

WSL (Windows Subsystem for Linux) Commands

Command	Explanation
wsl --list	Lists installed WSL distributions.
wsl --shutdown	Shuts down all running WSL instances.
wsl --unregister *	Unregisters all WSL distributions. (Removes them completely.)
wsl --install -d Ubuntu-24.04	Installs Ubuntu 24.04 in WSL.
wsl --terminate Ubuntu-24.04	Terminates the Ubuntu-24.04 instance.
wsl --unregister Ubuntu-24.04	Unregisters Ubuntu-24.04 (removes it completely).
wsl --install -d Ubuntu-24.04 --web-download	Installs Ubuntu-24.04 using a web download instead of the Microsoft Store.
wsl --set-default-version 2	Sets WSL 2 as the default version.
wsl --update	Updates the WSL kernel.

Enabling WSL & Virtualization

Command	Explanation
dism.exe /online /enable-feature /featurename:Microsoft-Windows-Subsystem-Linux /all /norestart	Enables the Windows Subsystem for Linux.
dism.exe /online /enable-feature /featurename:VirtualMachinePlatform /all /norestart	Enables virtualization for WSL 2.
dism.exe /online /disable-feature /featurename:Microsoft-Windows-Subsystem-Linux	Disables WSL.

MySQL Installation & Setup

Command	Explanation
sudo apt update	Updates package lists.
sudo apt install mysql-server -y	Installs MySQL Server without asking for confirmation (-y).
sudo service mysql start	Starts the MySQL service.
sudo mysql -u root -p	Logs into MySQL as root, prompting for a password.

Command	Explanation
CREATE DATABASE dbname;	Creates a database named dbname .

File Permissions & Ownership

Command	Explanation
chmod -R 777 a	Grants full permissions (read, write, execute) to all users for directory a. (-R applies recursively.)
chmod -R 700 b	Grants full access only to the owner (no permissions for others).
chmod 720 b	Grants read & write access to the owner, execute access to the group, and no access to others.
chmod u-w file	Removes write permission for the owner (u).
chmod g+x file	Adds execute permission for the group (g).
chmod o-rwx file	Removes all permissions from others (o).
chmod a+r file	Grants read permission to everyone (a).

Basic Linux Commands

Command	Explanation
pwd	Prints the current working directory.
ls	Lists files and directories in the current directory.
ls -a	Lists all files, including hidden files (those starting with .).
ls -l	Displays detailed information (permissions, owner, size, modification date) about files.
ls -la	Combines -l and -a to show detailed information including hidden files.
ls -lh	Displays file sizes in human-readable format (KB, MB, etc.).
ls -lrt	Lists files in long format (-l), sorted by modification time (-t), in reverse order (-r).
cd /mnt/	Changes the directory to /mnt/, which is the mount point for Windows drives in WSL.
cd	Moves to the home directory.

Command Explanation

`cd ..` Moves up one directory.

`history` Displays the history of executed commands.

File & Directory Management

Command	Explanation
<code>mkdir LinuxPractise</code>	Creates a directory named LinuxPractise .
<code>mkdir -p a/b/c/d/e/f/g/h/i/j/k/l/m/temp.txt</code>	Creates a nested directory structure with -p, avoiding errors if some folders exist. (Note: temp.txt will be a directory, not a file.)
<code>touch c406.txt</code>	Creates an empty file named c406.txt.
<code>touch {1..5}.txt</code>	Creates five empty files: 1.txt, 2.txt, 3.txt, 4.txt, 5.txt.
<code>touch {a..z}.txt</code>	Creates 26 files from a.txt to z.txt.
<code>rm -rf *</code>	Deletes all files and directories in the current location forcefully (-f) and recursively (-r).
<code>cp -rf b.txt /mnt/c/</code>	Copies b.txt to the C:\ drive in Windows (WSL path /mnt/c/).
<code>cp -rf a /mnt/c/Users/srs33/</code>	Copies directory a and its contents recursively to C:\Users\srs33.
<code>rm -rf /mnt/c/Users/srs33/a</code>	Deletes the folder a in C:\Users\srs33 forcefully.

File Permissions & Ownership

- **File Permissions (rwx):**
 - r (Read) = 4
 - w (Write) = 2
 - x (Execute) = 1
 - Example: `chmod 755 filename` gives **owner full access, others read & execute only**.

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Searching & Filtering

Command	Explanation
grep -Ril "jinesh"	Searches for the word "jinesh" in all files recursively , displaying file names (-i ignores case, -l lists file names).
`cat filename grep "word"`	

Disk & System Information

Command	Explanation
df -h	Displays disk space usage in human-readable format.
man ls	Opens the manual page for the ls command. (man provides documentation for any command.)
history	Displays command history.
vi .bash_history	Opens the shell history file in vi editor.
