**Assignment 1: Linux Basics**

**Objective:**

This assignment demonstrates fundamental Linux command-line operations including file and directory management, viewing file contents, searching patterns, compressing and decompressing files, downloading files from the web, managing permissions, and working with environment variables. Each task is completed using core Linux commands and is essential for anyone pursuing system administration or DevOps roles.

**Task Overview:**

**1. Creating and Renaming Files/Directories**

* Created a directory named test\_dir using mkdir.
* Created an empty file example.txt inside test\_dir using touch.
* Renamed example.txt to renamed\_example.txt using the mv command.

A screenshot of a computer

AI-generated content may be incorrect.

**2. Viewing File Contents**

* Used cat to display the full contents of /etc/passwd.

A screen shot of a computer screen

AI-generated content may be incorrect.

* Displayed the **first 5 lines** of /etc/passwd using head -n 5.
* Displayed the **last 5 lines** of /etc/passwd using tail -n 5.

A computer screen shot of a computer program

AI-generated content may be incorrect.

**3. Searching for Patterns**

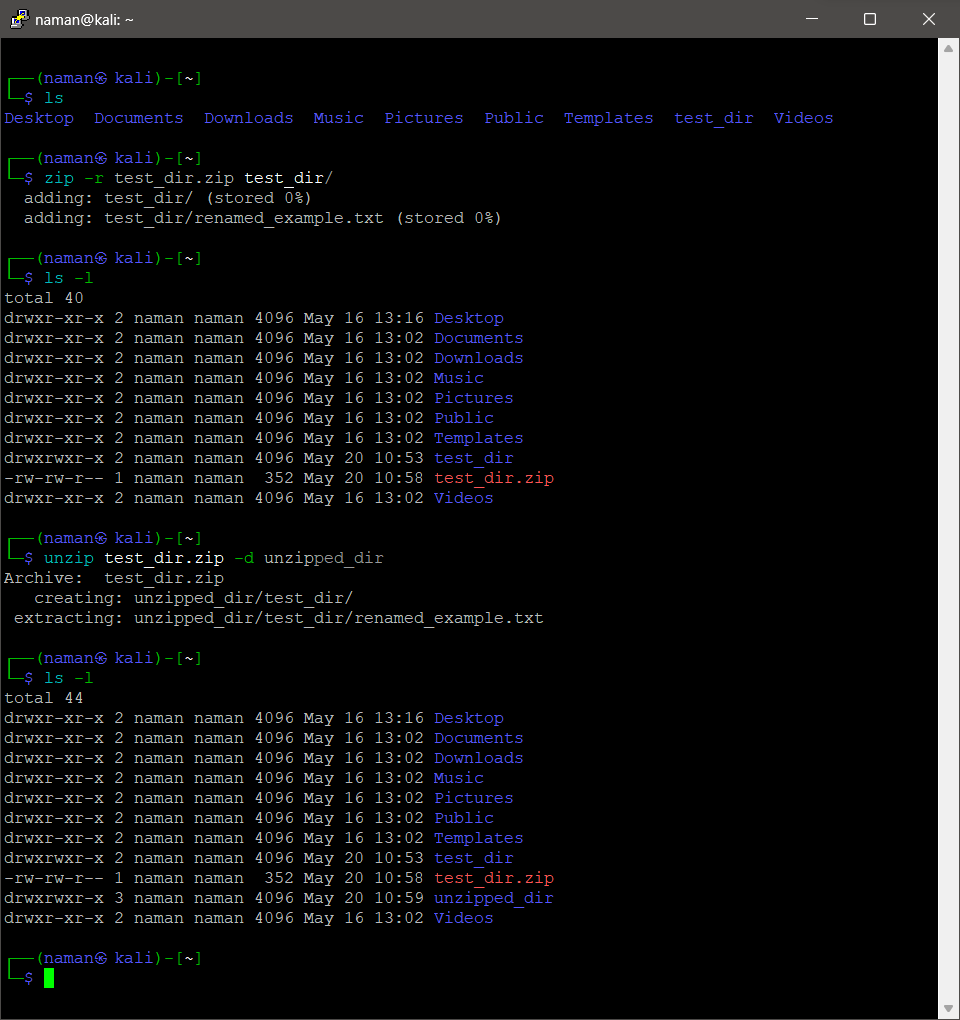
* Used grep "root" to find all occurrences of the word "root" within /etc/passwd.

A computer screen shot of a computer screen

AI-generated content may be incorrect.

**4. Zipping and Unzipping**

* Compressed the test\_dir directory into a zip file named test\_dir.zip using zip -r.
* Unzipped test\_dir.zip into a new directory unzipped\_dir using unzip.



**5. Downloading Files**

* Downloaded a file using wget from a sample URL (https://github.com/trinib/Linux-Bash-Commands/blob/main/README.md).

A screenshot of a computer screen

AI-generated content may be incorrect.

**6. Changing Permissions**

* Created a file named secure.txt using touch.
* Modified its permission to **read-only** for all users using chmod 444 secure.txt.

A screenshot of a computer program

AI-generated content may be incorrect.

**7. Working with Environment Variables**

* Set a new environment variable MY\_VAR with the value "Hello, Linux!" using the export command.

A screenshot of a computer

AI-generated content may be incorrect.