

Terminal

Provide an interface to execute commands on the GUI desktop.

Take user input, pass it to the shell as a command, retrieve the output for each executed command, and display it.

Shell

Provide a command prompt on the terminal.

Interpret the word typed at the command prompt, find a matching program, command, or script in predefined directories called PATH, and execute it.

Send the output to the terminal or the specified location.

Command structure

There are two types of parameters: compulsory and optional.

Compulsory parameters are required for the command or option to function.

Optional parameters are used, as required, to customize the output.

Parameters contain options and arguments.

Options are keywords mapped to the command's built-in functions for customizing the output.

Arguments are the information you provide to the option or command.

Arguments are also known as inputs or operands.

The shell

The shell searches folders defined in the **\$PATH** variable for a matching executable for the command typed on the command prompt. It always starts searching from the leftmost folder and checks the next folder path only if an executable for the specified command is not available in that folder. So, if a command is available in two or more folders, the shell will execute only the command available in the leftmost folder. Once a match is found for a command, it never checks the next folder in the path. If it does not find a matching executable for any command, it returns an error like **COMMAND NOT FOUND**.

Case sensitive

Linux commands are case sensitive. If you type a command in a different case, it will not work.

Key points: -

The **\$PATH** variable defines the folders the shell searches for the given command.

There are many shells. Only a few of them are used.

The Bash shell is the default shell on almost all modern Linux distributions.

There are two ways to specify an option: short form and long form.

In short form, a single dash is used with a letter that denotes the option.

In long form, two dashes are used with a word that defines what the option does.

Long form is not available for all options.

You can combine short-form options, but not long-form options. You must specify the long-form separately.

Use the **-h** option with the command to view all available options and their meanings that you can use with the command.

Commands

<code>\$echo \$0</code>	Display the current default shell.
<code>\$cat /etc/shells</code>	List all available shells on the system.
<code>\$exec [pathname of the new shell]</code>	Change the default shell to the given shell



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The PATH variable defines the folders the shell searches when you run a command.
The Bash shell is the default shell on almost all modern Linux distributions.
Linux commands are case-sensitive. If you type a command in a different case, the shell will not accept it and will probably return an error.