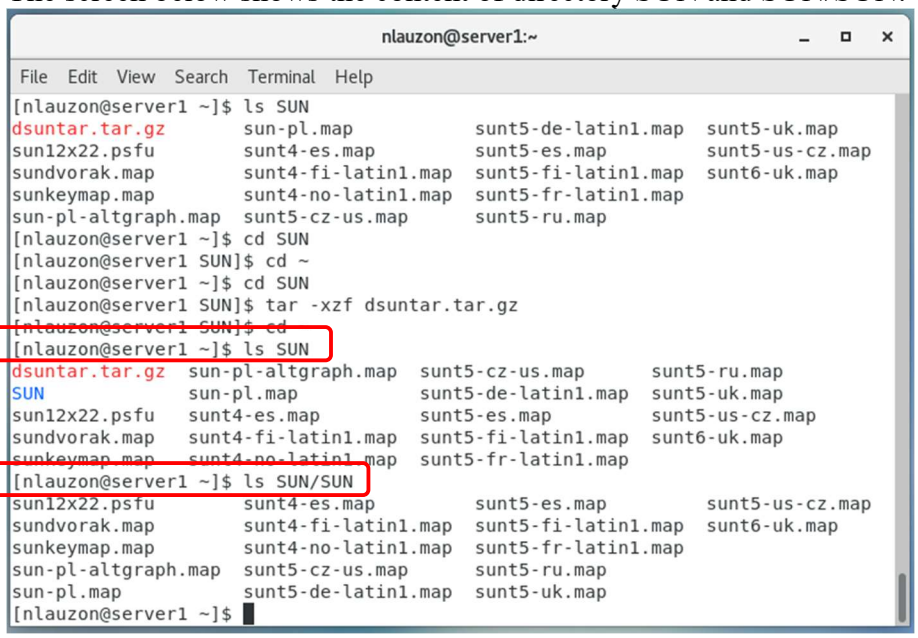


10. **Copy the new file SUNTARZ/dsuntar.tar.gz to the directory SUN then extract it.**

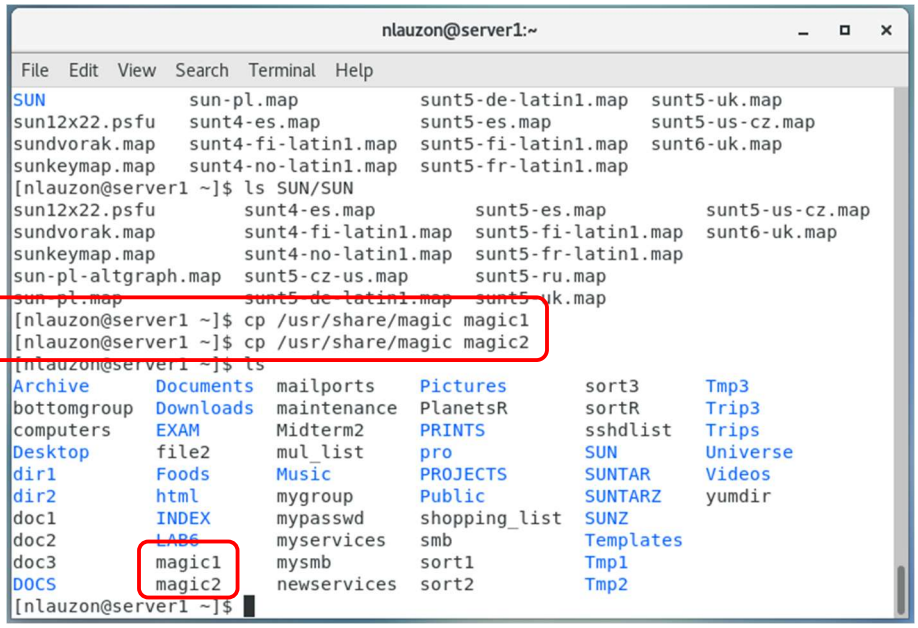
By doing that a directory SUN and its files within will be added into the SUN directory. The command to achieve the results are below:



The screen below shows the content of directory SUN and SUN/SUN:

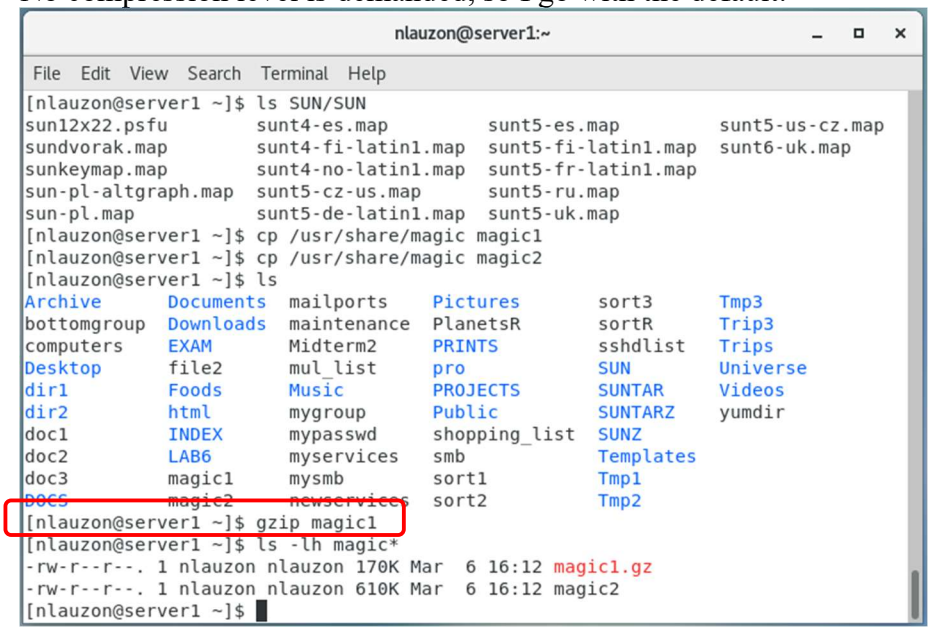


11. Make two copies of the file /usr/share/magic to your home directory. Name the first copy magic1 and the second one magic2



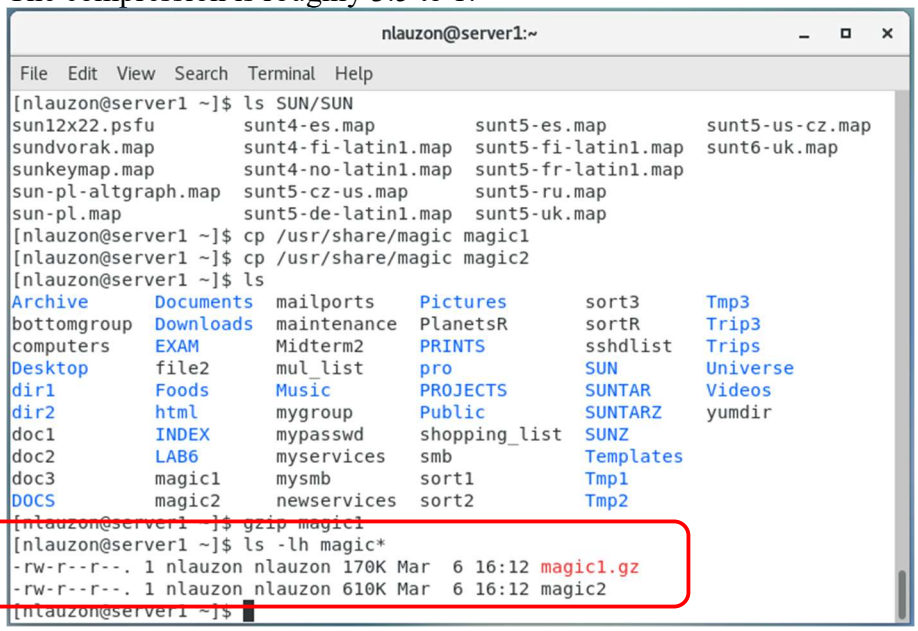
12. Compress the file magic1

No compression level is demanded, so I go with the default:

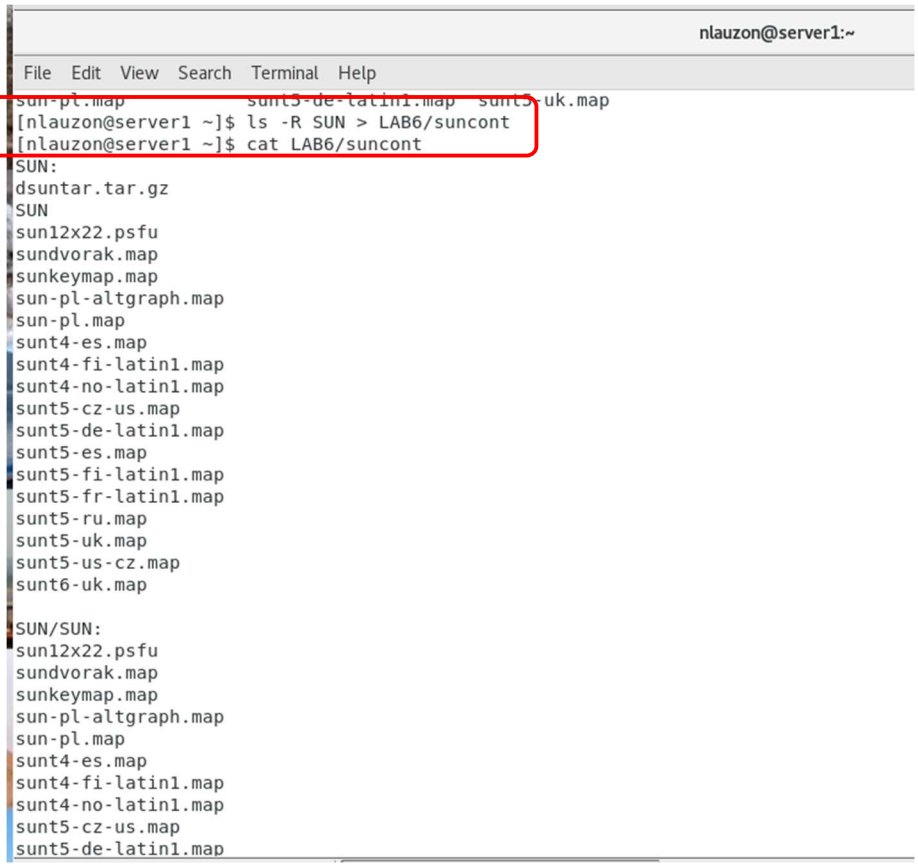


13. Compare the sizes of magic2 and the compressed file of magic1

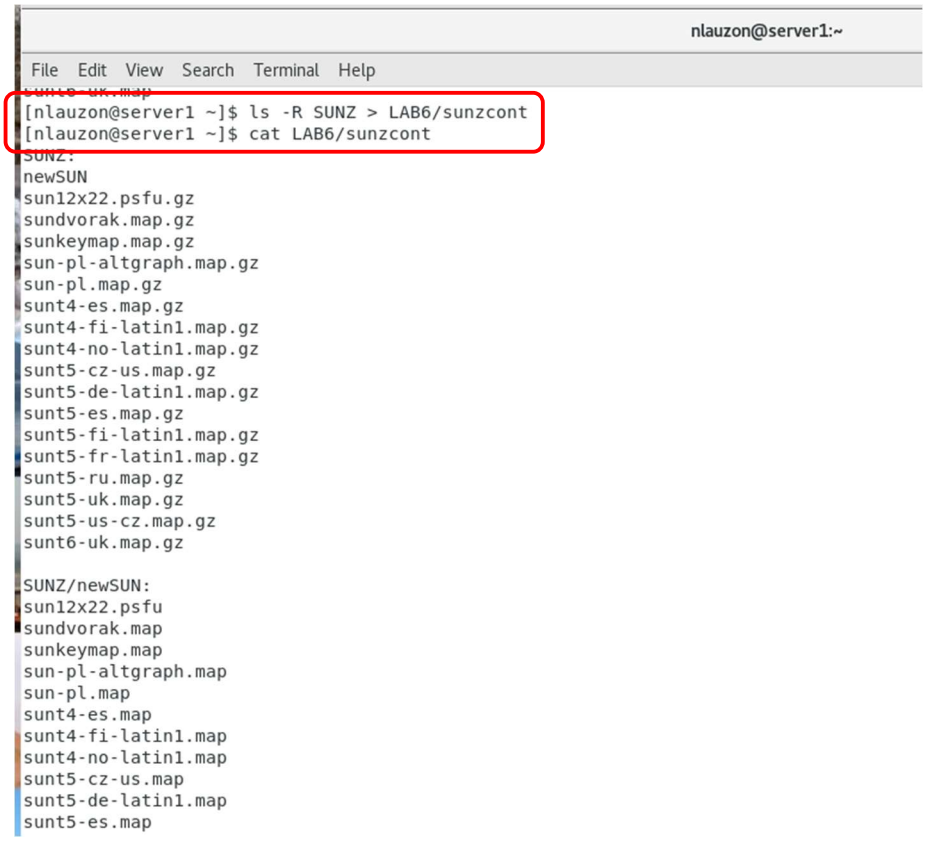
The compression is roughly 3.5 to 1:



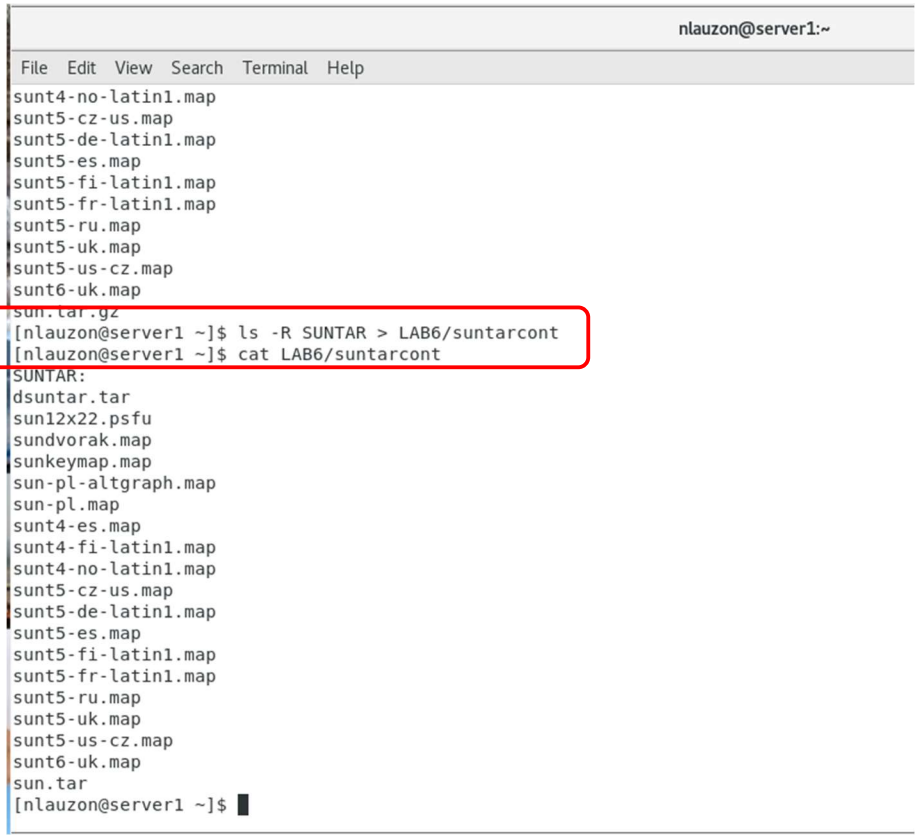
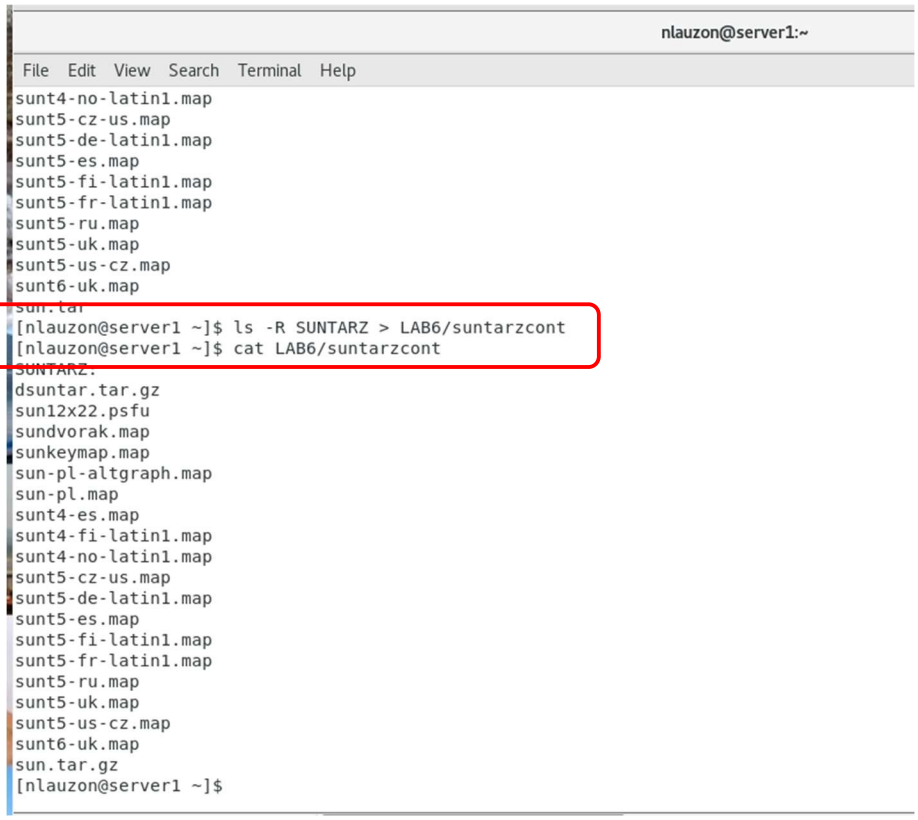
14. **List the contents of the directory SUN and redirect the output to a file named suncont under LAB6 directory (LAB6/suncont), then verify the file suncont.**



15. **List the contents of the directory SUNZ and redirect the output to a file named sunzcont under LAB6 directory (LAB6/sunzcont), then verify the file sunzcont.**



16. **List the contents of the directory SUNTAR and redirect the output to a file named suntarcont under LAB6 directory (LAB6/suntarcont), then verify the file suntarcont.**



17. **List the contents of the directory SUNTARZ and redirect the output to a file named suntarzcont under LAB6 directory (LAB6/suntarzcont), then verify the file suntarzcont.**