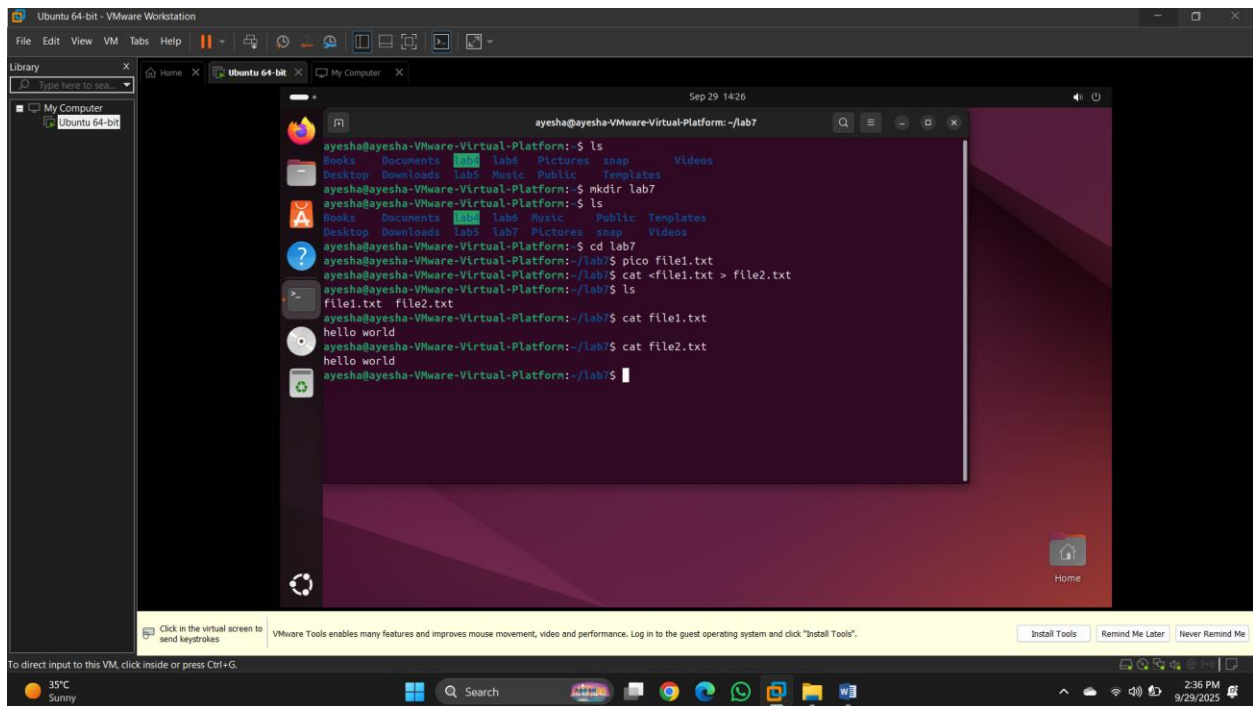


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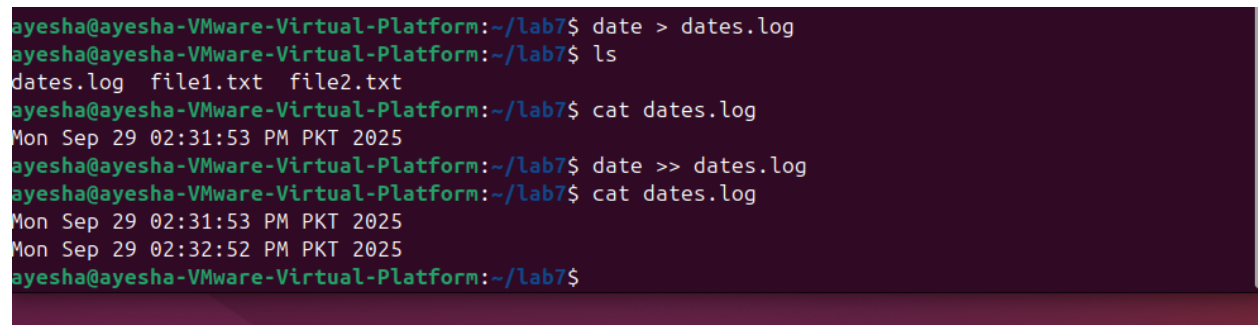
OS Lab 7

Task 1: Read the contents of file1.txt and create file2.txt with the same content using redirection only in a single command.



```
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7
ayesha@ayesha-VMware-Virtual-Platform: $ ls
Books  Documents  lab6  Pictures  snap  Videos
Desktop Downloads lab5  Music  Public  Templates
ayesha@ayesha-VMware-Virtual-Platform: $ mkdir lab7
ayesha@ayesha-VMware-Virtual-Platform: $ ls
Books  Documents  lab6  lab7  Music  Public  Templates
Desktop Downloads lab5  lab7  Pictures snap  Videos
ayesha@ayesha-VMware-Virtual-Platform: $ cd lab7
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ pico file1.txt
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ cat <file1.txt > file2.txt
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ ls
file1.txt  file2.txt
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ cat file1.txt
hello world
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ cat file2.txt
hello world
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$
```

Task 2: Run date and append the result to a file named dates.log every time you execute the command.



```
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ date > dates.log
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ ls
dates.log  file1.txt  file2.txt
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ cat dates.log
Mon Sep 29 02:31:53 PM PKT 2025
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ date >> dates.log
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$ cat dates.log
Mon Sep 29 02:31:53 PM PKT 2025
Mon Sep 29 02:32:52 PM PKT 2025
ayesha@ayesha-VMware-Virtual-Platform: ~/lab7$
```

Task 3: Run a command that will produce both valid output and an error. Redirect standard output to ok.txt and errors to err.txt.

```
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ ls /home/ayesha/lab7 /directory_doesnot_exist > ok.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ cat ok.txt
/home/ayesha/lab7:
dates.log
err.txt
file1.txt
file2.txt
ok.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ cat err.txt
ls: cannot access '/directory_doesnot_exist': No such file or directory
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$
```

Task 4: List the contents of the /bin directory and also try to list a non-existent directory /no_such_dir and redirect both the normal output and the error messages to be saved together in a single file called all.log in one line.

```
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ ls /bin /no_such_directory > all.log 2>&1
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ ls
all.log dates.log err.txt file1.txt file2.txt ok.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ cat all.log
ls: cannot access '/no_such_directory': No such file or directory
/bin:
[
aa-enabled
aa-exec
aa-features-abi
aconnect
acpidbg
add-apt-repository
addpart
addr2line
airscan-discover
alsabat
alsaloop
alsamixer
alsatplg
```

Task 5: Run a command that reads from input.txt and writes sorted, unique lines into unique.txt using pipe operator.

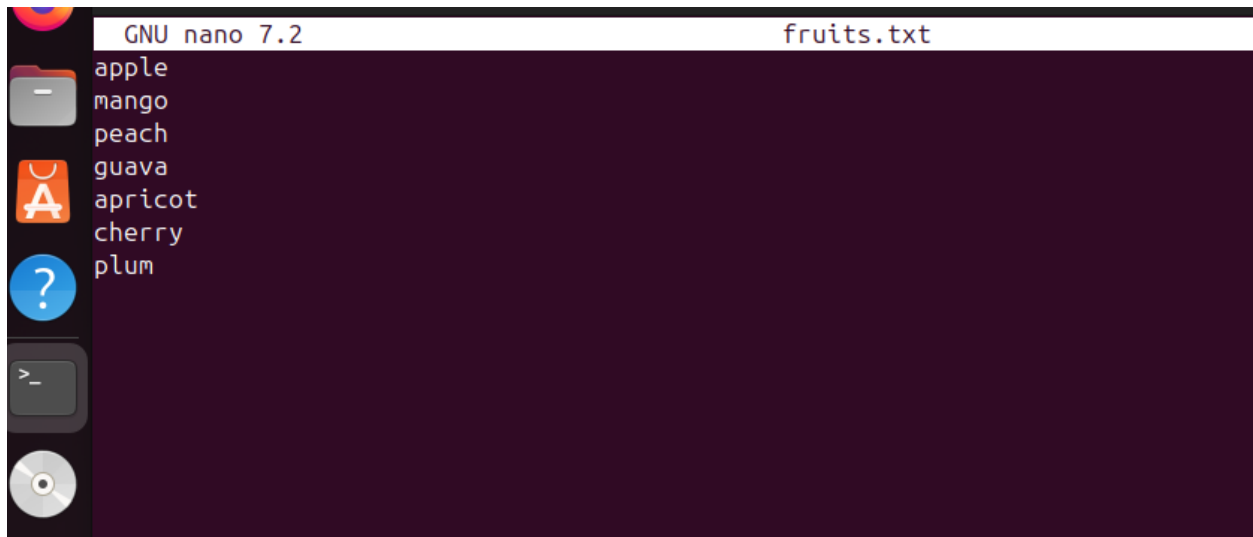
```
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ pico input.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ pico unique.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ cat input.txt
ayesha
john
sam
harry
henry
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ cat input.txt | sort | uniq > unique.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ cat unique.txt
ayesha
harry
henry
john
sam
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$
```

Task 6:

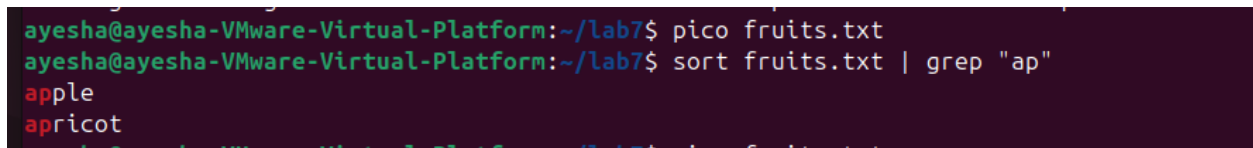
What would be the result of the following commands.

- **cat filename > new** // filename is name of file that exist at current path
Copies the contents of filename to new. If new doesn't exist, it creates new and then copies its data.
content
- **who > new**
This commands writes the users to new. If new doesn't exist, it creates the file.
If new has some content, it overwrites.
- **ls | sort -r**
Sorts the files in reverse order.
- **ls | sort -r >> new**
Sorts all the files in reverse order and sends data to new, if new doesn't exist, it creates the file.
If new has some content, it overwrites.

Task 7: Sorts the contents of **fruits.txt** in alphabetical order. Filters the sorted output to only display fruits that contain the substring "ap".

A screenshot of a terminal window with a dark purple background. The title bar at the top shows "GNU nano 7.2" on the left and "fruits.txt" on the right. The main area of the terminal displays the contents of the file "fruits.txt" in a light blue monospace font. The text is as follows:

```
apple
mango
peach
guava
apricot
cherry
plum
```

On the left side of the terminal, there is a vertical sidebar with several icons: a folder icon, a terminal icon, a question mark icon, a terminal icon with a prompt character, and a CD icon.A screenshot of a terminal window with a dark purple background. The prompt is "ayesha@ayesha-VMware-Virtual-Platform:~/lab7\$". The user has entered two commands:

```
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ pico fruits.txt
ayesha@ayesha-VMware-Virtual-Platform:~/lab7$ sort fruits.txt | grep "ap"
```

The output of the second command is displayed in red text:

```
apple
apricot
```