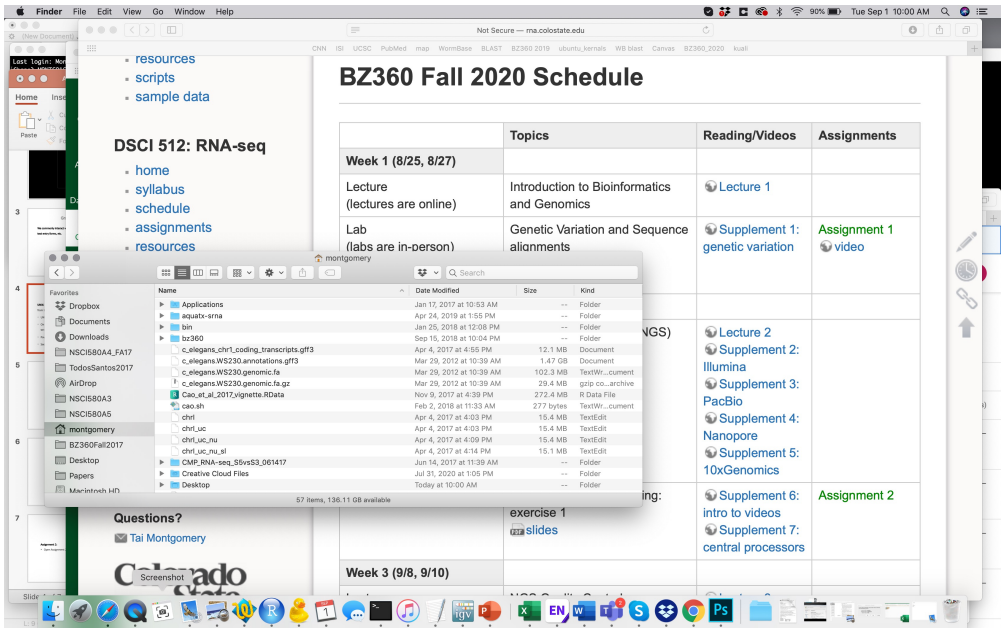
Working from the Command Line

https://dbsloan.github.io/TS2022/

Graphical User Interface (GUI)

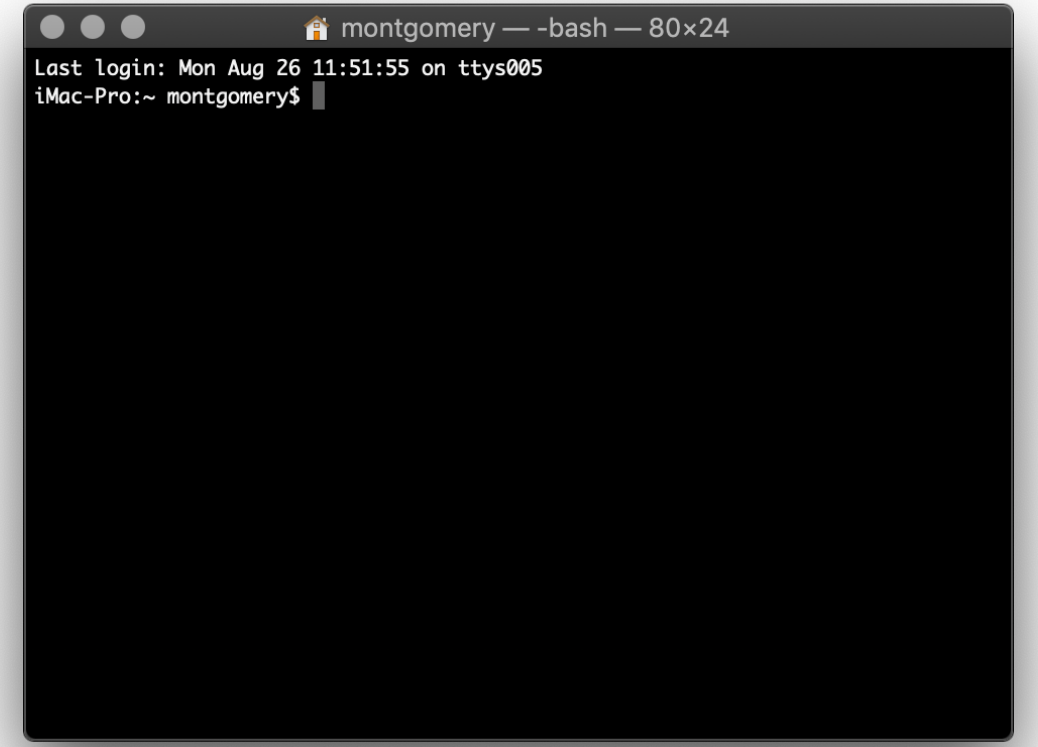
We commonly interact with computers through a GUI consisting of images, icons, text entry forms, etc.



But much of the software for analyzing genomics data doesn't have a GUI and instead accepts only text-based instructions.

These instructions are passed to the computer through Terminal software.

The terminal can also be used to provide more general instructions to the computer, but requires specific syntax.

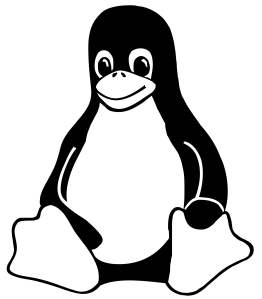

montgomery — -bash — 80×24
Last login: Mon Aug 26 11:51:55 on ttys005
iMac-Pro:~ montgomery$

UNIX and command line tools

Command-line interface: a text-based interface for passing instructions to the computer's operating system.

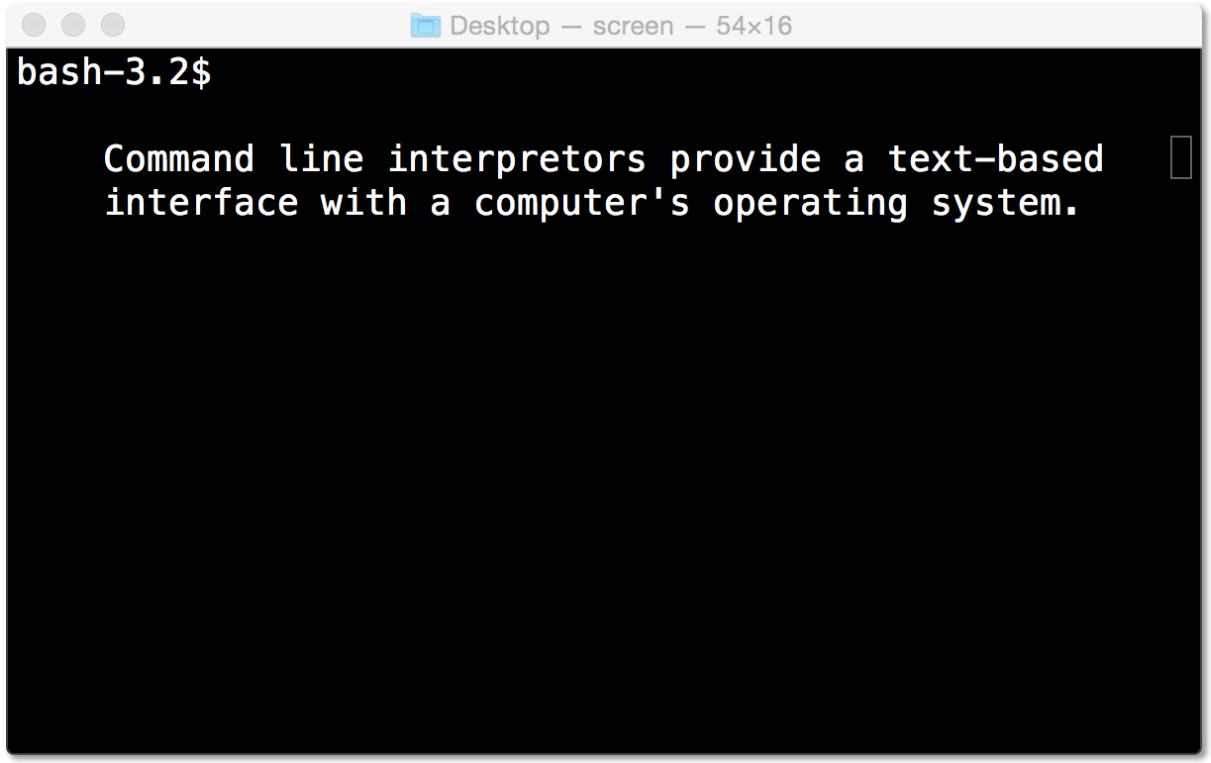
UNIX: an operating system built in C (Apple OS X and Linux are built on or derived from the UNIX operating system).

- UNIX commands/instructions can be run from a Linux or OS X terminal.
- Windows 10 can also run a Linux terminal but the shell must be downloaded (see Resources page).
- Powerful for text and file manipulation.

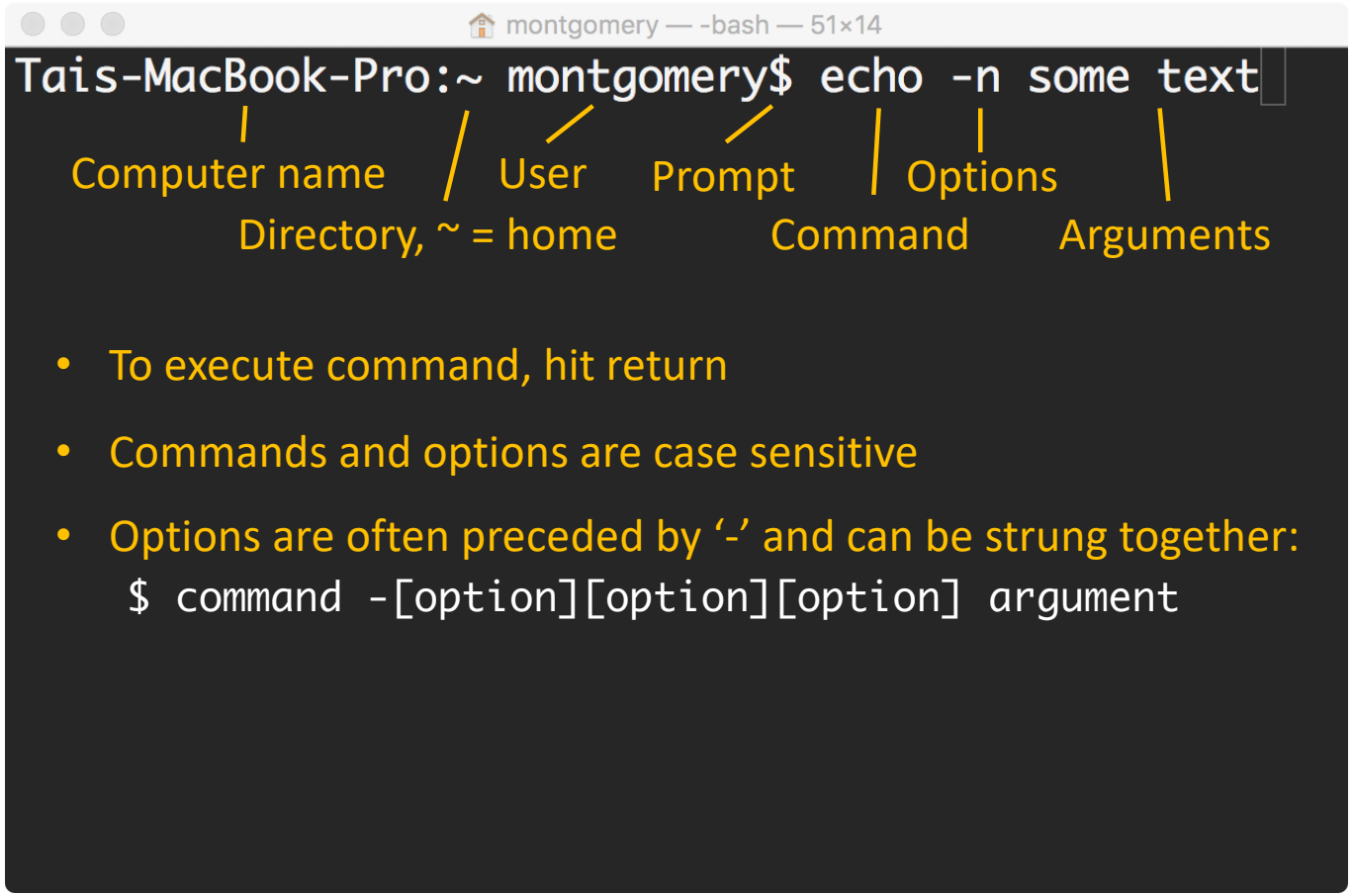


Command line interpreters

Bash and Z shell (Zsh) are commonly used Unix shells



Running commands



- To execute command, hit return
- Commands and options are case sensitive
- Options are often preceded by '-' and can be strung together:

```
$ command -[option][option][option] argument
```