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INSTITUTE OF SCIENCE AND TECHNOLOGY

HIMALAYA COLLEGE OF ENGINEERING

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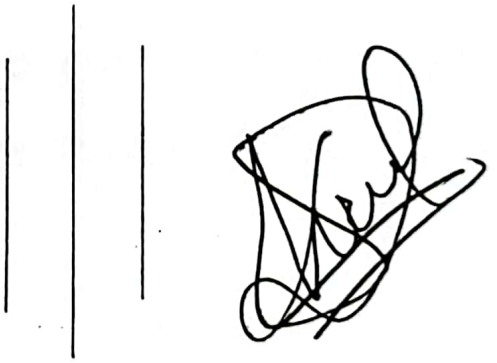

Lab Report No:- 1

Title:- Introduction to commands in UBUNTU

Submitted by:-

Name:- Sujan Shrestha

Roll No:- 38

Submitted To:-

Department Of CSIT

Checked by:-

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TITLE: Introduction to Commands in UBUNTU.

OBJECTIVE:

→ To understand and use basic Linux commands, including terminal navigation, file handling and the command usage. This lab introduces essential to commands and their practical applications in the ubuntu operating system.

THEORY:

→ Linux commands are instructions input into a terminal to perform specific tasks. The terminal allows users to interact directly with the OS. Commands in linux range from basic file handling to complex system administration tasks.

• Terminal Shortcut:

→ Ctrl + Alt + T: opens the terminal in ubuntu.

• Basic commands:

1. echo "helloworld": prints "helloworld" to terminal.
2. cal: Displays the current months calander.
3. clear: clears the terminal screen.

file system & commands:

→ In linux, everything is considered a file, including directories, hardware devices and even network sockets. This unified file system approach the simplifies interaction with the system.

a, User Commands : Commands that can be executed by the user from the shell. These are the most common commands and include utilities like 'ls', 'echo', and 'man'.

b, System calls : functions provided by the kernal that can be called by user programs to perform lower-level operations. Examples include 'open', 'read', and 'write'.

c, C Library functions : standard functions provided by the C library, such as 'printf', 'malloc', and exit.

d, Devices and special files : Documentation on the special files found in '/dev', such as device drivers for hardware.

e, file formats : Descriptions of various file formats, including configuration files & data formats.

f, Games : Documentation for games and screen savers available on the system.

g, Miscellaneous : various topic that don't fit into the other sections, such as macro packages and conventions.

h, system Administration : Commands and information used by system administrators for the system maintenance and configuration, such as 'iptables', 'mount', and 'cron'.

→ The linux manual pages or man pages, are a set of online documentation that provide information about commands, system calls, the library functions and more. The man pages are divided into sections, each covering a specific category of commands or functions. Thus, this were some manual structures.

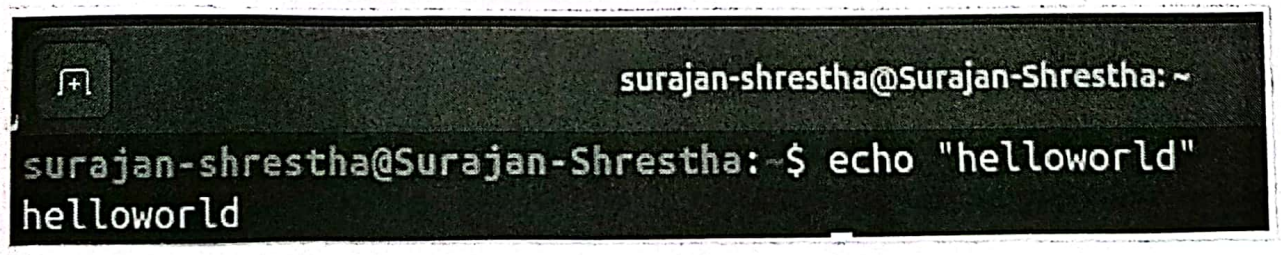
Common Commands & Their manual sections:

- man 1 which: Displays the manual for the 'which' command, which locates a command.
- man 1 ls: Displays the manual for the 'ls' command, which lists directory contents.

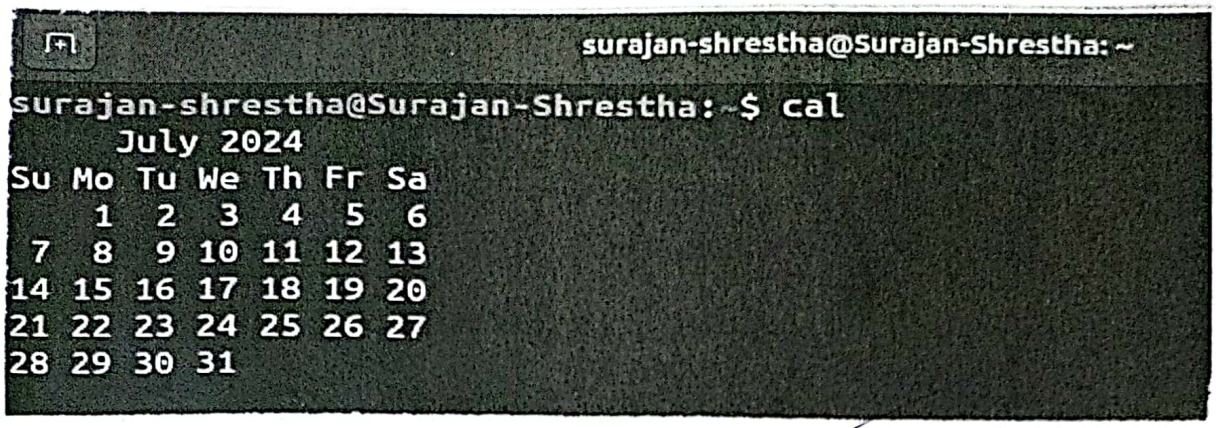
Commands & Output's:

a) Basic commands:

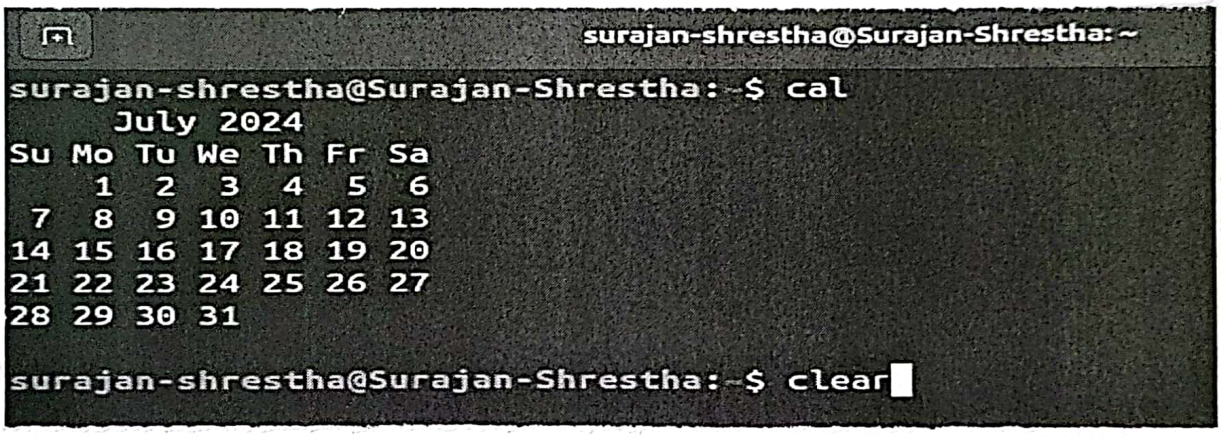
1, echo "helloworld":



2> cal :

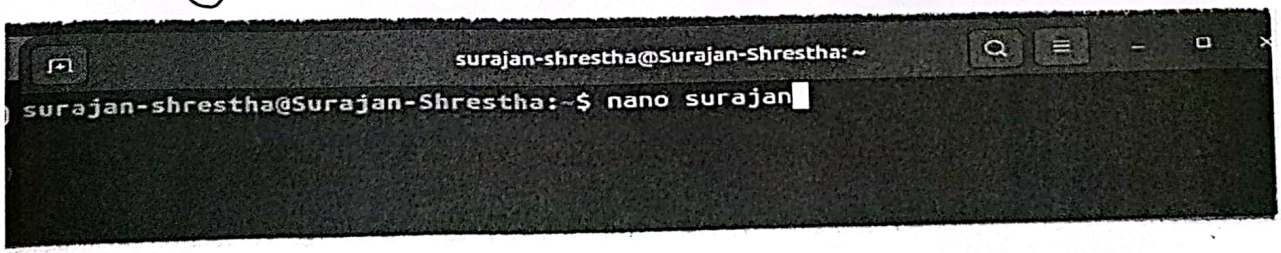


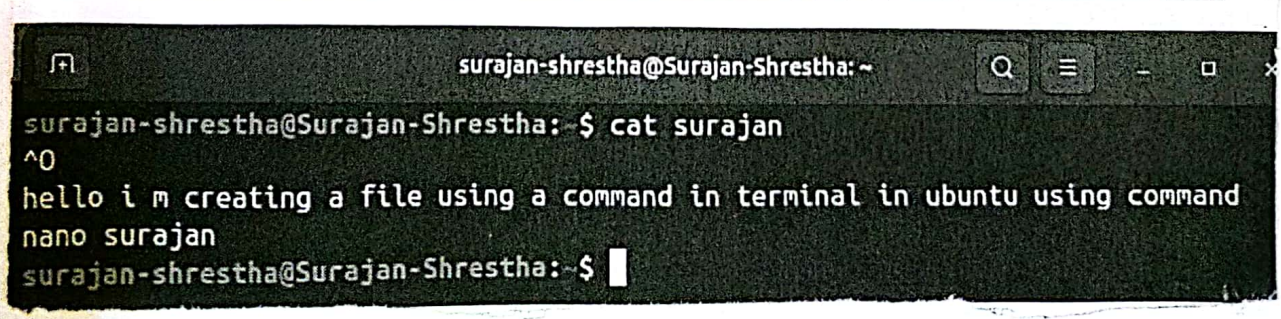
3> Clear :

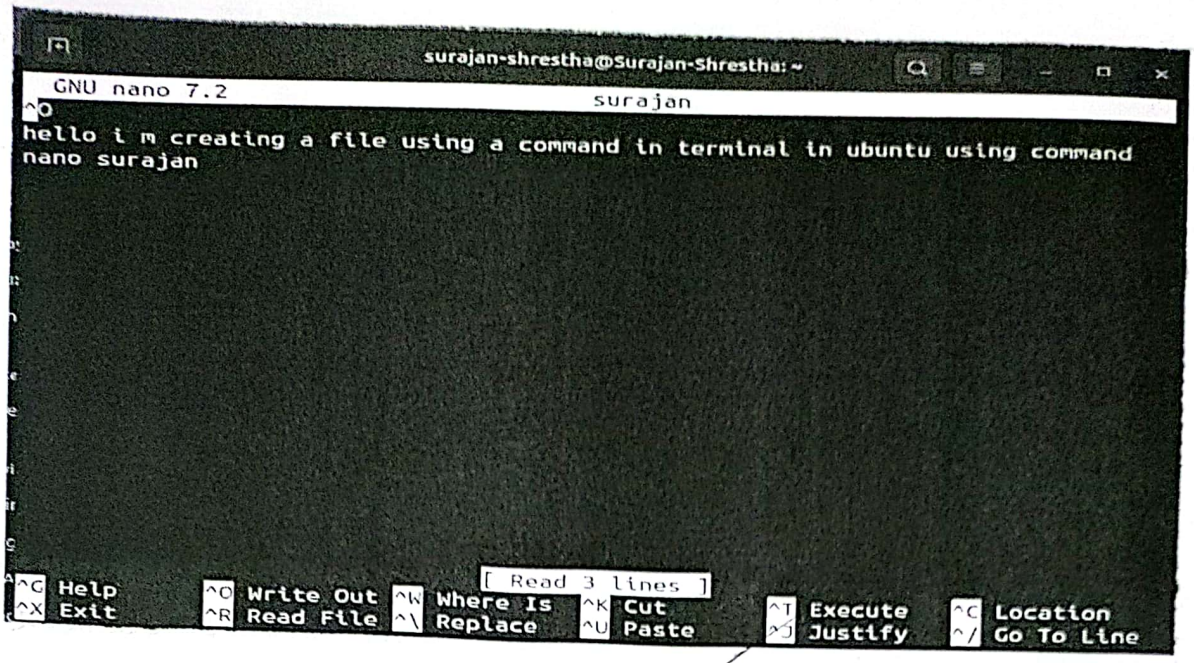


b> file Handeling Commands :

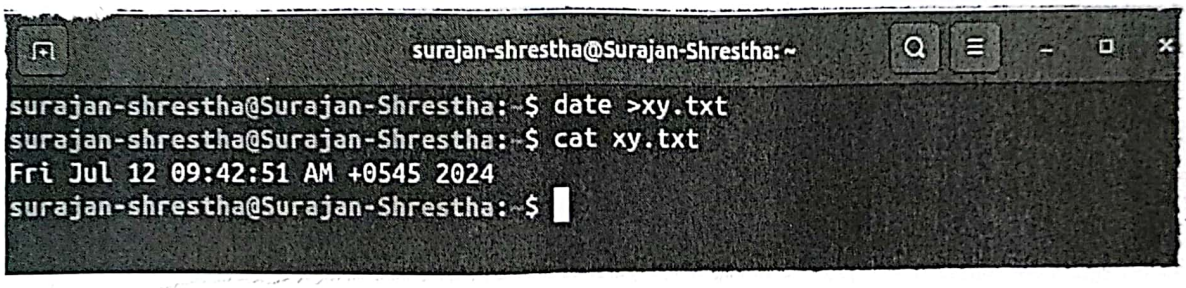
1> creating and viewing files :





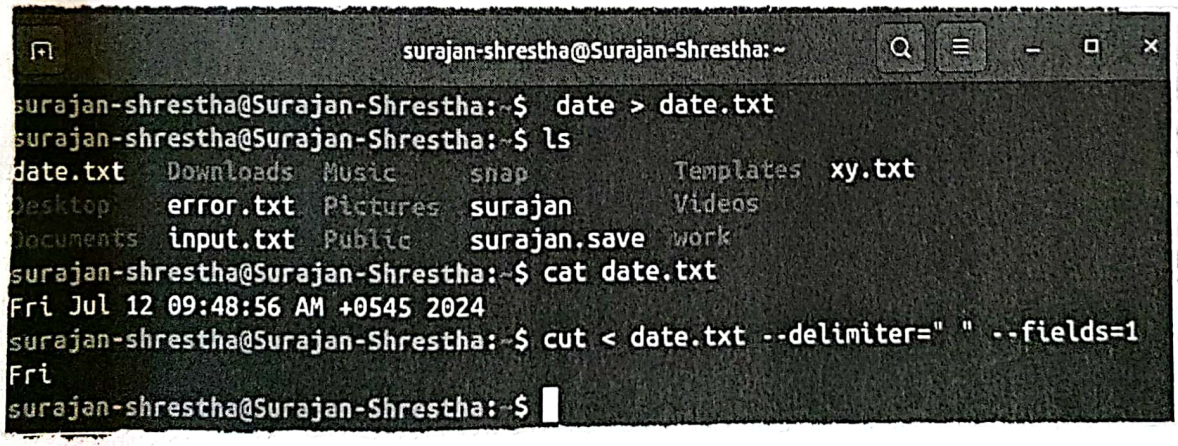


2> Redirecting output :



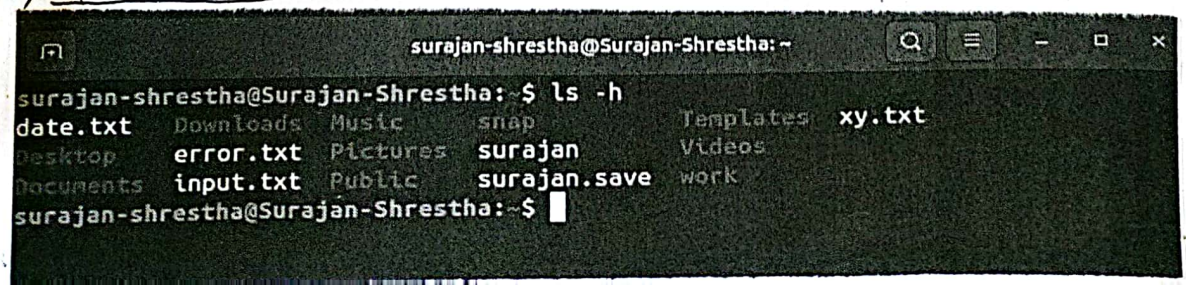
3> cut command :

↳ $cut < date.txt -- delimiter " " --fields 1

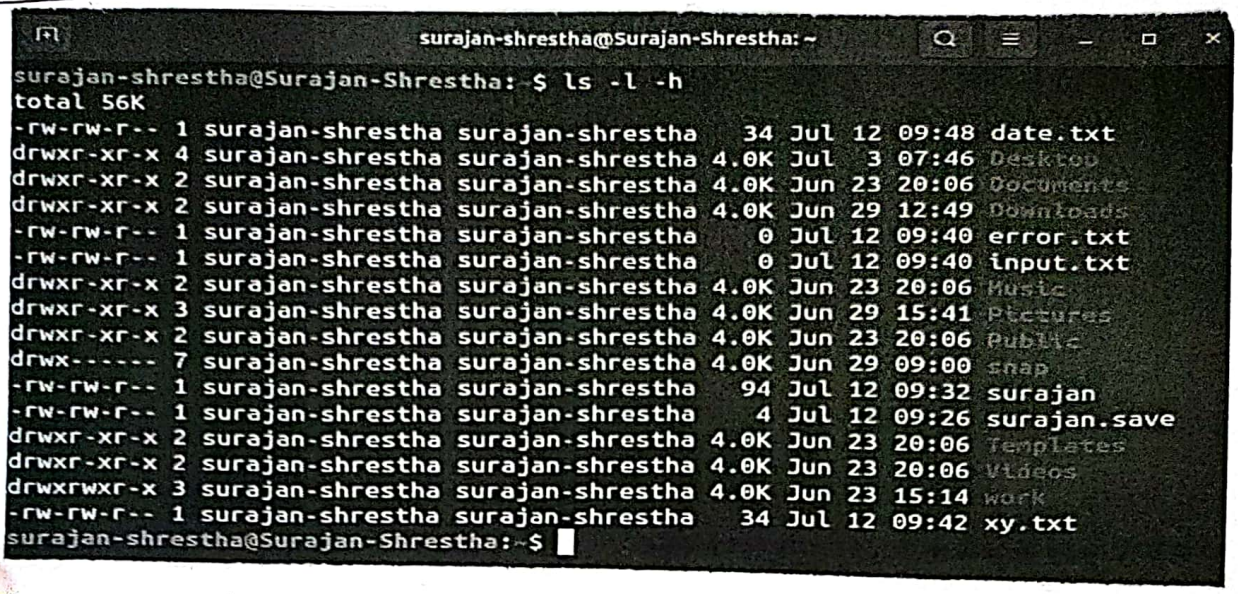


C> Listing x files :

1> $ls -h :



2> $ ls -l -h :-



Discussion:

→ In this lab, we explored various fundamental commands in Ubuntu Linux. These commands serves as building blocks for more advanced operations and understanding the Linux operating system. The 'echo', 'cal' and 'clear' commands demonstrate basic terminal interactions. The file handling commands, including 'nano', 'cat', 'date', and 'cut'. Illustrate how to create, view and manipulate files. Listing commands like 'ls -h' and 'ls -l -h' show how to display files in a directory with human readable formats.

understanding the structure of the manual ('man' pages) is crucial for self-learning and troubleshooting in Linux. The 'man' command provides detailed information about other commands, including their options and usage.

CONCLUSION:

→ This lab provided an introduction to essential linux commands and their practical usage. By mastering these commands users can effectively interact with the ubuntu operating system, manage files and utilize the terminal for various tasks. The knowledge gained from this lab forms the foundation for more advanced linux operations and system administration tasks.