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Lab 1 - Study of Basic Commands of Linux Operating System

Objectives:

1. Studying various Linux commands.

2. Describe the operation of basic Linux commands.

Theory:

Linux is a Unix-Like operating system. All the Linux/Unix commands are run in the terminal provided by the Linux system. This terminal is just like command prompt of Windows OS. Linux/Unix commands are case-sensitive.

Linux Commands:

1. **hostname** command: The hostname commands show the system host name.

2. **pwd** command: It shows the directory you're currently in.

3. **whoami** command: This shows the currently logged-in user.

4. **cal** command: It displays a simple calendar in the terminal.

5. **date** command: It displays the system date and time.

6. **ls** command: It shows the contents of a particular directory – both files and directories.

7. **id** command: It is used to find out user and group names and numeric IDs (UID or group ID) of the current user or any other user in the server.

8. **time** command: It is used to execute a command and prints a summary of real-time, user CPU time and system CPU time spent by executing a command when it terminates.

9. **df** command: It displays the amount of disk space available on the file system containing each file name argument.

10. **df -h** command: Display sizes in Gigabyte, Megabyte, or Kilobyte as appropriate, akin to the way a human would describe sizes. Actually, the h stands for "human-readable".

11. **echo** command: It allows users to display lines of text or strings that are passed as arguments.

12. **mkdir** command: It stands for "make directory," and it helps you organize your computer stuff by creating folders with just one command.

13. **du -s** command: It is used to obtain the disk usage summary for a directory.

14. **uname -s** command: It prints the kernel name.

15. **history** command: Used for reviewing and reusing previously executed commands.

16. **clear** command: It is used to clear the terminal screen.

17. **rmdir** command: rmdir command is used remove empty directories from the filesystem in Linux. The rmdir command removes each and every directory specified in the command line only if these directories are empty.

18. **touch** command: The touch command is used to create a file. It can be anything,from an empty txt file to an empty zip file. Here I create a new.text file using touch command.

19. **mv** command: the mv command is used to rename a file. Here I rename the new.text file into hello.text file.

20. **locate** command:The locate command is used to locate a file in a Linux system, just like the search command in Windows. We can use this command when we don't know where a file is saved or the actual name of the file.

21. **chmod** command: Used to change the permissions on a file using either a symbolic or numeric mode or a reference file.

22. **which bash** command: Tells the address of the directory.

23. **cd** command: It is a shell builtin command for changing the current working directory.

24. **cat** command: It displays the contents of a file in the terminal (standard output or stdout).

25. **cp** command: The main way to copy files and directories in Linux is through the cp command (copy).