Introduction to Shell

Shell: A command-line interface that interprets typed commands and sends them to the operating system

Command Prompt: The indicator showing the shell is ready for the next command

Filesystem: The structure that organizes files and directories on a computer

Absolute Path: A full path starting from the root `/` that specifies a file's exact location

Relative Path: A path that specifies a file location starting from the current directory

Home Directory (~): The user's default workspace, represented by `~`.

Current Working Directory: The directory where the shell currently operates; shown by `pwd`

cd command: Changes the current working directory

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Wildcards: Pattern-matching symbols like `*`, `?`, and `{}` used to select groups ofiles

Redirection (> <):Uses `>` to send output to a file and `<` to use a file as commaninput

Pipes (|):Send the output of one command into another as input

Environment Variable,"System-defined variable storing environment information, e.g.`HOME`, `USER`

Shell Variable: User-defined variable created within the shell session, e.g., `x=value`

echo command: Prints text or the value of variables

cat command: Displays or concatenates the contents of files

head / tail command: Show the first or last lines of a file; `-n` adjusts the number displayed

cut command: Extracts specific columns or fields from a file using delimiters

grep command: Searches for text patterns in files; supports flags like `-v`, `-n`, `-c`

sort command:Sorts lines alphabetically or numerically; `-r` reverses order

uniq command:Removes adjacent duplicate lines; `-c` counts occurrences

wc command: Counts lines, words, or characters; `-l` counts lines

cp command: Copies files or directories

mv command: Moves or renames files or directories