

Terminal vs Shell

A **terminal** is the window where you type. A **shell** is the program that reads what you type and runs it (e.g., bash, zsh, fish).

You talk to the OS through the shell. This course uses a Bourne-style shell (bash/zsh).

Which shell am I using?

Print the value of the SHELL environment variable:

```
echo $SHELL
```

Typical outputs: `/bin/bash`, `/bin/zsh`.

bash and zsh – at a glance

- bash: ubiquitous default on many distros; great for scripts.
- zsh: interactive niceties (completion, prompts) while staying Bourne-compatible for most everyday commands.

You can learn one and be productive in both.

Prompt anatomy

A common prompt looks like this:

```
user@host:~$
```

- `user` – your account name
 - `host` – machine name
 - `~` – your home directory
 - `$` – normal user (`#` means root)
-

Command anatomy

Pattern you'll see everywhere:

```
command [options] [arguments]
```

Example:

```
echo Hello
```

`echo` is the command; `Hello` is an argument printed to the screen.

type vs which – what will run?

Discover how the shell resolves a name.

`type` (shell builtin) tells if something is a builtin, alias, function, or an external program:

```
type echo
```

`which` searches your PATH and shows the path to an external program:

```
which echo
```

If `type` says “builtin”, `which` may print nothing for that name.

Manual pages (man)

Read full documentation for a command:

```
man echo
```

Navigation keys inside `man`:

- Space / Page Down – next page
 - b / Page Up – previous page
 - /pattern – search forward
 - n / N – next / previous match
 - q – quit
-

man sections (concept)

Manuals are grouped into sections (1: user cmds, 5: file formats, 8: admin, etc.).

Open a specific section if names clash:

```
man 1 printf  
man 3 printf
```

(Only use if you encounter multiple entries.)

info pages

Some tools use the GNU Info system for their primary docs:

```
info coreutils
```

Navigation: Space → next, Backspace → previous, **q** → quit.

Session hygiene – history

List your recent commands with line numbers:

```
history
```

Press ↑ or ↓ to scroll through previous commands at the prompt. You can re-edit and re-run them quickly.

Session hygiene – clear & reset

Clear the visible screen contents:

```
clear
```

If your terminal display gets garbled (binary noise, weird characters), re-initialize it:

```
reset
```

`reset` is safe; it just redraws and resets modes.

Keyboard shortcuts (must-know)

Shortcut	What it does
Ctrl+C	Stop current running command
Ctrl+D	Exit shell or end input line
Ctrl+L	Clear screen (like <code>clear</code>)
↑ / ↓	Browse command history
Tab	Auto-complete names



Thanks !

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