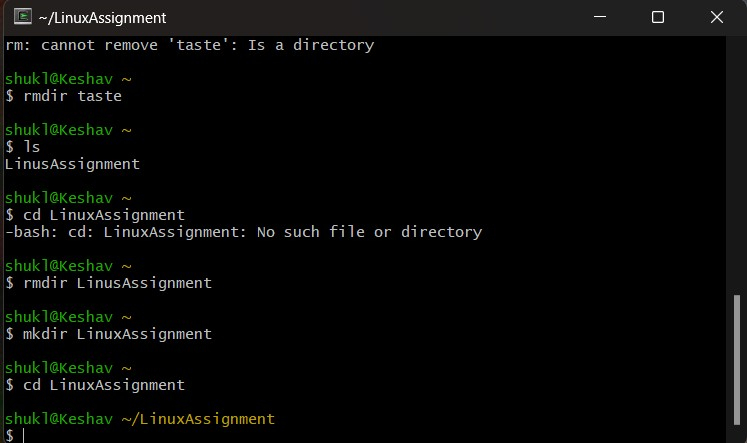
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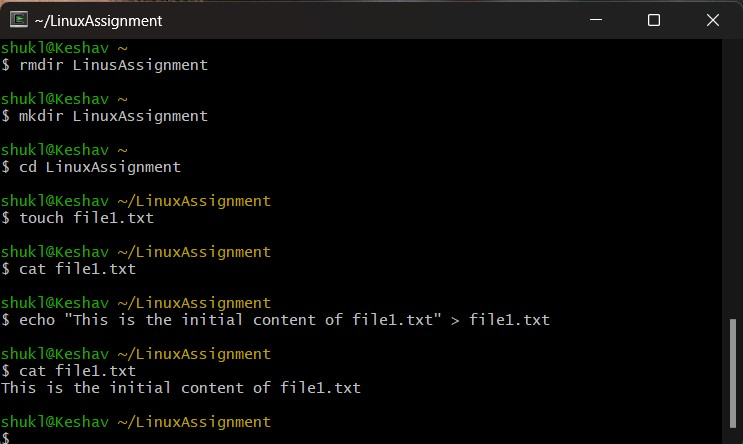
Concepts of Operating System Assignment 1

Problem 1: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.

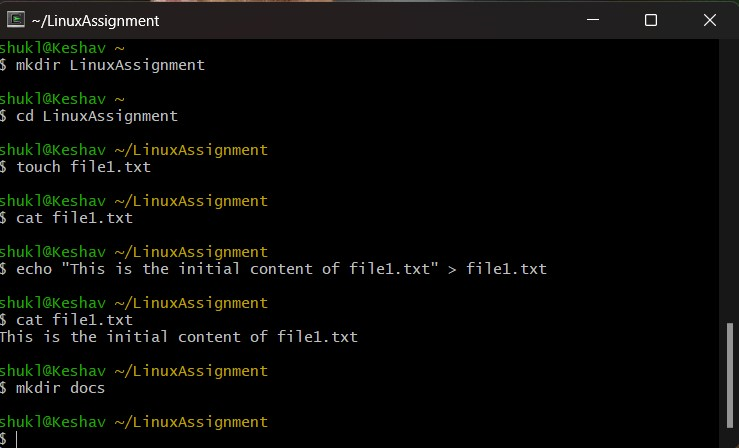
1. Navigate and List:
   1. Start by navigating to your home directory and list its contents. Then, move into a directory named "LinuxAssignment" if it exists; otherwise, create it.



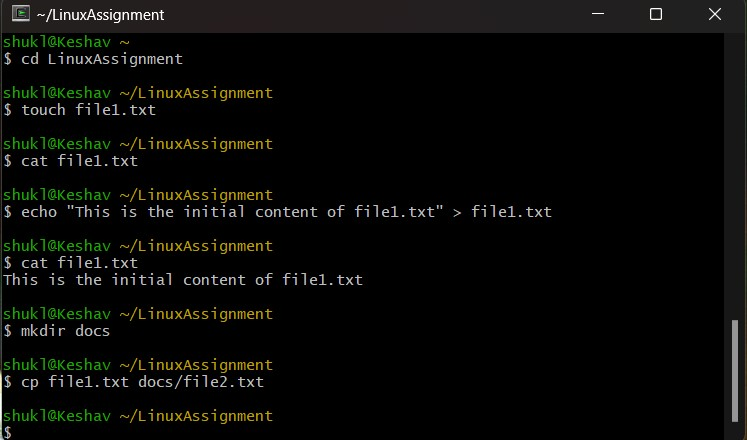
1. File Management:
   1. Inside the "LinuxAssignment" directory, create a new file named "file1.txt". Display its contents.



1. Directory Management:
   1. Create a new directory named "docs" inside the "LinuxAssignment" directory.



1. Copy and Move Files:
   1. Copy the "file1.txt" file into the "docs" directory and rename it to "file2.txt".



1. Permissions and Ownership:
   1. 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.

A screenshot of a computer

Description automatically generated

1. Final Checklist:
   1. Finally, list the contents of the "LinuxAssignment" directory and the root directory to ensure that all operations were performed correctly.

A screenshot of a computer

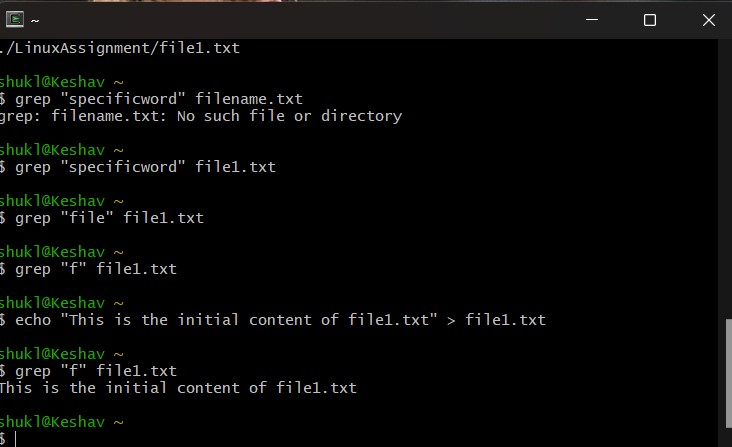
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1. File Searching:
   1. Search for all files with the extension ".txt" in the current directory and its subdirectories.

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* 1. Display lines containing a specific word in a file (provide a file name and the specific word to search).



1. System Information:
   1. Display the current system date and time.

A screenshot of a computer

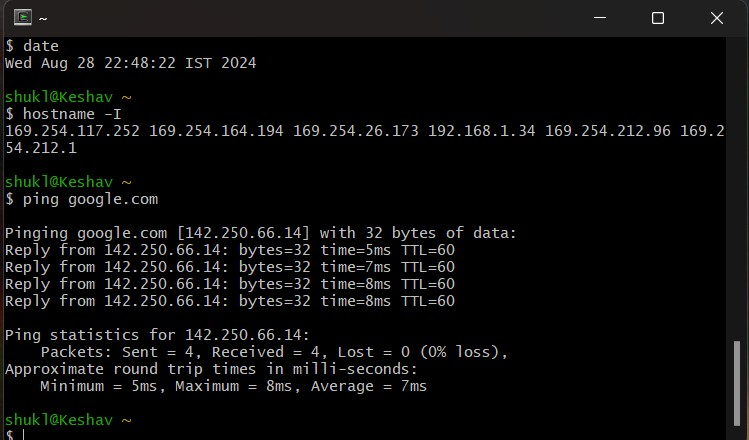
Description automatically generated

1. Networking:
   1. Display the IP address of the system.

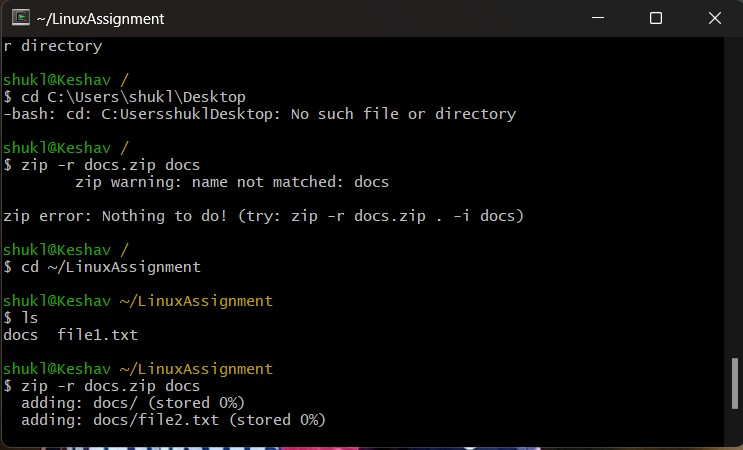
A computer screen shot of a computer

Description automatically generated

* 1. Ping a remote server to check connectivity (provide a remote server address to ping). j) File Compression:



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



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

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Description automatically generated

k) File Editing:

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

A computer screen shot of a black screen

Description automatically generated

1. Replace a specific word in the "file1.txt" file with another word (provide the original word and the word to replace it with).
2. A screenshot of a computer

   Description automatically generated

Problem 2: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.

1. Suppose you have a file named "data.txt" containing important information. Display the first 10 lines of this file to quickly glance at its contents using a command.

A screenshot of a computer

Description automatically generated

1. Now, to check the end of the file for any recent additions, display the last 5 lines of "data.txt" using another command.

A screenshot of a computer

Description automatically generated

1. In a file named "numbers.txt," there are a series of numbers. Display the first 15 lines of this file to analyze the initial data set.

A screenshot of a computer

Description automatically generated

1. To focus on the last few numbers of the dataset, display the last 3 lines of "numbers.txt".

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Description automatically generated

1. Imagine you have a file named "input.txt" with text content. Use a command to translate all lowercase letters to uppercase in "input.txt" and save the modified text in a new file named "output.txt."

A computer screen shot of a black screen

Description automatically generated

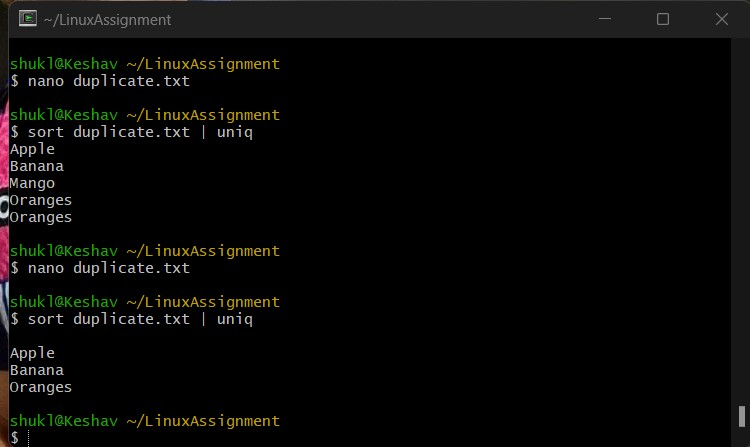
A screenshot of a computer

Description automatically generated

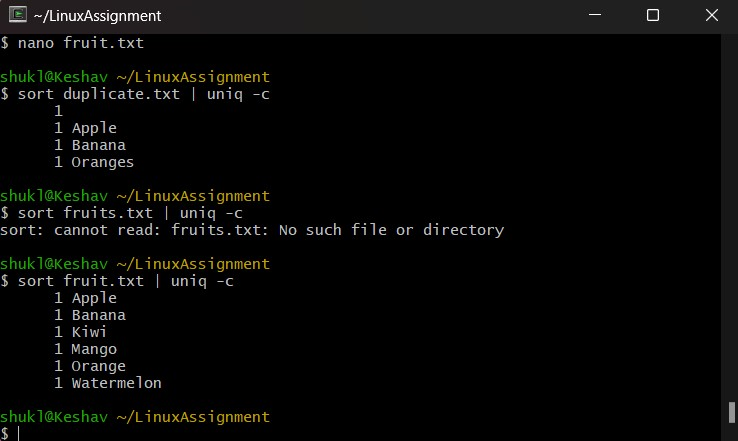
A screen shot of a computer

Description automatically generated

1. In a file named "duplicate.txt," there are several lines of text, some of which are duplicates. Use a command to display only the unique lines from "duplicate.txt."



1. In a file named "fruit.txt," there is a list of fruits, but some fruits are repeated. Use a command to display each unique fruit along with the count of its occurrences in "fruit.txt."



Submission Guidelines:

 Document each step of your solution and any challenges faced.



Upload it on your GitHub repository

Additional Tips:



Experiment with different options and parameters of each command to explore their

functionalities.