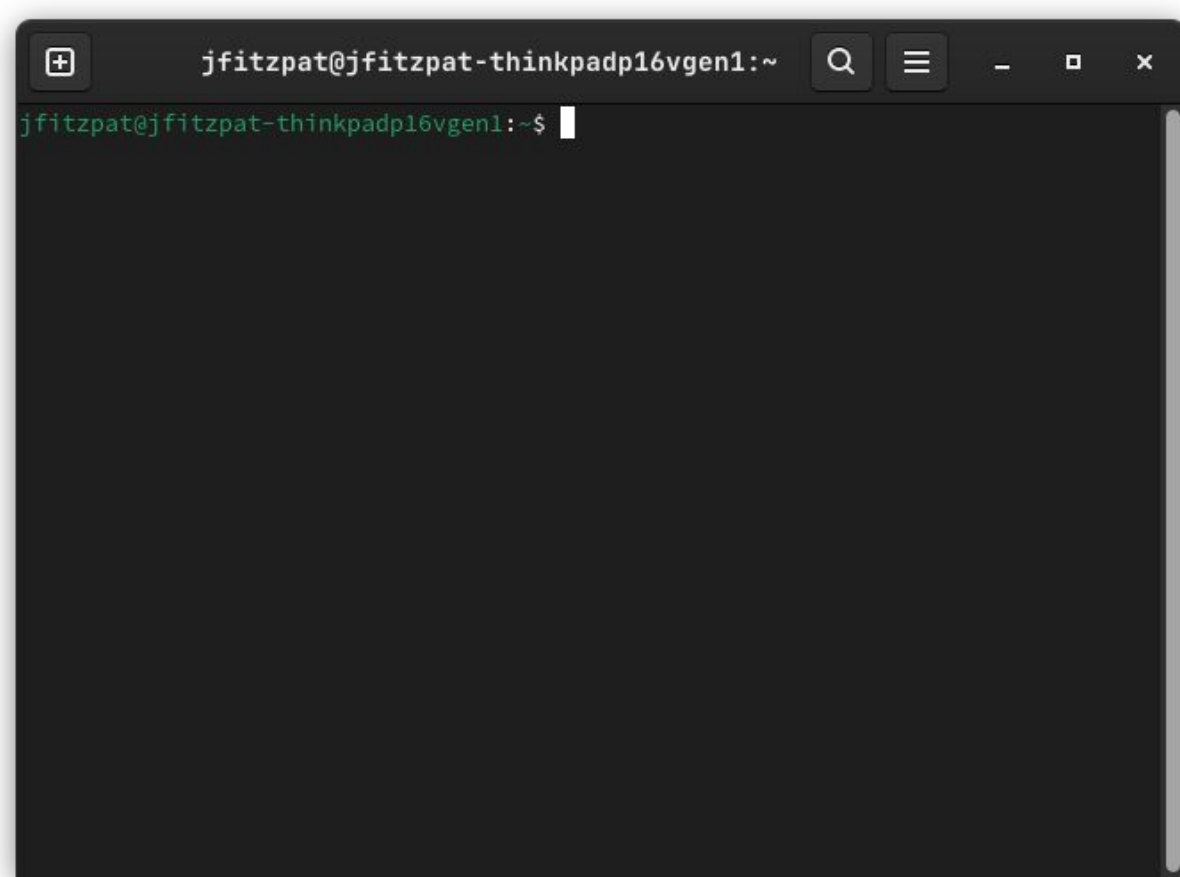




# Introduction to the Terminal

The black window with a blinking cursor

# Introduction to the Terminal



- ▶ What is the terminal
- ▶ Launching the terminal
- ▶ What is a command
- ▶ Installing an application (Intro to sudo)
- ▶ Run the application

---

# What is the Terminal?

# What is the Terminal?

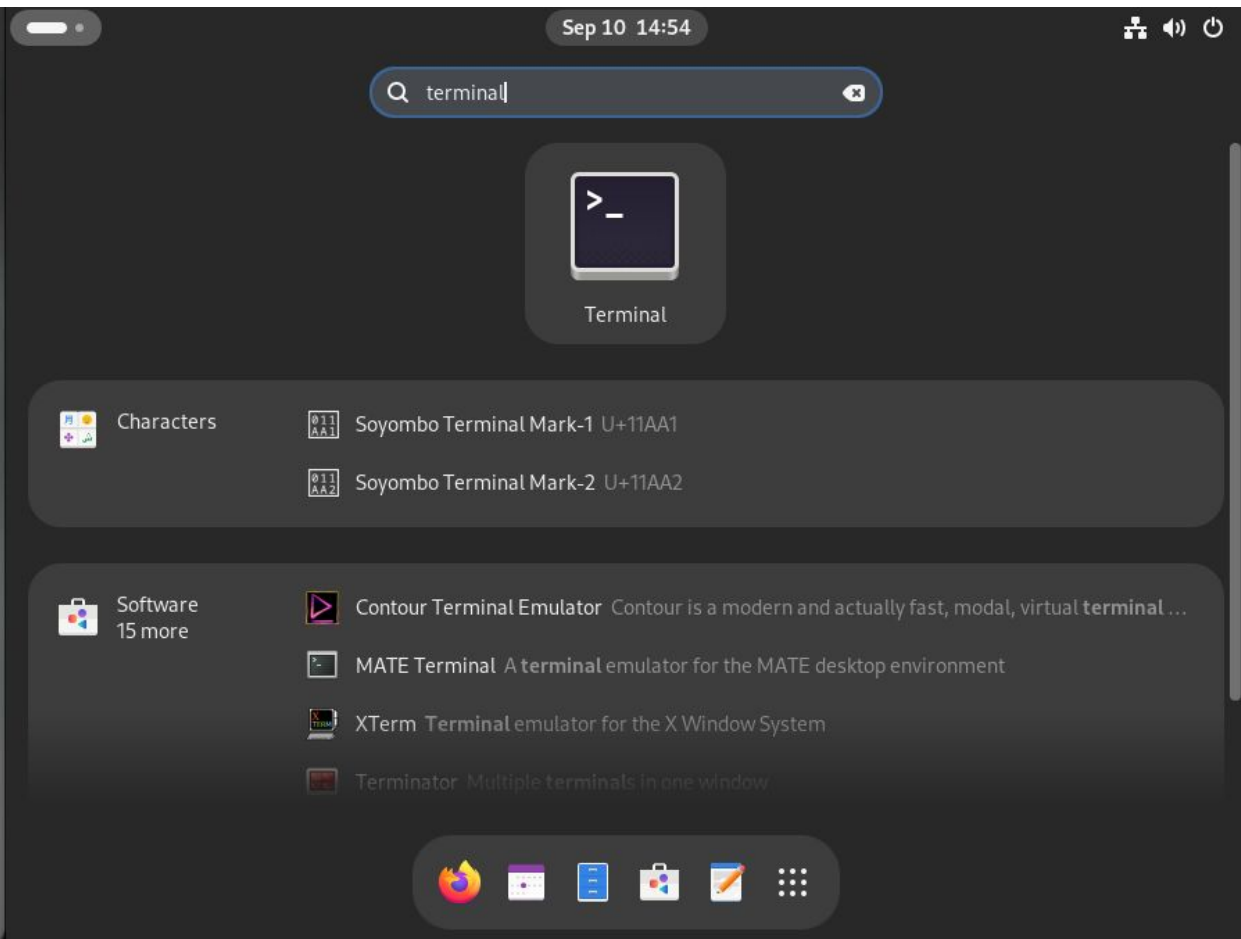
The Terminal is a text based interface to the operating system. It has a number of advantages over a graphical user interface.

- ▶ Quick access to a wide range of applications
- ▶ Complex actions can be done in a small number of steps
- ▶ History and shareability
- ▶ Chainability
- ▶ It is your space

---

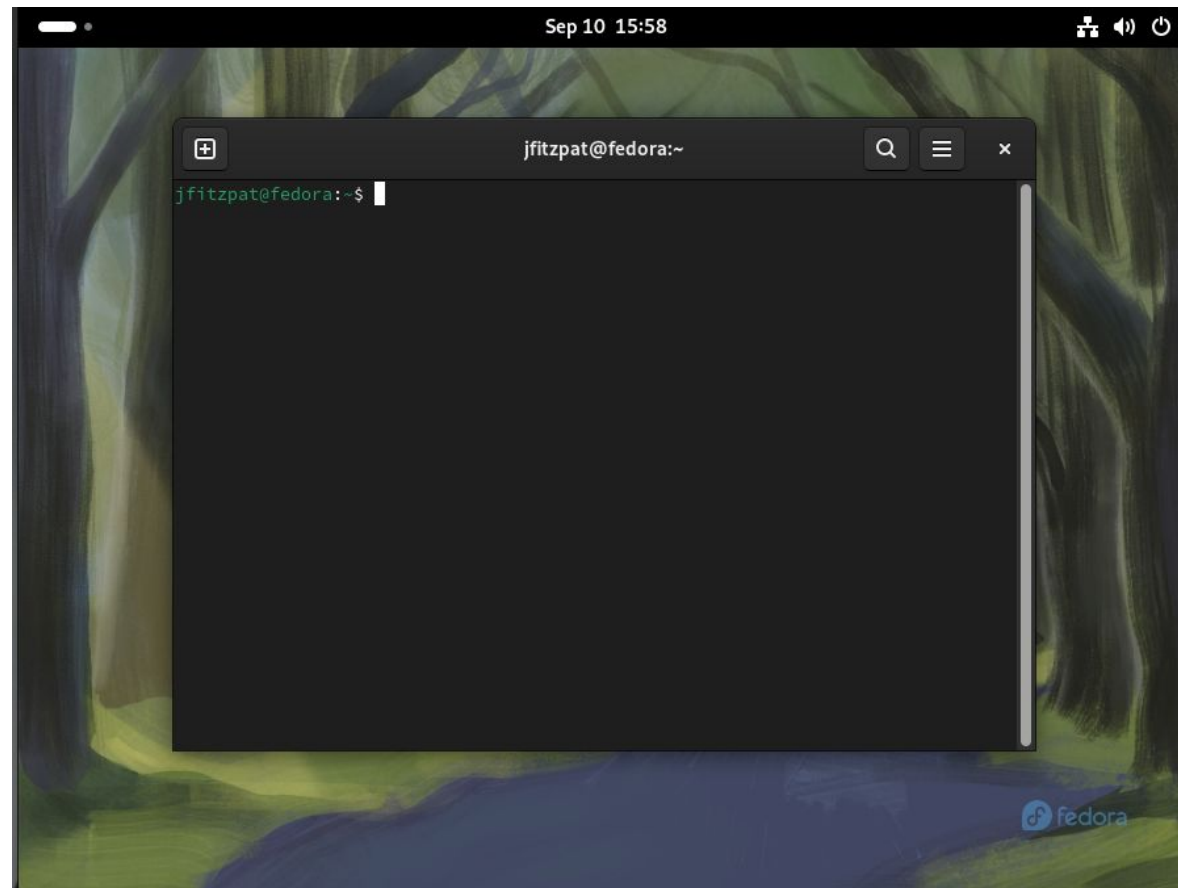
# Launching the terminal

# Launching the terminal



- ▶ Open the applications menu with the windows key or by the pager in the top left of the screen
- ▶ Search for “terminal”
- ▶ Select the “terminal” to launch it.

# Launching the terminal



---

# What is a command



# What is a command

The command is a general term for the action that you wish the terminal to perform. A command can be simple or more complex with the use of flags and arguments.

`firefox --new-window www.redhat.com`

# firefox --new-window www.redhat.com



The first component, "firefox", is the command to run. The command can be an application or an alias.



Flags come after the the command. These will have one or two dashes "-" in front. For single dashes normal it is a one letter flag and two dashes are in front of a word. "--new-window" is the flag in the example. You can use many flags at one time.



Arguments are text added to the command or flags. In this case it is the Red Hat url for the --new-window flag. An argument must contain no space or not it is two arguments. Putting string in quotes is one way to allow spaces in the argument.

---

# Installing an application

# Installing an application

Installing applications from the terminal requires the use of a package manager. For this we use dnf. There are three commands that we will look at.

- ▶ `dnf search`
- ▶ `dnf install`
- ▶ `dnf remove`

# Searching for applications

```
jfitzpat@fedora:~$ dnf search cowsay
Copr repo for PyCharm owned by phracek      13 kB/s | 2.9 kB    00:00
Fedora 40 - x86_64                          8.7 MB/s | 20 MB    00:02
Fedora 40 openh264 (From Cisco) - x86_64    2.1 kB/s | 1.4 kB    00:00
Fedora 40 - x86_64 - Updates                7.5 MB/s | 9.9 MB    00:01
google-chrome                               11 kB/s | 1.8 kB    00:00
RPM Fusion for Fedora 40 - Nonfree - NVIDIA Dri 6.9 kB/s | 4.9 kB    00:00
RPM Fusion for Fedora 40 - Nonfree - Steam    2.4 kB/s | 1.5 kB    00:00
===== Name Exactly Matched: cowsay =====
cowsay.noarch : Configurable speaking/thinking cow
===== Name & Summary Matched: cowsay =====
cowsay-beefymiracle.noarch : Cowsay file for the Beefy Miracle
===== Name Matched: cowsay =====
xcowsay.x86_64 : Displays a cute cow and message on your desktop
jfitzpat@fedora:~$
```

`dnf search <APPLICATION>`

Running the command show a list of applications that match for the search.

# Elephant in the room

## sudo

Sudo is an administrative command that is used to allow your user do more in the system. Caution should be taken when using sudo. With great power comes great responsibility.

- ▶ Gives elevated permissions
- ▶ Temporary permissions, per command
- ▶ Requires a password

# Install an application

```
jffitzpat@fedora:~$ sudo dnf install cowsay
[sudo] password for jffitzpat:
Last metadata expiration check: 0:01:23 ago on Thu 26 Sep 2024 09:43:35.
Dependencies resolved.
=====
Package           Architecture Version           Repository        Size
=====
Installing:
cowsay            noarch          3.8.3-1.fc40      updates           53 k
=====
Transaction Summary
=====
Install 1 Package

Total download size: 53 k
Installed size: 79 k
Is this ok [y/N]: y
Downloading Packages:
cowsay-3.8.3-1.fc40.noarch.rpm                227 kB/s | 53 kB    00:00
-----
Total                                          117 kB/s | 53 kB    00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      :                                1/1
  Installing     : cowsay-3.8.3-1.fc40.noarch     1/1
  Running scriptlet: cowsay-3.8.3-1.fc40.noarch    1/1

Installed:
cowsay-3.8.3-1.fc40.noarch

Complete!
jffitzpat@fedora:~$
```

`sudo dnf install <APPLICATION>`

- ▶ `sudo` allows increased permission
- ▶ The `<APPLICATION>` name must be a full match
- ▶ Need to confirm the install

# Removing an application

```
jfitzpat@fedora:~$ sudo dnf remove cowsay
[sudo] password for jfitzpat:
Dependencies resolved.
=====
Package            Architecture Version      Repository    Size
=====
Removing:
cowsay             noarch      3.8.3-1.fc40 @updates      79 k
Transaction Summary
=====
Remove 1 Package

Freed space: 79 k
Is this ok [y/N]: y
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      :                                1/1
  Erasing        : cowsay-3.8.3-1.fc40.noarch    1/1
  Running scriptlet: cowsay-3.8.3-1.fc40.noarch    1/1

Removed:
cowsay-3.8.3-1.fc40.noarch

Complete!
jfitzpat@fedora:~$
```

`sudo dnf remove <APPLICATION>`

- ▶ `sudo` allows increased permission
- ▶ The `<APPLICATION>` name must be a full match
- ▶ Need to confirm the install



---

# Running the application

# Running the application

A terminal window titled 'jfitzpat@fedora:~' with search, menu, and close icons. The prompt is 'jfitzpat@fedora:~\$'. The command 'cowsay "hello world"' has been entered. The output shows the text '< hello world >' enclosed in a box, with a cow character below it. The prompt 'jfitzpat@fedora:~\$' is followed by a cursor.

```
jfitzpat@fedora:~$ cowsay "hello world"
< hello world >
      \      ^__^
       \      (oo)\_____
          (__)\       )\/\
              ||----w |
              ||     ||
jfitzpat@fedora:~$
```

cowsay <INPUT>

- ▶ Dnf is also an application
- ▶ All applications are launched in the same way
- ▶ Learning the commands of an application takes time and tools like help and man can be used

---

# Recap

- ▶ What is the terminal
- ▶ Launching the terminal
- ▶ What is a command
- ▶ Installing an application (Intro to sudo)
- ▶ Run the application

# Thank you

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