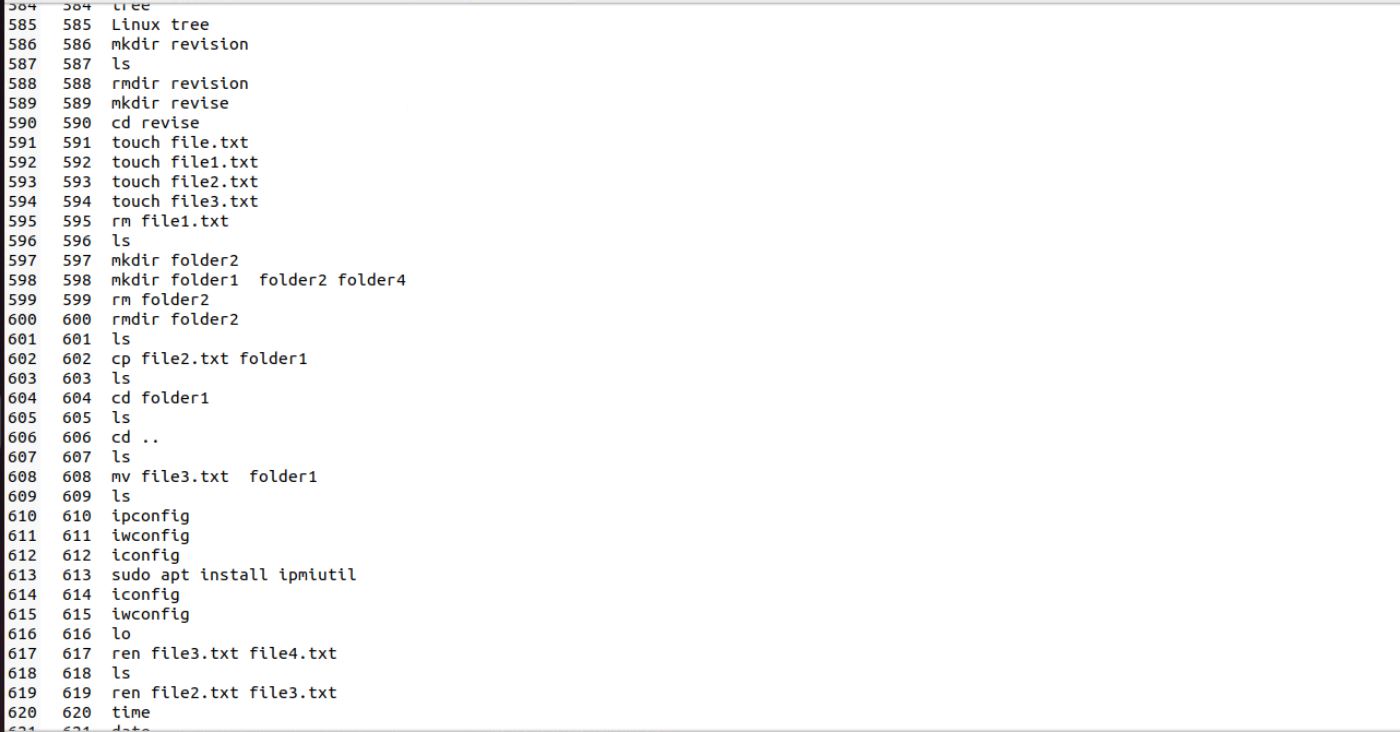
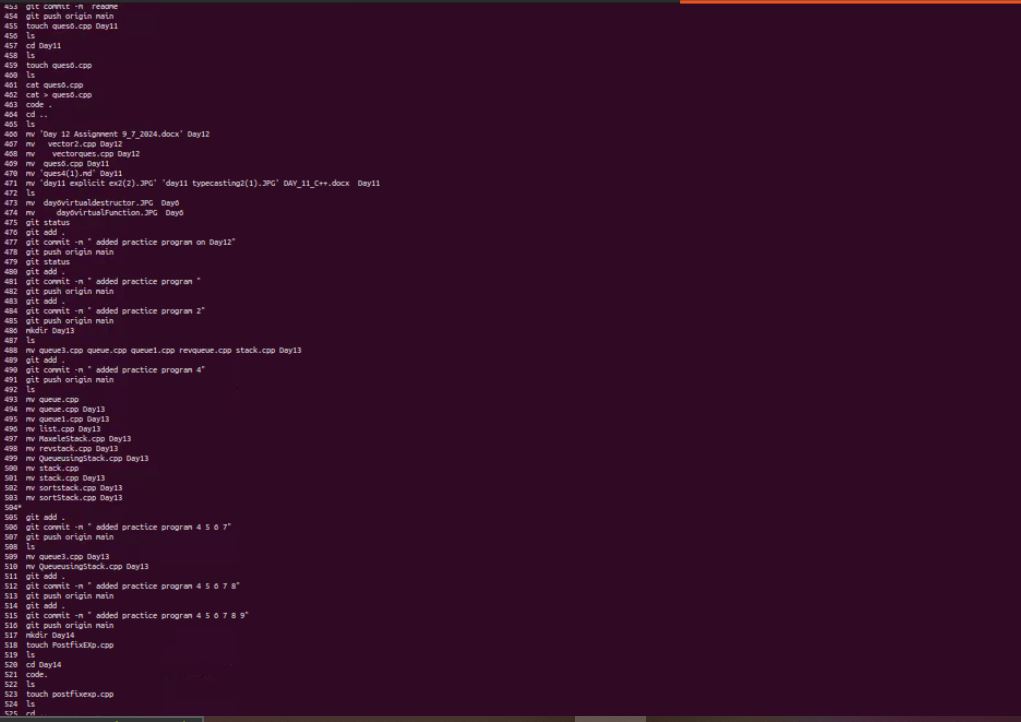
16/7/24 LSP DAY1

**Basic Linux Commands + Assignment**





Top 20 Basic Commands with Use Cases and Exercises  
While there are many commands across different operating systems and applications, here are 20 basic commands commonly found on computers:

1. dir (Windows) / ls (Linux/macOS): Lists the contents of a directory.

Use Case: You want to see all the files and folders in your current location.  
Exercise: Open a terminal window (Command Prompt on Windows, Terminal on macOS/Linux) and type dir (Windows) or ls (Linux/macOS). Press Enter.  
2. cd (all): Changes the current directory.

Use Case: You want to navigate to a different folder on your computer.  
Exercise: Try cd Desktop (Windows/Linux/macOS) to navigate to your Desktop folder. Then use dir (Windows) or ls (Linux/macOS) to see the contents.  
3. mkdir (all): Creates a new directory.

Use Case: You want to organize your files by creating a new folder.  
Exercise: Use mkdir Documents (Windows/Linux/macOS) to create a new folder named "Documents". Then use dir (Windows) or ls (Linux/macOS) to see if it's there.  
4. rm (Linux/macOS) / del (Windows): Deletes a file or directory (use with caution!).

Use Case: You want to remove an unwanted file or folder.  
Exercise: Important: Never delete anything critical! In a safe space (like a temporary folder), create a text file named "test.txt" and then use rm test.txt (Linux/macOS) or del test.txt (Windows) to delete it.  
5. copy (Windows) / cp (Linux/macOS): Copies a file.

Use Case: You want to duplicate a file to another location.  
Exercise: Create another text file named "test2.txt". Use copy test.txt test2.txt (Windows) or cp test.txt test2.txt (Linux/macOS) to copy "test.txt" as "test2.txt".  
6. move (Windows) / mv (Linux/macOS): Moves a file from one location to another.

Use Case: You want to organize your files by moving them to a different folder.  
Exercise: Use move test2.txt Documents (Windows) or mv test2.txt Documents (Linux/macOS) to move "test2.txt" to the "Documents" folder (assuming it exists).  
7. rename (Windows) / mv (Linux/macOS): Renames a file.

Use Case: You want to give a file a different name.  
Exercise: Use rename test.txt newname.txt (Windows) or mv test.txt newname.txt (Linux/macOS) to rename "test.txt" to "newname.txt".  
8. ping (all): Checks if another computer is reachable on a network.

Use Case: You want to see if you can connect to a website or another device.  
Exercise: Use ping [google.com](http://google.com/) (all) to see if you can reach Google's servers.  
9. ipconfig (Windows) / ifconfig (Linux/macOS): Shows network configuration information.

Use Case: You want to troubleshoot network connectivity issues.  
Exercise: Use ipconfig (Windows) or ifconfig (Linux/macOS) to see your IP address and other network details.  
10. help (all): Provides help information for other commands.

Use Case: You're unsure about how to use a specific command.  
Exercise: If you're stuck on command like mv, type help mv (all) to see a manual page with usage information.  
11. clear (all): Clears the screen (text) in the terminal window.

Use Case: Your terminal window is cluttered with previous commands, and you want a clean slate.  
Exercise: Type clear (all) to clear the screen.  
12. date (all): Shows the current date and time.

Use Case: You need to know the current date and time.  
Exercise: Type date (all) to see the current date and time.

14. time (all): (continued) You want to see how long a command takes to execute.

Exercise: Try time ls (all) to see how long it takes to list the directory contents.  
15. mkdir -p (Linux/macOS): Creates a directory and any missing parent directories.

Use Case: You want to create a new folder within a nested structure that might not exist yet.  
Exercise: Use mkdir -p Documents/Subfolder1/Subfolder2 (Linux/macOS) to create "Subfolder 2" within "Subfolder1" inside the "Documents" folder (assuming "Documents" exists).  
16. cat (Linux/macOS): Displays the contents of a text file.

Use Case: You want to read the contents of a text file without opening it in a separate program.  
Exercise: Create a text file with some content and use cat filename.txt (Linux/macOS) to see its contents.  
17. echo (all): Prints text to the terminal window.

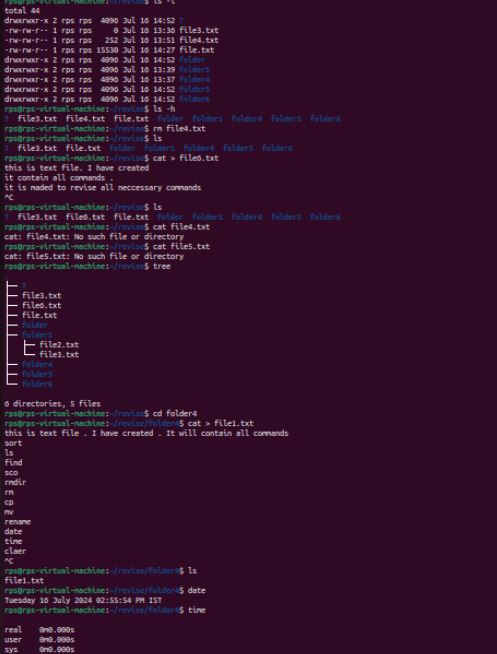
Use Case: You want to display a message or variable in the terminal.  
Exercise: Use echo Hello, world! (all) to print the message to the screen.  
18. sudo (Linux/macOS): Grants temporary superuser privileges to execute a command (use with caution!).

Use Case: You need to perform an action that requires administrative rights.  
Exercise: Important: Never use sudo for untrusted commands! In a safe scenario (like creating a test file), use sudo touch important.txt to create a file that might require admin access (assuming you have the password).  
19. shutdown (Linux/macOS) / shutdown /s /t (Windows): Initiates a system shutdown or restart.

Use Case: You want to turn off or restart your computer.  
Exercise: Important: Don't accidentally shut down your computer! This is for learning purposes only. Look up the specific options for your system to safely test a shutdown with a delay (e.g., shutdown /s /t 60 for Windows to shutdown in 60 seconds).  
20. history (all): Shows a list of previously entered commands.

Use Case: You want to see what commands you've used recently, in case you need to refer back to one.  
Exercise: Type history (all) to see a list of your recent commands.

21. grep- it stands for global regular expression.



**Ques-Write a command using ls to list all files (including hidden files) in the current directory and its subdirectories.**

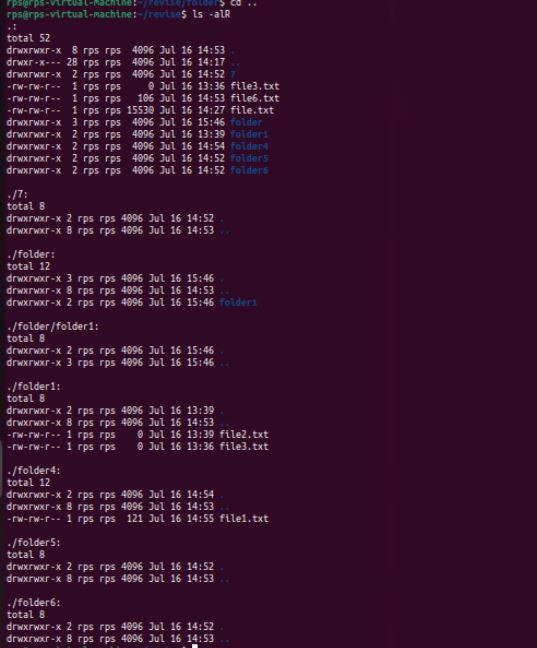
**Modify the previous command to display only files with a specific extension (e.g., .txt).**

**Enhance the report by including the file size for each listed file.**

**Further refine the output to display only files modified within the last 24 hours.**

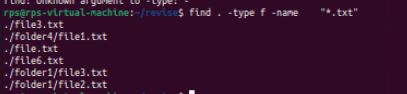
**Combine the functionalities from points 2 and 4 to list only files with a specific extension (e.g., .jpg) modified in the last day.**

to list all files (including hidden files) in the current directory and its subdirectories.

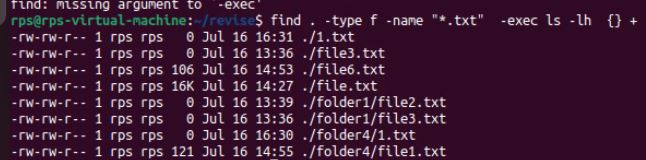


Modify the previous command to display only files with a specific extension (e.g., .txt).

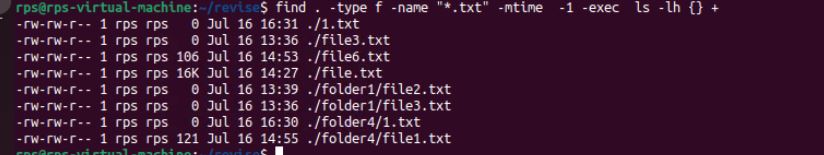
2> **List only file with specific extension**

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**3> the file size for each listed file.**

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**4> to display only files modified within the last 24 hours.**

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**5>to list only files with a specific extension (e.g., .jpg) modified in the last day.**

find . -type f -name “\*.jpg” -mtime -1 ls -lh {} +

Ques Use dir / ls to list all files and folders in your current directory. How many files are there? (Excluding hidden files if applicable)

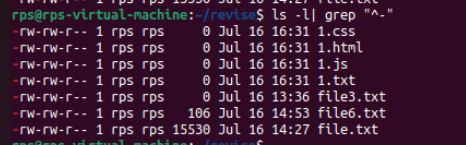
Utilize dir / ls with appropriate flags to display only files with a specific extension (e.g., .txt). How many files of that type exist?

Navigate to your Downloads folder using cd. Then, use dir / ls to list the contents. Are there any recently downloaded files (modified today)?

Use dir / ls with flags to display both the filename and its size for each file in your current directory. Identify the largest file.

Practice using dir / ls with wildcards (e.g., dir \*.docx) to list all files with a specific extension pattern (e.g., all Word documents).

1>List all files and folders in current directory (excluding hidden files):



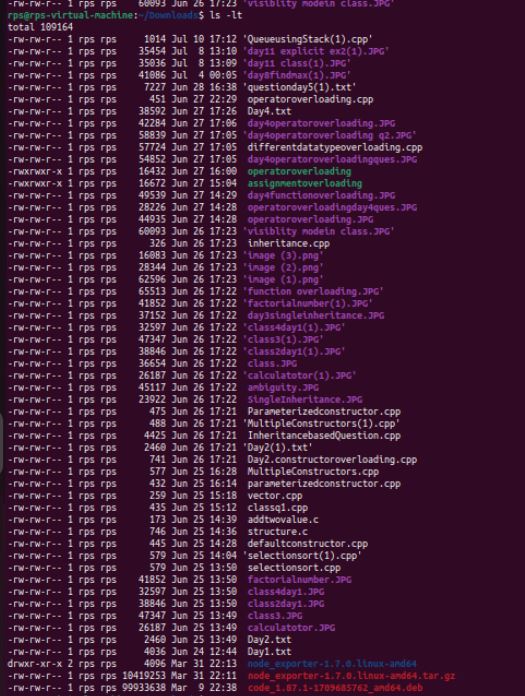
2>Count no of lines



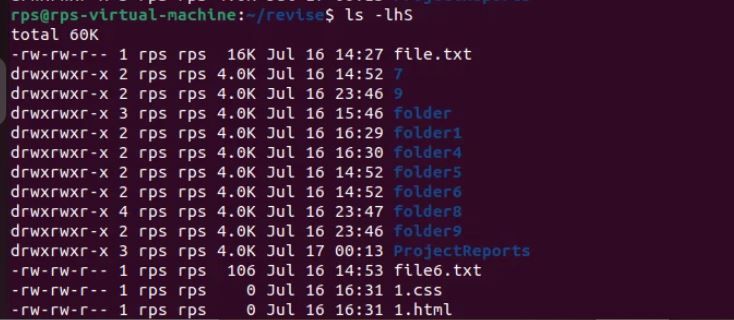
3>Display only files with a specific extension (e.g., .txt) and count them



4>Navigate to your Downloads folder using cd. Then, use dir / ls to list the contents. Are there any recently downloaded files (modified today)



5>**display both the filename and its size for each file in your current directory. Identify the largest file.**

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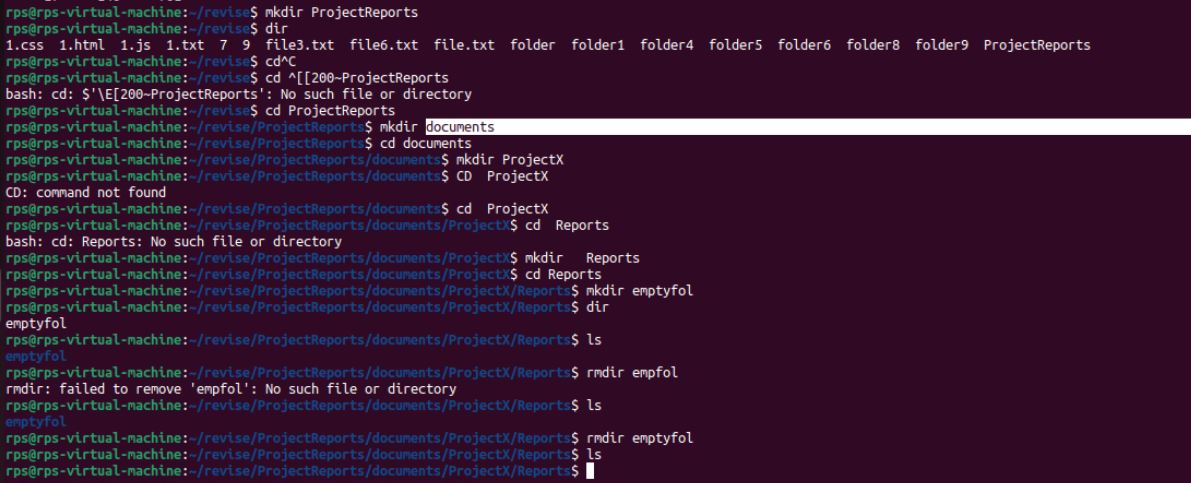
**6> \*List files with a specific wildcard pattern (e.g., .docx):**

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**Ques Create a new folder named "Project Reports" inside your Documents folder using mkdir. Verify its existence using dir / ls.**

**Practice using mkdir with multiple arguments to create a nested folder structure (e.g., mkdir Documents/ProjectX/Reports).Locate an empty folder you created earlier. Use rmdir to delete it. Confirm its removal with dir / ls.**

**Explore using dir / ls to identify empty folders within a specific directory.**

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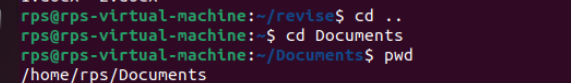
**Ques Use cd to navigate to your Documents folder. What is the full path of your Documents folder displayed by the prompt?**

**Practice using cd .. to move back one directory level from your current location.**

**Utilize pwd to display the full path of the current directory after navigating with cd.**

**Explore using directory shortcuts (e.g., ~ for home directory) with cd to quickly reach specific locations.**

**Combine cd with dir / ls to navigate to a specific folder and then list its contents.**

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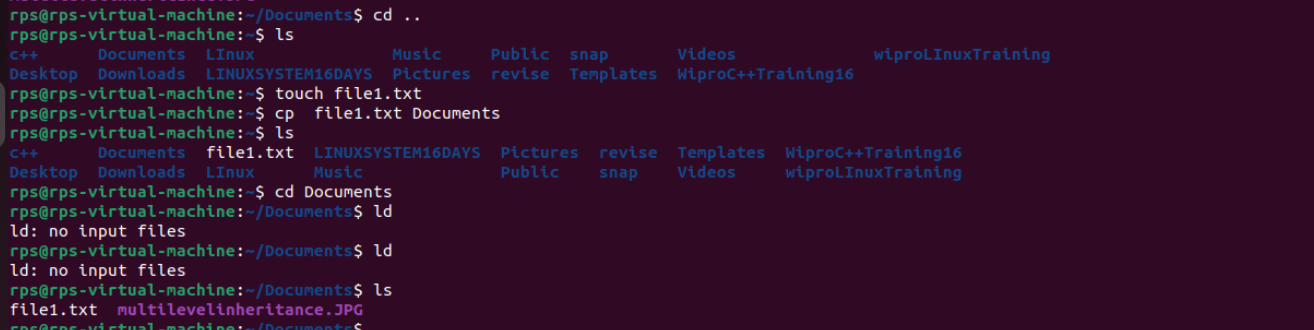
**Ques Identify a file on your Desktop. Use cp to copy that file to your Documents folder. Verify the copy exists in Documents.**

**Practice renaming a file on your Desktop using mv. Give it a new name and confirm the change using dir / ls.**

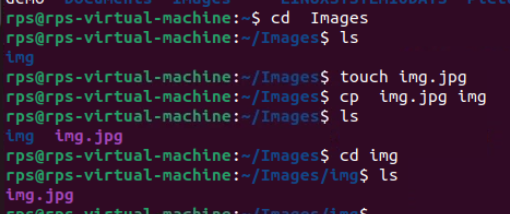
**Locate a folder containing images. Use cp to copy a specific image file from that folder to another folder.**

**Explore using mv to move a folder containing documents to a different location within your file system.**

**Try copying a file that already exists in the destination folder. What happens? (Experiment with different flags for cp if applicable on your system)**

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