



Intro to Linux

Understand the basics. Create your first file.

Linux is the open-source kernel at the heart of many operating systems. It manages resources such as memory and devices. A **distribution**, such as Ubuntu, adds tools, software management, and often a desktop. Linux powers servers, cloud workloads, and personal computers. [1]

01 Know the pieces

A **terminal** is the text window. A **shell**, such as Bash, reads commands and runs programs. A **directory** is a folder. The graphical desktop and terminal can work with the same files. [2]

02 Five useful commands

<code>pwd</code>	Show your current directory.
<code>ls -la</code>	List entries, including hidden ones, with details.
<code>cd ~</code>	Go to your home directory.
<code>cd ..</code>	Move to the parent directory.
<code>ls --help</code>	Read help for the ls command.

03 Read a path

`/` starts an absolute path at the filesystem root. `~` means your home; `.` means here; `..` means the parent. Paths are normally case-sensitive: `Notes.txt` and `notes.txt` can be different files. [2]

04 Try it: your first file

Use a **Linux terminal with Bash** in a writable folder you own. Run one line at a time. If the first line reports an existing folder, choose a new folder name for the first two lines. Stop on other errors.

```
mkdir sca-linux-lab
cd sca-linux-lab
printf 'Hello, Linux!\n' > hello.txt
cat hello.txt
ls -l hello.txt
```

Check: `cat` prints **Hello, Linux!** The final command lists the new file. `printf` writes text; `\n` adds a newline; `>` sends output to a file and can overwrite it. [2, 3]

05 Build good habits

Read commands before running them. Use `pwd` to confirm your location. `sudo` runs an authorized command as another user, usually the administrator; this exercise does not need it. [2]

Quick check: After `cd ..`, did your file disappear? **No.** You moved up a directory; the file stays inside `sca-linux-lab`.

TAKE IT WITH YOU

You can now navigate, create a folder, and read a file. Next, learn permissions and your distribution's package manager. These basics carry into Linux servers and cloud virtual machines.

Sources & next steps: [1] [Linux kernel](#) | [2] [Ubuntu terminal tutorial](#) | [3] [GNU Bash manual](#)