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FINAL ASSIGNMENT

QUESTION 1

Command	Description	Formula/Syntax	Examples
<code>awk</code>	Powerful text processing	<code>awk 'pattern {action}' filename</code>	- Extract columns, calculate averages, replace text
<code>cat</code>	Concatenate files	<code>cat filename1 filename2</code>	- Combine files, send file to program
<code>cp</code>	Copy files/directories	<code>cp source destination</code>	- Copy file, copy directory with contents, copy multiple files
<code>cut</code>	Extract fields from files	<code>cut -d delimiter [field_numbers] filename</code>	- Extract columns from CSV, cut specific characters, find matching lines
<code>grep</code>	Search for patterns	<code>grep 'pattern' filename</code>	- Find lines with keywords, use regular expressions, show line numbers
<code>head</code>	View file beginnings	<code>head [-n number] filename</code>	- Show first 10 lines, print first line only, preview large files
<code>ls</code>	List directory contents	<code>ls [options]</code>	- Show files/folders, detailed information, hidden files
<code>man</code>	Read command manuals	<code>man command_name</code>	- Get help for specific commands, search manual pages
<code>mkdir</code>	Create directories	<code>mkdir directory_name</code>	- Make new directory, create parent directories automatically
<code>mv</code>	Move/rename files/directories	<code>mv source destination</code>	- Move file, rename file, move directory
<code>tac</code>	Print file lines in reverse	<code>tac filename</code>	- Reverse a file's content
<code>tail</code>	View file endings	<code>tail [-n number] filename</code>	- Show last 10 lines, follow log file updates
<code>touch</code>	Create empty files	<code>touch filename</code>	- Make new files quickly

Command	Description	Formula/Syntax	Examples
<code>tr</code>	Translate/substitute characters	<code>tr 'from' 'to' filename</code>	Replace characters, uppercase/lowercase text, remove unwanted characters
<code>tree</code>	Display directory structure	<code>tree [directory]</code>	- Show directory hierarchy, visualize folder organization

QUESTION 2

1)Handling Multiple Terminals:

Open new terminals: Right-click the terminal window and choose "Open in New Tab" or "New Terminal."

Switch between terminals: Use keyboard shortcuts like Ctrl+Tab or Alt+Tab on most systems.

Organize terminals: Tile them side-by-side or stack them vertically for better viewing.

2)Mastering Manual Pages:

Access a manual page: Use `man command_name`. Example: `man ls` for the `ls` command.

Navigate the manual: Scroll with arrow keys or Page Up/Down. Use `n` for next page and `p` for previous.

Search the manual: Type `/keyword` to search for a specific term within the manual page.

3)Redirecting Output:

Output to a file: Use `>` to overwrite or `>>` to append the output to a file. Example: `ls > file_list.txt`

Pipe output to another command: Use `|` to send the output of one command as input to another. Example: `ls | grep "txt"`

4)Appending and Wildcards:

Append to a file: Use `>>` after the command. Example: `ls >> file_list.txt` to add new entries without deleting existing ones.

Wildcards: Use `*` for any characters and `?` for a single character. Example: `cp *.txt backup/` copies all text files.

5)Batch Operations:

Copy/move multiple files: Use wildcards or space-separated names. Example: `cp file1.txt file2.txt backup/` or `mv *.* new_folder/`.

Brace expansion: Group files with braces `{start..end}` or `{pattern}`. Example: `mv file{1..5} new_folder/` moves files 1 to 5.

6)Building Directory Structures:

Create multiple directories with one command: Use `mkdir`.

Example: `mkdir -p project/data/logs` creates the entire "project/data/logs" path if it doesn't exist.

FINISH
