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Unix Commands

1) Unix commands are set of commands that are used to interact with the Unix OS.

2) Developed by Dennis M. Ritchie and Ken Thompson at AT&T labs.

3) Unix is powerful, multi-user, multi-tasking OS.

4) Unix Commands are entered at the command prompt in a terminal window.

5) Unix Commands allow users to perform a wide variety of tasks, such as managing files and directories, running processes, managing user accounts and configuring network settings.

Types of Commands

1) File System Navigation Unix Command
2) File Manipulation Unix Command
3) Process management Unix Command
4) Text Processing Unix Command
5) Network Communication Unix Command
6) Text Editors in Unix

1) File System Navigation Unix Command

1) cd - changes the current working directory.
→ cd Document

2) ls - lists files and directories in the current directory
→ ls

3) pwd - Prints the current working directory
→ pwd.

4) mkdir - Creates a new directory
→ mkdir new_folder

5) rmdir - Removes an empty directory
→ rmdir empty_folder

6) mv - Moves files or directories
→ mv file1.txt Documents/

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2) File Manipulation Unix Command

1) touch - Create empty file
or Updates the access and modification times.
→ touch new-file.txt

2) cp - Copies files or directories
→ cp file1.txt file2.txt

3) mv - Moves files OR Directories.

4) rm - Removes files or directories.
→ rm old-file.txt

5) chmod - changes the permissions of a file or directory
→ chmod 644 file.txt

6) chown - changes the owner and group of a file or directory
→ chown user : group file.txt

7) ln - create links between files.
→ ln -s target-file symlink

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8) cat - Concatenates files and displays their contents
→ cat file1.txt file2.txt

9) head - Displays the first few lines of a file.
→ head file.txt

10) tail - Displays the last few lines of a file.
→ tail. file.txt.

11) more - Displays the contents of a file page by page
→ more file.txt

12) less - Displays the contents of a file with advanced navigation features.
→ less file.txt.

13) diff - Compares file lines by line
→ diff file1.txt file2.txt

14) patch - Applies a diff file to update a target file.
→ patch file.txt < changes.diff

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Process Management Unix Commands

1) ps - Display information about active processes, including their status and IDs.
→ ps aux

2) top - Displays a dynamic real-time view of system processes and their resource usage.
→ top

3) kill - Terminate processes using their process IDs.
→ kill <pid>

4) pkill - sends signals to processes based on name or other attributes.
→ pkill -9 firefox

5) killall - Terminates process by name
→ killall -9 firefox

6) renice - changes the priority of running processes.
→ renice -n 10 <pid>

7) nice - Runs a command with modified scheduling priority

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8) pstree - Display running process as a tree

→ ~~pttree~~ pstree

9) pgrep - searches for processes by name or other attributes.

→ pgrep firefox

10) jobs - lists active jobs and their status in the current shell session.

→ jobs.

11) bg - Puts a job in the background

→ bg <job-id>

12) fg - Brings a background job to the foreground.

→ bg <job-id>

13) nohup - Runs a command immune to hangups, with output to a specified file

14) disown - Removes jobs from the shell's job table, allowing them to run independently.

→ disown <job-id>

Text Processing Unix Commands

1) grep - Searches for patterns in text files
→ grep "error" logfile.txt

2) sed - Process and transforms text streams.
→ sed 's/old-string/new-string/g' file.txt

3) awk - Processes and analyzes text files using a patterns scanning and process language.
→ awk '{print $1, $3}' data.csv

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Network Communication Unix Commands

1) ping - Tests connectivity with another host using ICMP echo requests.

→ ping google.com

2) traceroute - Traces the route that packets take to reach a destination

→ traceroute google.com

3) nslookup - Queries DNS servers for domain name resolution and IP address information.

4) dig - Performs DNS queries, providing detail information about DNS records.

→ dig google.com.

5) host - performs DNS lookups, displaying domain name to IP address resolution

→ host google.com

6) whois - Retrives information about domain registration and ownership

→ whois google.com

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7) ssh - provides secure remote access to a system.

→ ssh username@hostname

8) scp - securely copies files between hosts over a network

→ scp file.txt username@hostname : /path/

9) ftp - Transfers files between hosts using the file Transfer protocol (FTP)

→ ftp hostname.

10) telnet - Establishes interactive text-based communication with a remote host.

→ telnet hostname.

11) netstat - Displays network connections, routing tables, interface statistics, masquerade connections, and multicast memberships.

→ netstat -tuln

12) ifconfig - Display or configures network interfaces and their settings.

→ ifconfig

13)

13) iwconfig - configures wireless network interfaces
→ iwconfig wlan0

14) route - Displays or modifies the IP routing table
→ route -n

15) arp - Display or modifies the address Resolution Protocol (ARP) cache.
→ arp -a

16) ss - Displays socket statistics
→ ss -tuln

17) hostname - Display or sets the system's hostname
→ hostname

18) mtr - Combines the functionality of ping and traceroute, providing detailed network diagnostic information.
→ mtr google.com

System Administration Unix Commands.

1) df - Display disk space usage
→ df -h

2) du - Display disk usage of files and directories
→ du -sh /path/to/directory

3) crontab -e - Manages cron jobs, which are scheduled tasks that run at predefined times or intervals.
→ crontab -e

Text Editors in Unix

1) vi /vim

2) Emacs

3) Nano

4) Ed

5) Jed