# Ex 1. Advanced Linux Commands

**Aim:**

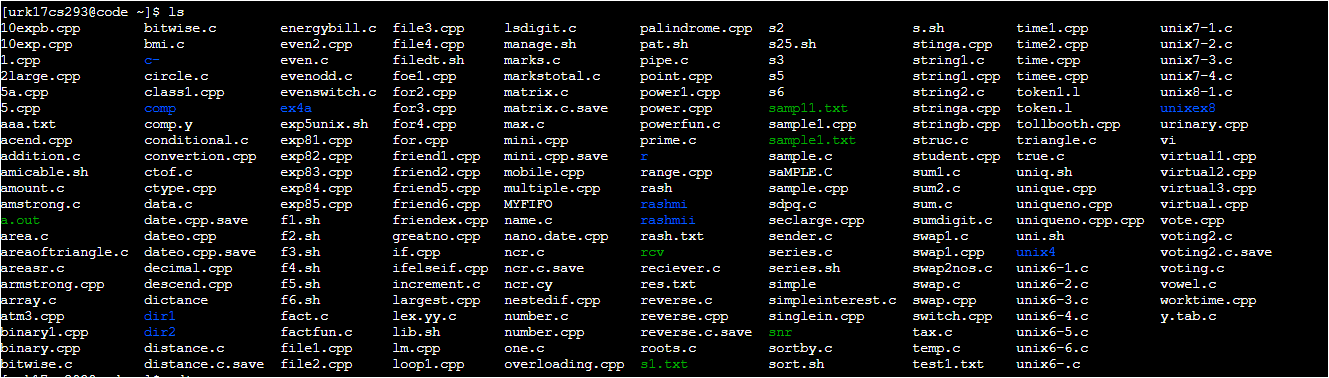
To study and implement Linux commands.

**Description:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **COMMAND** | **DESCRIPTION** | **ATTRIBUTES/OPTIONS** |
| 1. | ls | List all the contents in the directory | Filesystem |
| 2. | ls –a | List all the hidden files in the directory | Filesystem |
| 3. | vdir | List the contents in the directory | Filesystem |
| 4. | cd | Changes directory | Filesystem |
| 5. | mkdir | Makes/creates directory | Filesystem |
| 6. | rmdir | Removes directory | Filesystem |
| 7. | cat | Concatenate and print files | Filesystem |
| 8. | cat -T | Prints file contents without space | Filesystem |
| 9. | vim | View content | Filesystem |
| 10. | cut | Cuts out selected fields of each line of s file | Text processing |
| 11. | grep | Search text for a pattern | Misc |
| 12. | wc | Line , word and byte or character count | Text processing |
| 13. | cp | Copy content | File system |
| 14. | mv | Move content | Filesystem |
| 15. | cal | Extract current calendar | Misc |
| 16. | cal -j | Extract Julian calendar | Misc |
| 17. | netstat | Extract network statistics | Network troubleshoot |
| 18. | netstat –i | Obtain interface configurations | Network troubleshoot |
| 19. | netstat –s | Obtain port configurations | Network troubleshoot |
| 20. | netstat –listen | Obtain listening ports | Network troubleshoot |
| 21. | netstst –a | Obtain all the IP information | Network troubleshoot |
| 22. | netstat –all | Obtail all the IP information | Network troubleshoot |
| 23. | head | Copy the first part of files | Test processing |
| 24. | tail | Copy the last part of file | Test processing |
| 25. | sort | Sort in an order | Text processing |
| 26. | w | Obtain user information | System administration |
| 27. | who | Obtain current user information | System administration |
| 28. | chmod | Change mode | System administration |
| 29. | cmp | Compare file contents | Filesystem |
| 30. | diff | Differentiate file contents | Filesystem |
| 31. | comm | Extract common/unique features of files | Filesystem |
| 32. | id | Obtain user id | System administration |
|  |  |  |  |

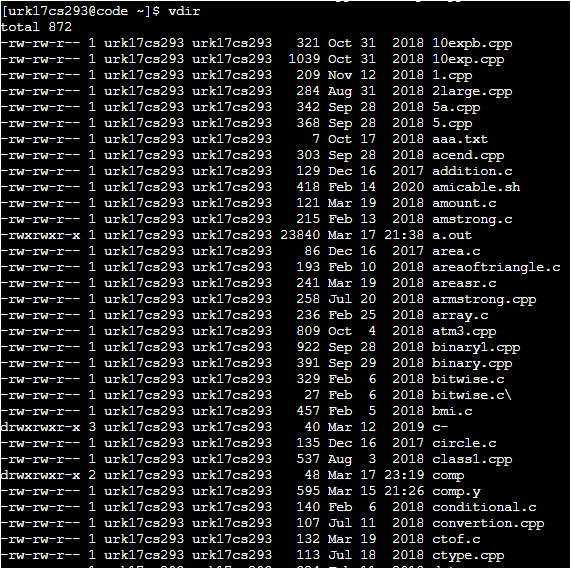
1.List the contents of user's home directory including the hidden files

OUTPUT:



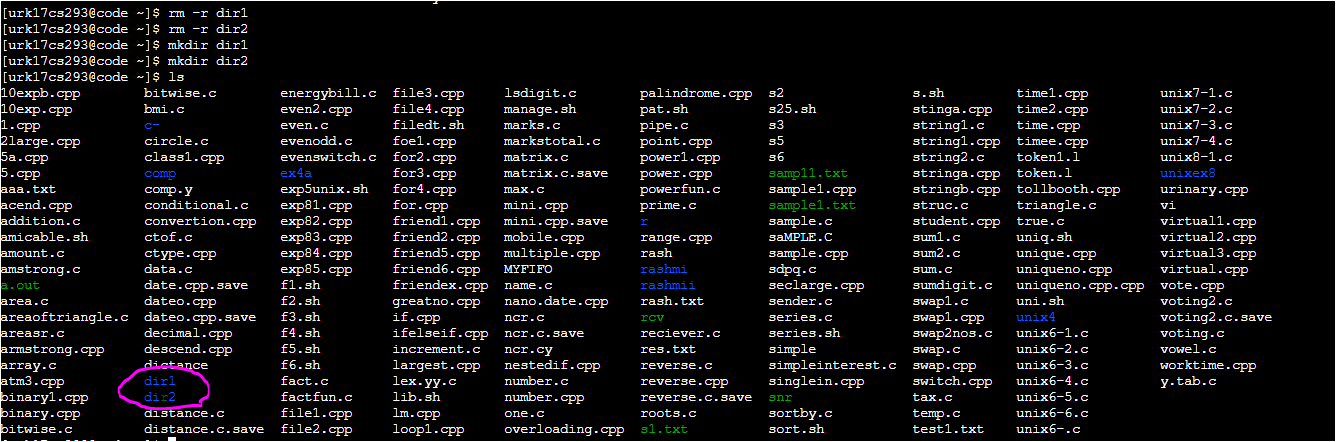
2. List the content of /var directory?

OUTPUT:



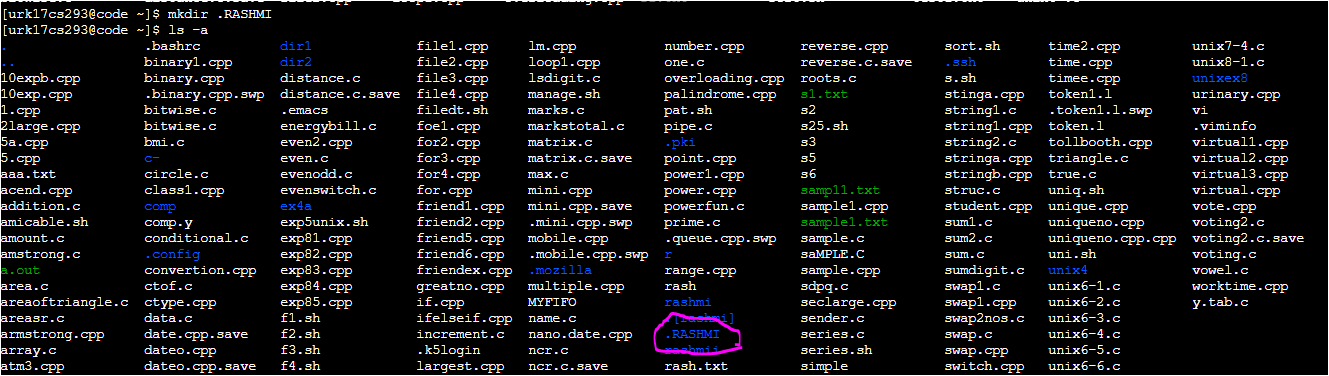
3. Create two directories named dir1 & dir2

OUTPUT:

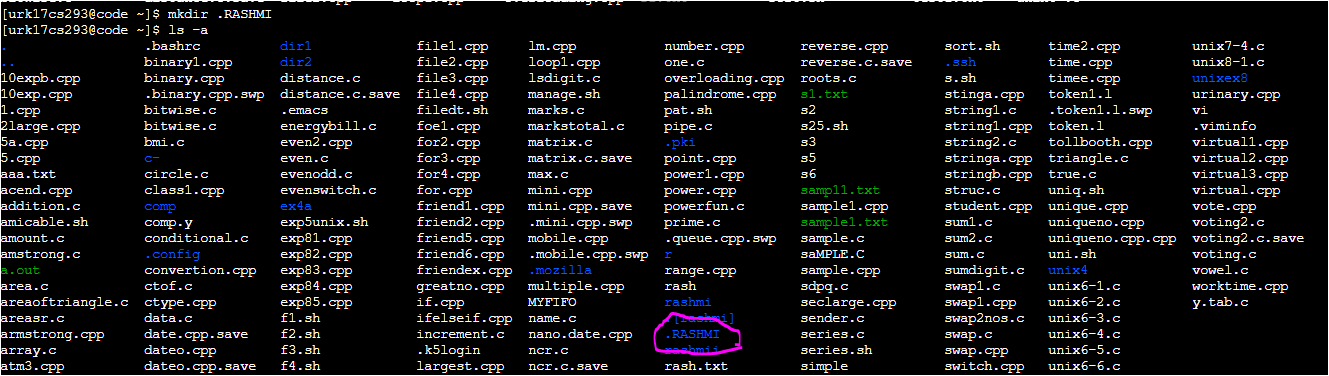


4. Create a hidden directory with your name?

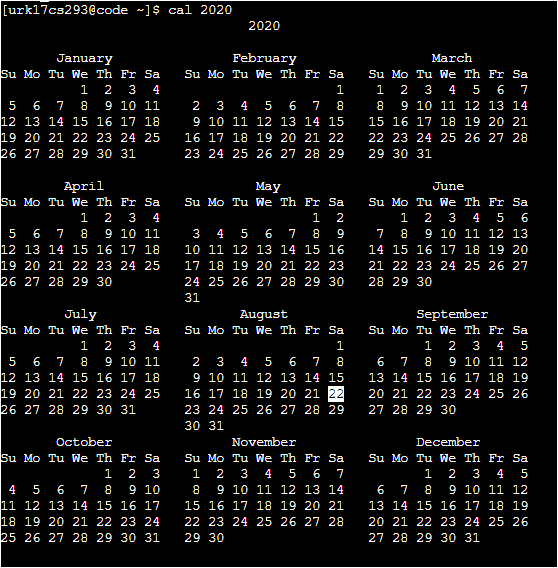
OUTPUT:



5. Display the content of a hidden directory.

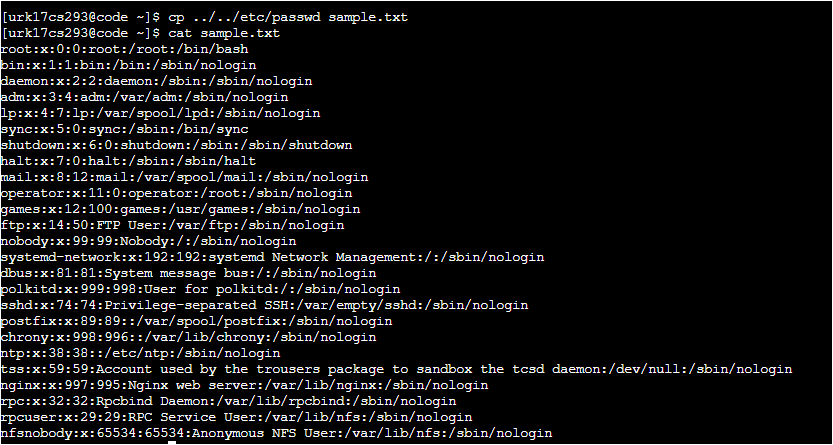


6. Display the calendar of 2020.



7. Copy the file /etc/passwd file to current directory with sample.txt as the filename

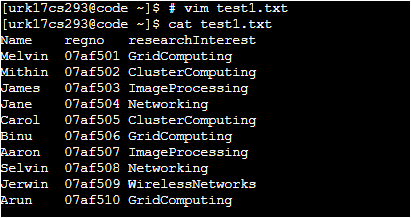
OUTPUT:



8. Create a file test1.txt using Vim editor with the following contents to it

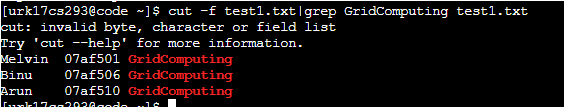
Name Register Number Research Interest

OUTPUT:



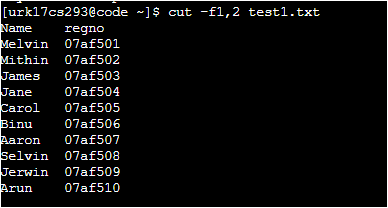
a. Display the student names who are having Research Interest as Grid Computing

OUTPUT:



b. List all the student names & RegNo in the class

OUTPUT:



c. List the count of students who have interest as Image Processing and store the

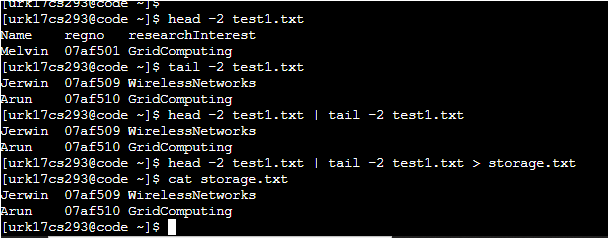
result in another file.

OUTPUT:



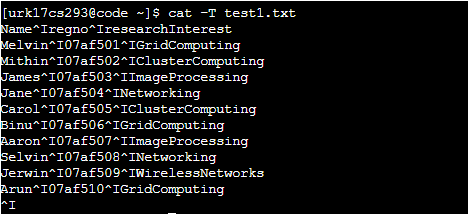
d. Display the first two rows and last two and store into another file

OUTPUT:



9. Display the contents of the file test1.txt without any blank lines

OUTPUT:



10. Move the file sample.txt from dir1 directory to dir2 directory

OUTPUT:



11. Change directory into dir2 directory

OUTPUT:



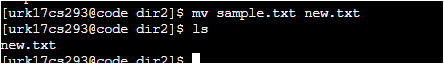
12. Check whether the file sample.txt is present their

OUTPUT

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13. Rename the file sample.txt to new.txt and check whether sample.txt is there or not?

OUTPUT:



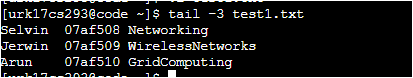
14. Remove the directory dir1

OUTPUT:



15. Display last 3 lines of the file test1.txt

OUTPUT:



16. Display all the commands you have executed so far and save the list into a file named

todayshistory.txt

OUTPUT:



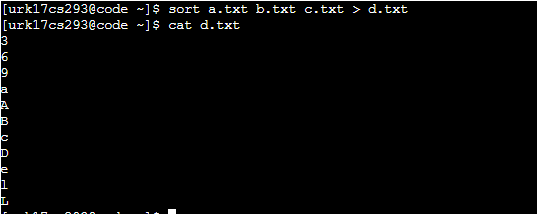
17. How many files are present under your home directory?

OUTPUT:



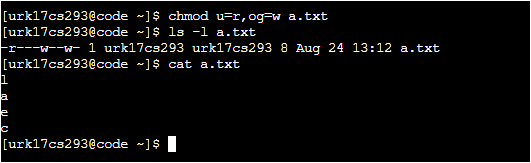
18. Perform sorting of three files and store the sorted file in the fourth file

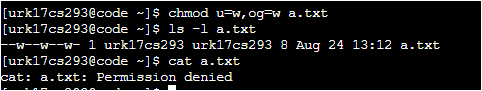
OUTPUT:



19. Change the permission of your newly created file such that the group users and others don’t access any type of access.

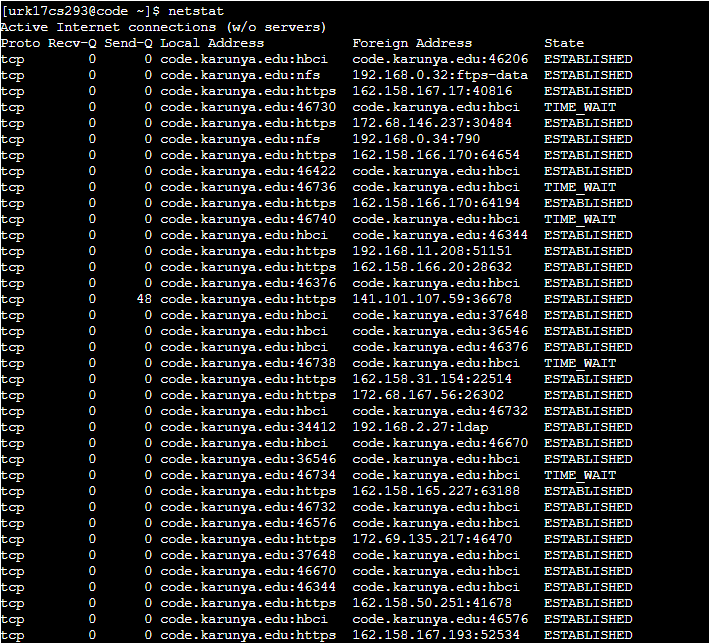
OUTPUT:

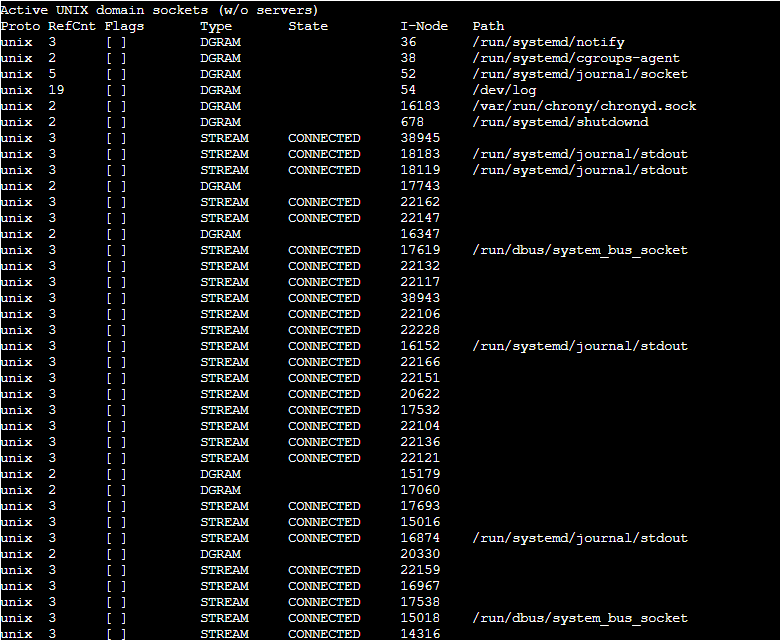




20. Display the network status on the shell.

OUTPUT:

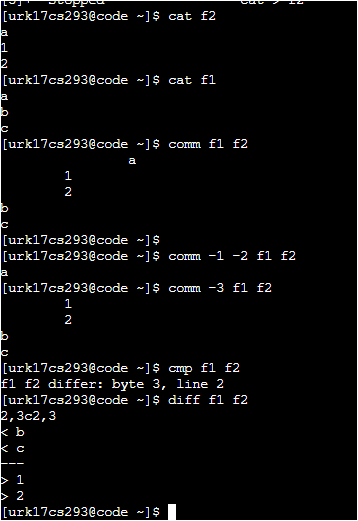




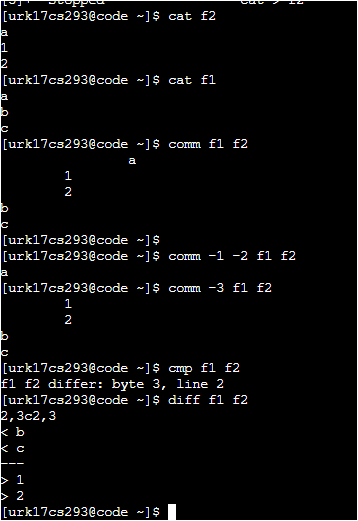
21. Compare any two files and search for both common and exclusive features

OUTPUT:

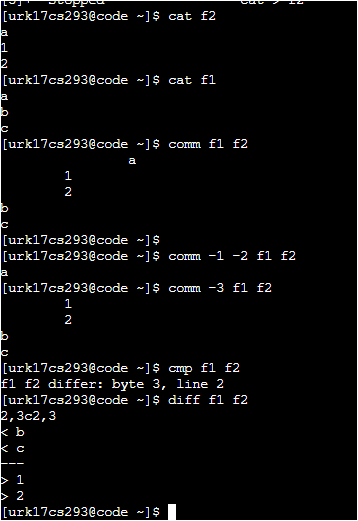
(creating file first)



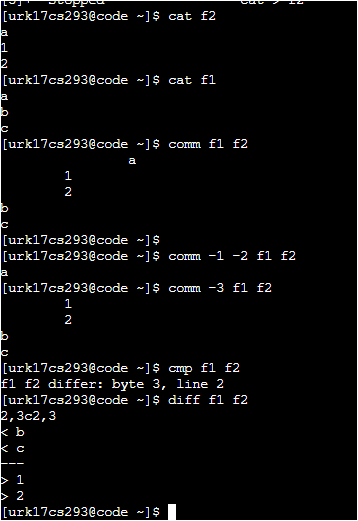
(using **comm**)



**Extracting common features**

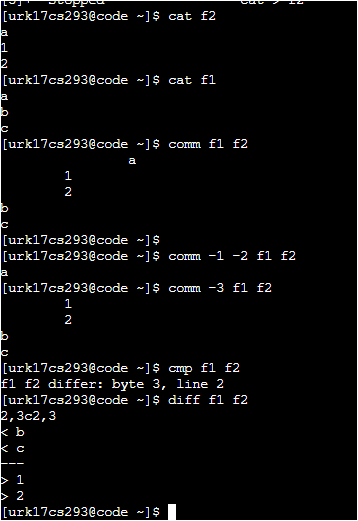


**Extracting unique features**

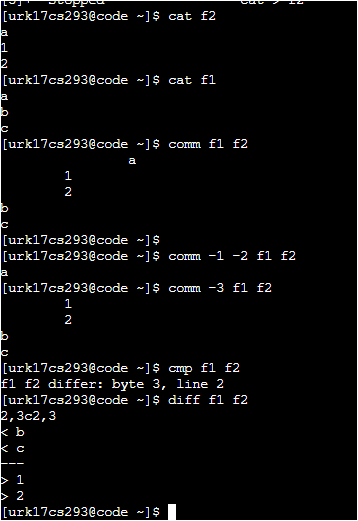


*OTHER WAYS TO COMPARE:*

(using **cmp**)

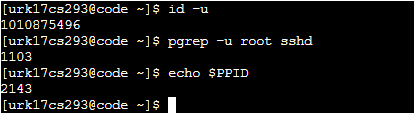


(using **diff**)



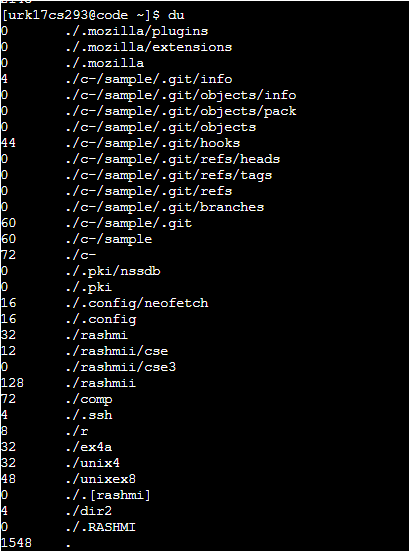
22. Display the user ID, process ID and parent process ID.

OUTPUT:

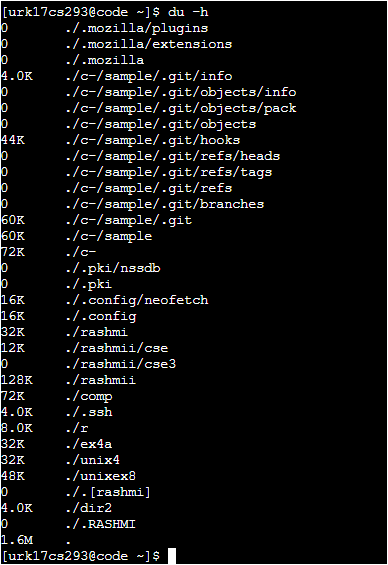


23. Report disk usages of file system.

OUTPUT:

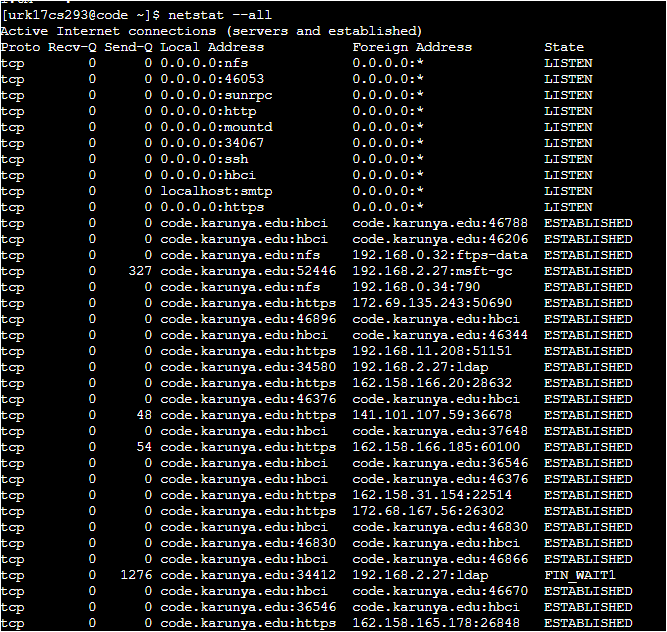


(using **du –h** to read the disk usage in **bytes**)

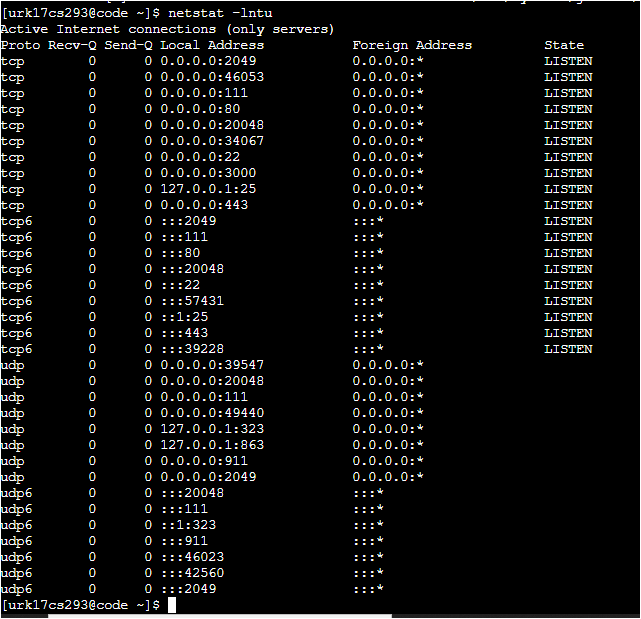


24. Display the statistics of all ports connected to a network.

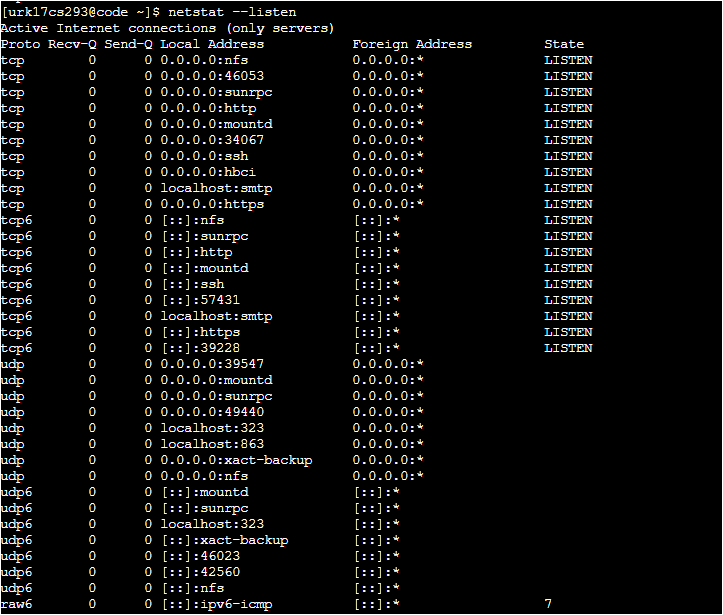
OUTPUT:



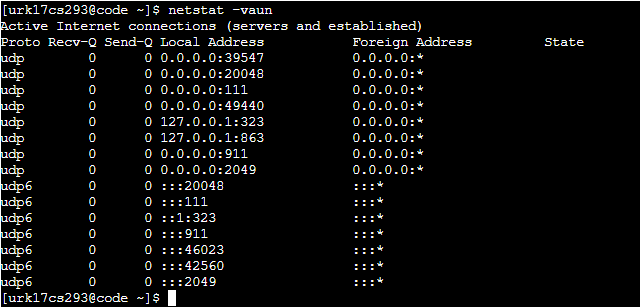
(using **netstat –lntu**)



(using **netstat –-listen**)



(using **netstat –vaun**)

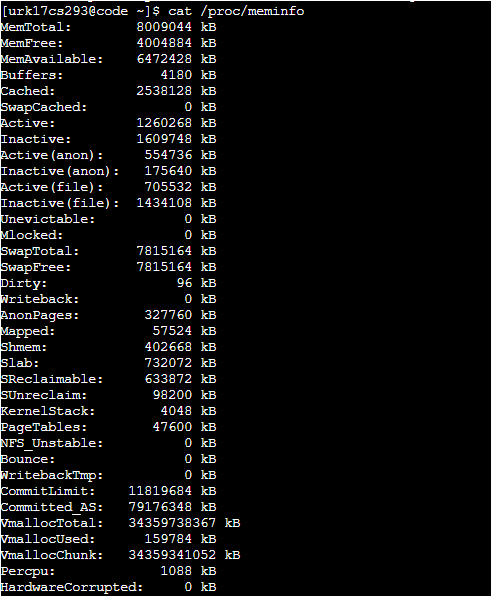


25. Display the uptime of the system and show the statistics of memory usage. Check if

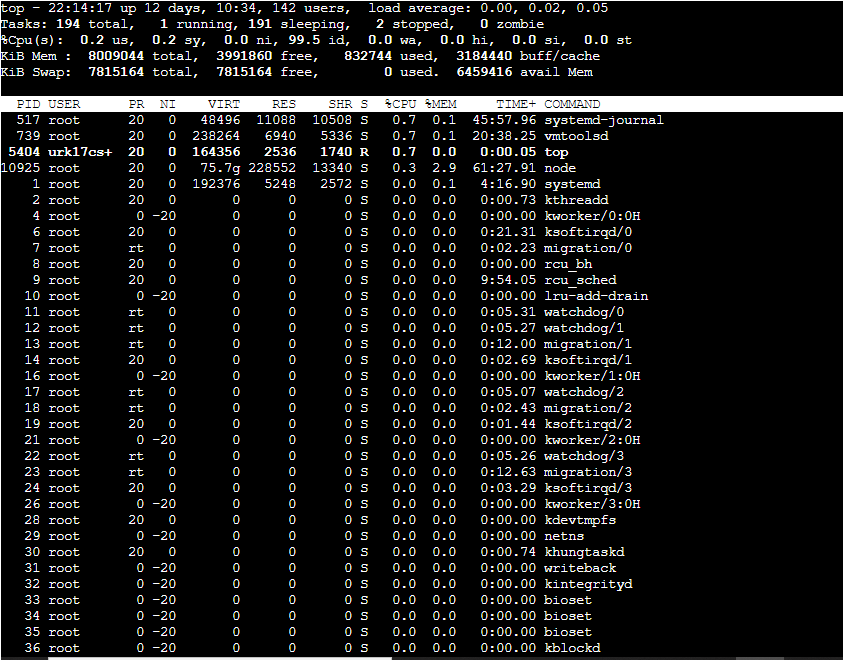
there is any malicious packets intrude the network.

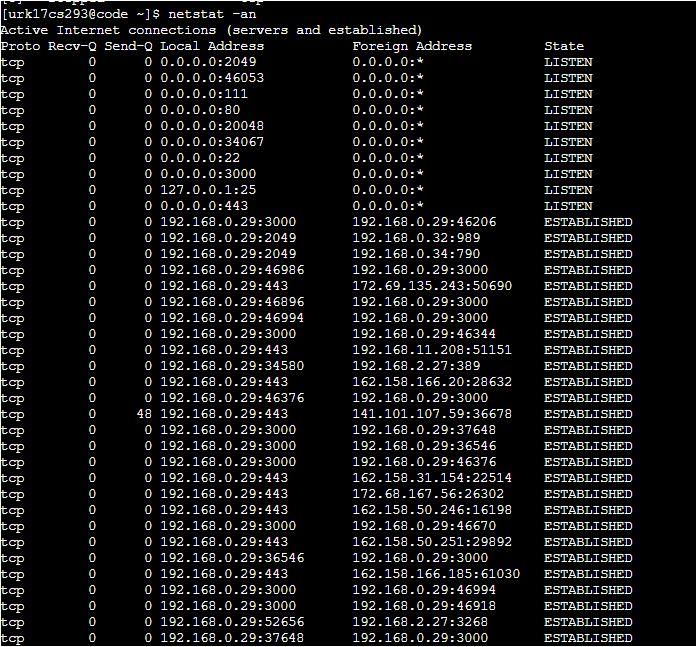
OUTPUT:





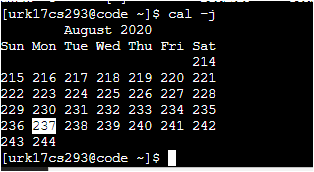
(using **top** command)





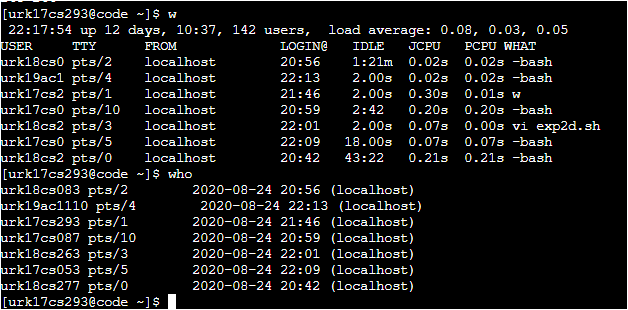
26.Display the date in Julian format

OUTPUT:

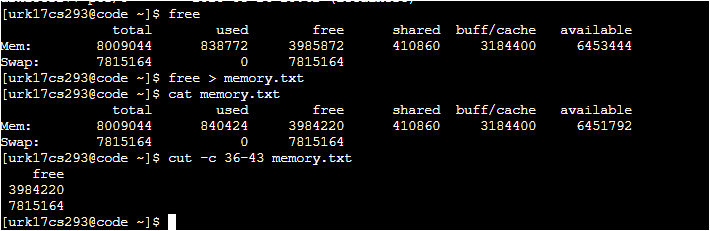


27.Find out if the Linux platform is infected or not.

OUTPUT:

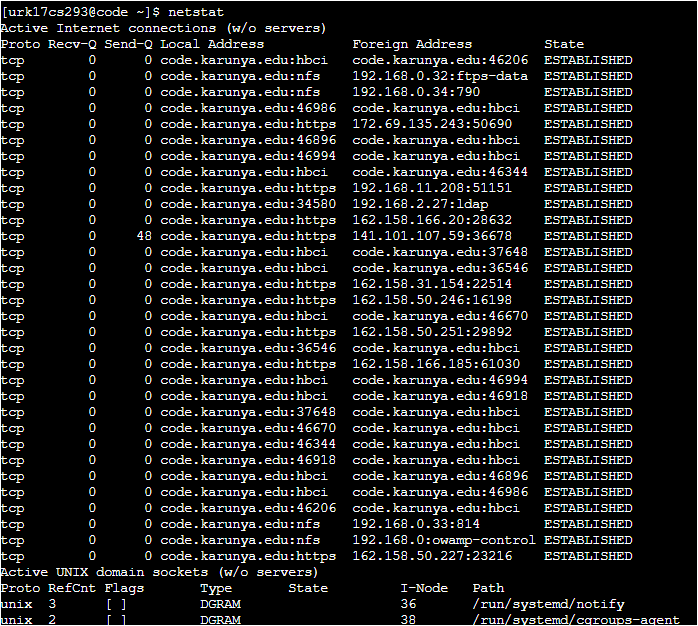


28.Display only the free space available in the memory.

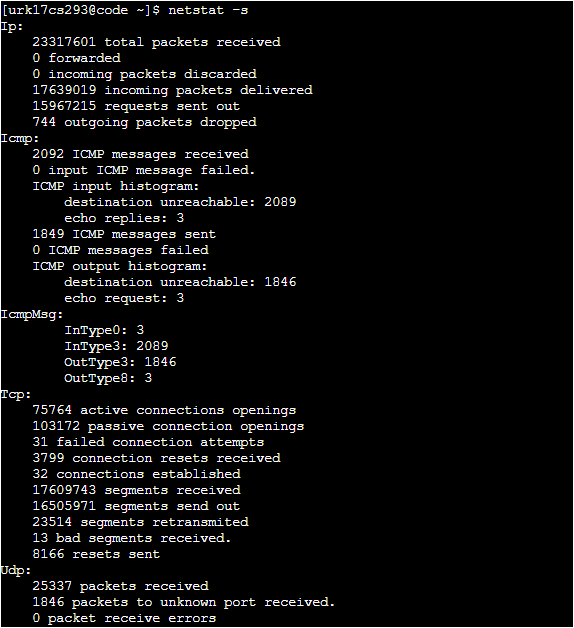
OUTPUT:  


29.Display the configuration information of your network

OUTPUT:



30.Display the IP information under the command netstat

OUTPUT:  


**Result:**

The Linux commands to the given tasks were run successfully.