COS Assignment 1

*Problem 1: Read the instructions carefully and answer accordingly. If there is*

*any need to insert some data then do that as well.*

*a) Navigate and List:*

*a. Start by navigating to your home directory and list its contents. Then, move into a*

*directory named "LinuxAssignment" if it exists; otherwise, create it in Working directory.*

(base) Harshals-MacBook-Air:/ harshaltarmale$ cd ~

(base) Harshals-MacBook-Air:~ harshaltarmale$ ls

Applications Downloads Music Public opt

Desktop Library Pictures config

Documents Movies Projects dirtest

(base) Harshals-MacBook-Air:~ harshaltarmale$ cd Projects/CDAC/operating\_Systems/

(base) Harshals-MacBook-Air:operating\_Systems harshaltarmale$ mkdir LinuxAssignment

(base) Harshals-MacBook-Air:operating\_Systems harshaltarmale$ cd LinuxAssignment/

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$

*b) File Management:*

*a. Inside the "LinuxAssignment" directory, create a new file named "file1.txt". Display its*

*contents.*

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ pwd

/Users/harshaltarmale/Projects/CDAC/operating\_Systems/LinuxAssignment

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ touch file1.txt

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ cat > file1.txt

Hi this is file 1

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ cat file1.txt

Hi this is file 1

*c) Directory Management:*

*a. Create a new directory named "docs" inside the "LinuxAssignment" directory.*

(base) Harshals-MacBook-Air:~ harshaltarmale$ cd Projects/CDAC/operating\_Systems/LinuxAssignment

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ mkdir docs

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ ls

docs file1.txt

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$

*d) Copy and Move Files:*

*a. Copy the "file1.txt" file into the "docs" directory and rename it to "file2.txt".*

*e) Permissions and Ownership:*

*a. Change the permissions of "file2.txt" to allow read, write, and execute permissions for*

*the owner and only read permissions for others. Then, change the owner of "file2.txt" to*

*the current user.*

*f) Final Checklist:*

*a. Finally, list the contents of the "LinuxAssignment" directory and the root directory to*

*ensure that all operations were performed correctly.*

*g) File Searching:*

*a. Search for all files with the extension ".txt" in the current directory and its subdirectories.*

*b. Display lines containing a specific word in a file (provide a file name and the specific*

*word to search).*

*h) System Information:*

*a. Display the current system date and time.*

(base) Harshals-MacBook-Air:LinuxAssignment harshaltarmale$ date

Mon Aug 18 20:07:31 IST 2025

*i) Networking:*

*a. Display the IP address of the system.*

*b. Ping a remote server to check connectivity (provide a remote server address to ping).*

*j) File Compression:*

*a. Compress the "docs" directory into a zip file.*

*b. Extract the contents of the zip file into a new directory.*

*k) File Editing:*

*a. Open the "file1.txt" file in a text editor and add some text to it.*

*b. Replace a specific word in the "file1.txt" file with another word (provide the original*

*word and the word to replace it with).*