# 4ITRC2 Operating System Lab

# Lab Assignment 2

# Aim: To study and understand Ubuntu Commands

# To perform: Execute different CommandsLinux Commands and Their Usage

## Part 1: Outputs of Linux Commands

1. pwd: Prints the current working directory.
2. cd: Changes the current directory.
3. ls: Lists files and directories in the current location.
4. mkdir: Creates a new directory.
5. rm: Removes a file or directory.
6. touch: Creates an empty file.
7. hostname: Displays the system's hostname.
8. cat: Displays the content of a file.
9. chmod: Changes file permissions.
10. echo: Prints text or variables.
11. grep: Searches for a pattern in files.
12. fgrep: Similar to grep but treats patterns literally.
13. mv: Moves or renames a file.
14. cp: Copies files and directories.
15. more: Views file content page by page.
16. less: Similar to 'more', but allows backward scrolling.
17. wc: Counts lines, words, and characters in a file.
18. awk: A text processing tool.
19. sed: A stream editor for modifying text.
20. tail: Displays the last few lines of a file.

## Part 2: Answers to the Questions

### How to navigate to a Specific Directory?

cd /path/to/directory

### How to see detailed information about files and directories using ls?

ls -l

### How to create multiple directories in Linux using `mkdir` command?

mkdir dir1 dir2 dir3

### How to remove multiple files at once with rm?

rm file1 file2 file3

### Can rm be used to delete directories?

Yes, using: rm -r directory\_name

### How Do You Copy Files and Directories in Linux?

cp file1 file2 destination/  
cp -r dir1 dir2 destination/

### How to Rename a file in Linux Using mv Command?

mv oldname.txt newname.txt

### How to Move Multiple files in Linux Using mv Command?

mv file1 file2 file3 destination/

### How to Create Multiple Empty Files by Using Touch Command in Linux?

touch file1 file2 file3

### How to View the Content of Multiple Files?

cat file1 file2

### How to Create a file and add content in Linux Using `cat` Command?

cat > filename (then type content, press Ctrl+D to save)

### How to Append the Contents of One File to the End of Another File using cat command?

cat file1 >> file2

### How to use cat command if the file has a lot of content and can’t fit in the terminal?

cat largefile | less

### How to Merge Contents of Multiple Files Using `cat` Command?

cat file1 file2 > mergedfile

### How to use cat Command to Append to an Existing File?

cat file1 >> file2

### What is `chmod 777`, `chmod 755`, and `chmod +x` or `chmod a+x`?

* + chmod 777 file: Full permissions for everyone.  
    - chmod 755 file: Owner has all permissions, others have read and execute.  
    - chmod +x file: Makes a file executable.  
    - chmod a+x file: Adds execute permission to all users.

### How to find the number of lines that matches the given string/pattern?

grep -c 'pattern' filename

### How to display the files that contain the given string/pattern?

grep -l 'pattern' \*

### How to show the number of files with the line matched?

grep -l 'pattern' \* | wc -l

### How to match the lines that start with a string using grep?

grep '^string' filename

### Can the `sort` command be used to sort files in descending order by default?

No, use: sort -r filename

### How can I sort a file based on a specific column using the `sort` command?

sort -k 2 filename (sorts based on the second column)