

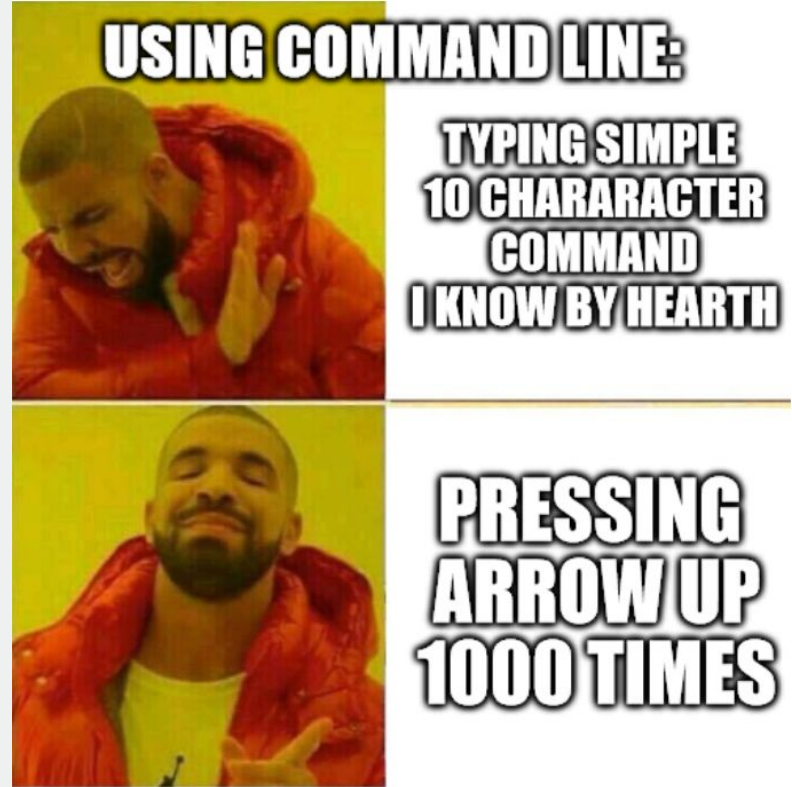


LAB #3

**Adv. CiC
Spring 2026**

Agenda

1. Housekeeping
2. Review: CLI
3. Review: Package Management
4. Git Workflow & Tips (cont.)
5. Lab 3 Exercise



Housekeeping

Due this past week

- Reading 3
- Lab 2
- Project proposal

*Let me know if any questions about **PR change requests!***

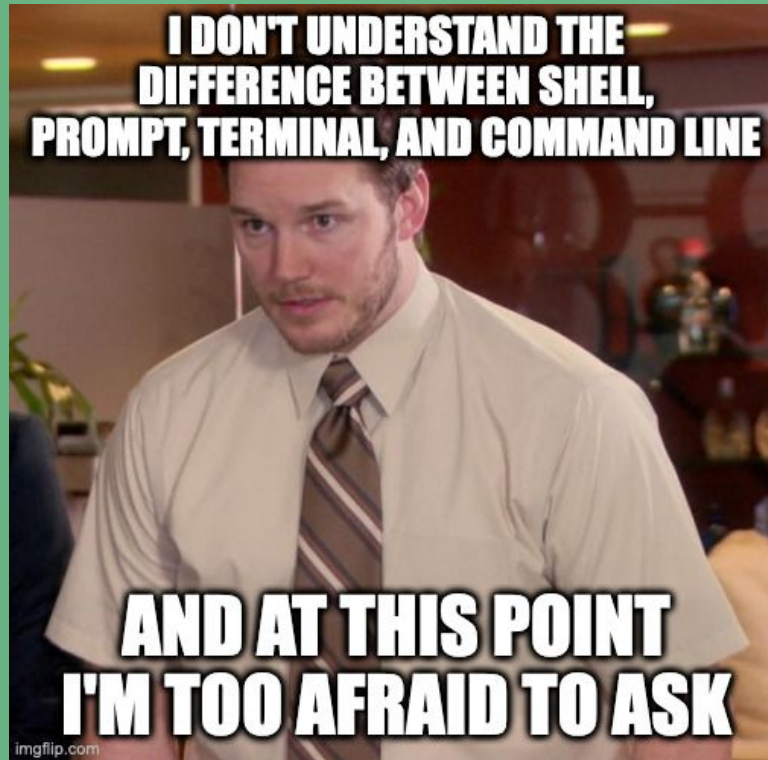
Proposals will get feedback on Monday.

Upcoming

1. Project pt. 2 - **2/19 @ 3pm**
2. Reading 4 - **2/12 @ 3pm**
3. Lab 3 - **2/13 @ 1pm**

Additional Resources

- Online tools
 - Google, ChatGPT, etc.
 - ***Make sure to review AI policy!***
- **ED!!!**
- Office hours
 - 1 hr/week set time
 - Appts by email



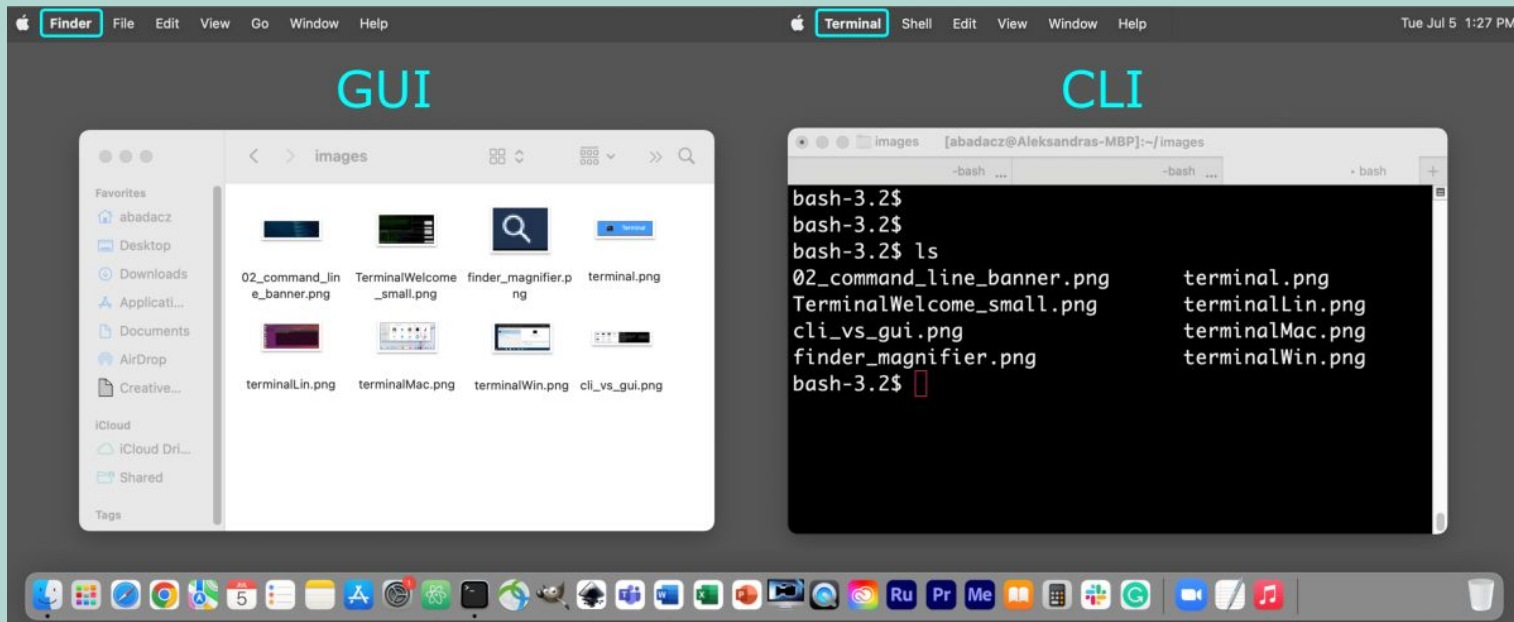
Questions
(on Lectures, Labs, or Readings)?



Review: CLI

What is a Command Line Interface (CLI)?

a text-based user interface used to interact with a computer's operating system or applications by typing in commands

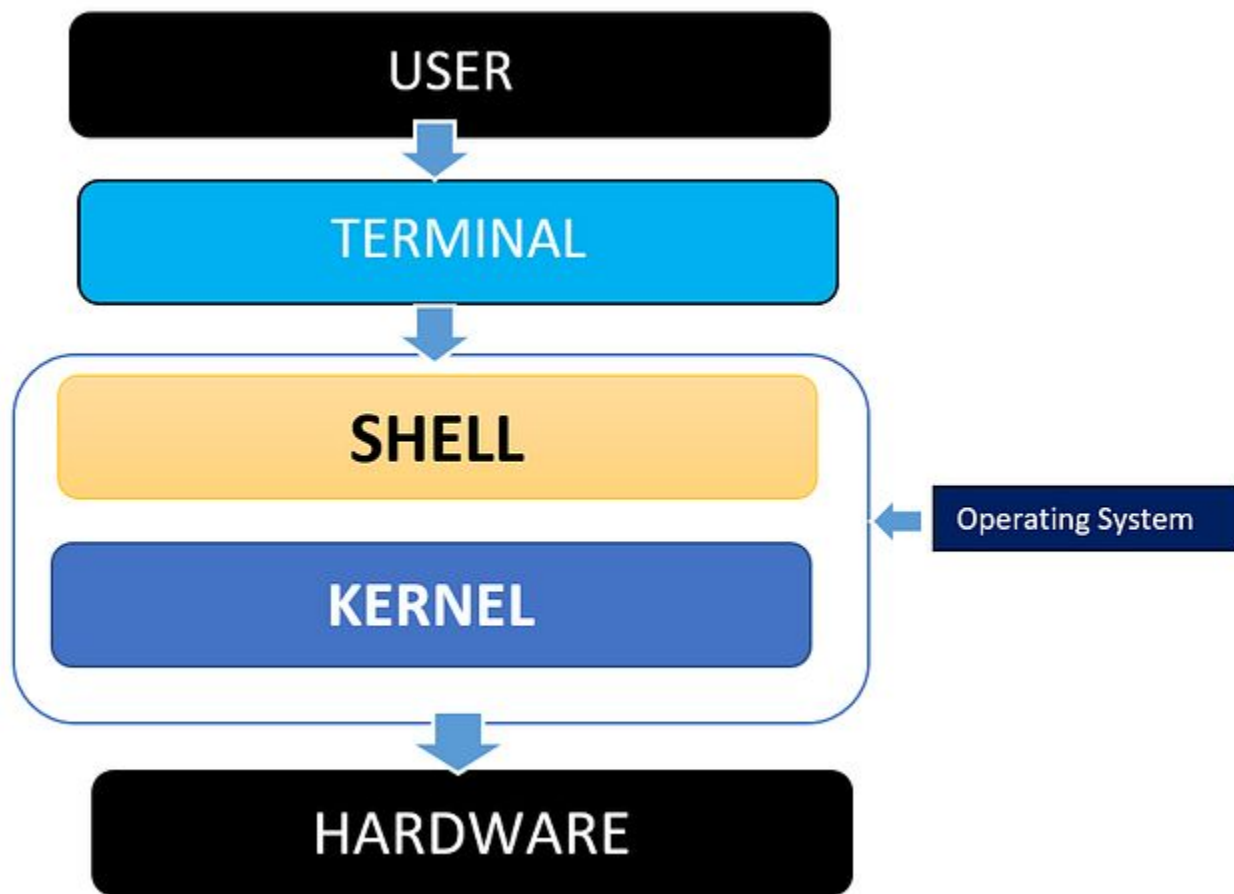


Graphical User Interface (GUI)

- **Visual**: buttons, menus, and icons make actions easy to discover
- **Beginner-friendly**: lowers the learning curve for common tasks

Command Line Interface (CLI)

- **Precise & fast**: direct commands give full control and speed
- **Powerful & scriptable**: enables automation and advanced workflows



1 2 3 4
ls -lRA ~/Documents > list.txt

1—Command Name

In this example the “ls” command displays a list of a folder’s contents.

2—Command Options

Options add conditions, limits, or other modifiers to the command.

3—Arguments

This is the recipient of the action, often specified as a file or folder path.

4—Extras

Redirected output, or other commands, as needed. In this example a text file is created from the list output.

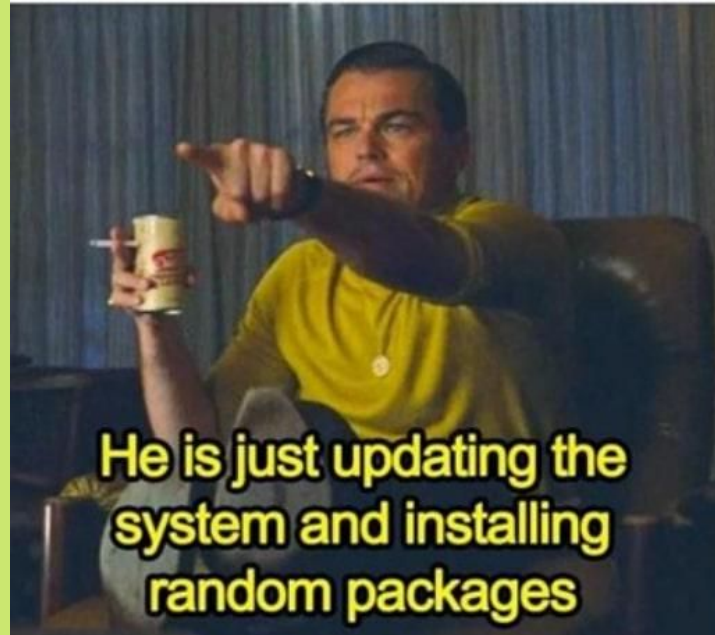


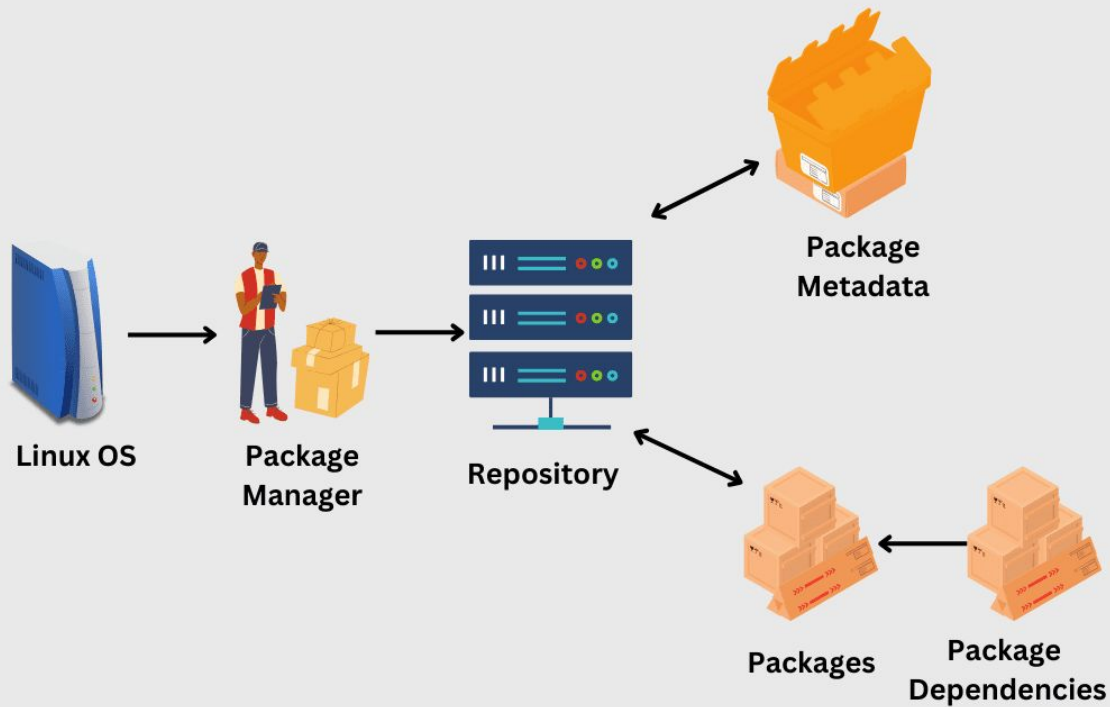
Review: Package Management

Package Management: WHY?

- **Organizes software dependencies:** keeps track of external tools & libraries that a project needs in one clear system
- **Simplifies setup and maintenance:** Installing, updating, and removing software becomes predictable and automated instead of manual & error-prone
- **Ensures consistency:** helps everyone run the same versions, so code works the same across computers and environments

When you're a programmer and see a hacking scene in a movie





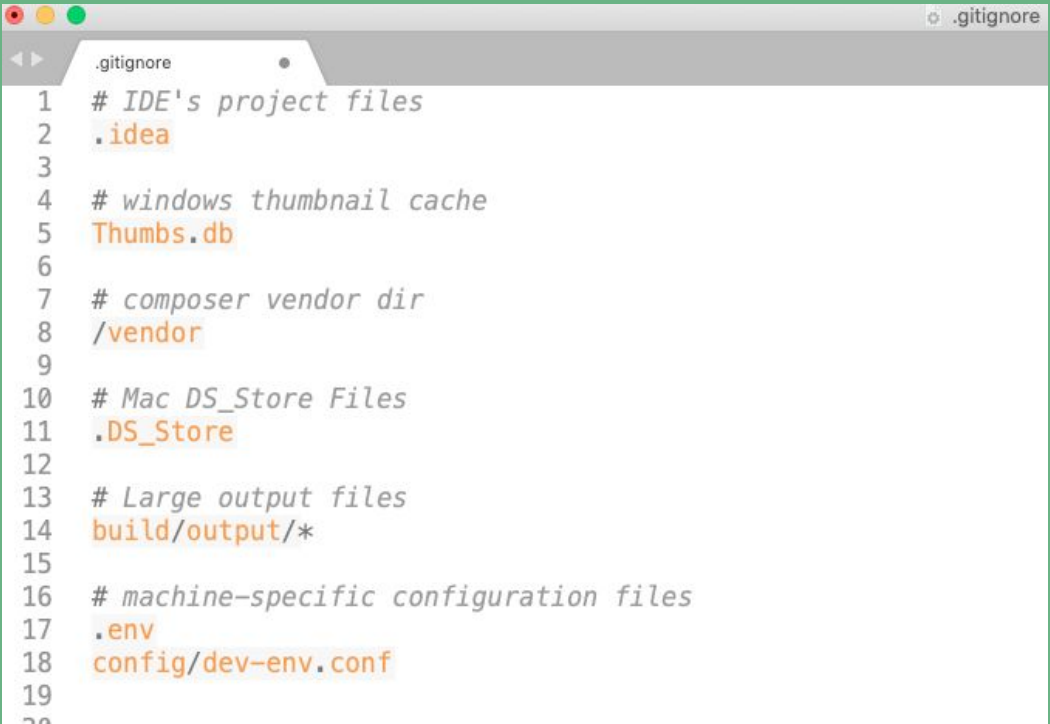
How Package Manager Works



Git Workflow & Tips (cont.)

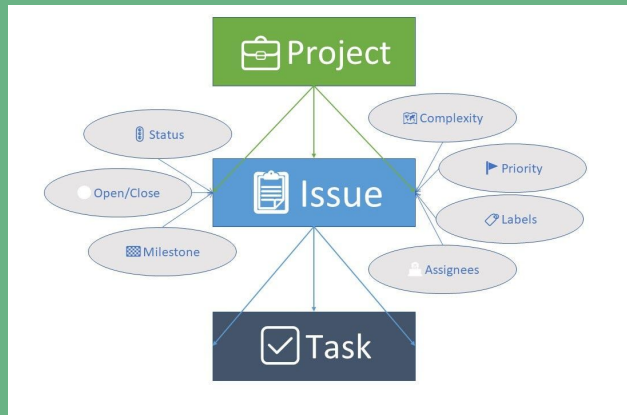
.gitignore

- A *.gitignore* file tells Git which files or folders it should ignore and not track
- **Keeps the repo clean and focused:** prevents unnecessary files (temp files, outputs, etc.) from being committed
- **Protects sensitive information:** helps avoid accidentally uploading secrets like API keys, passwords, or config files

A screenshot of a code editor window showing a .gitignore file. The window has a title bar with standard macOS window controls (red, yellow, green buttons) and a title ".gitignore". The code is as follows:

```
1  # IDE's project files
2  .idea
3
4  # windows thumbnail cache
5  Thumbs.db
6
7  # composer vendor dir
8  /vendor
9
10 # Mac DS_Store Files
11 .DS_Store
12
13 # Large output files
14 build/output/*
15
16 # machine-specific configuration files
17 .env
18 config/dev-env.conf
19
20
```

GitHub Issues



angular / angular

Watch 3.2k Star 70.5k Fork 18.5k

Code Issues 2.5k Pull requests 292 Actions Projects 6 Security Insights

Filters is:issue is:open Labels 204 Milestones 10 New issue

2,452 Open 19,744 Closed

Author Label Projects Milestones Assignee Sort

- Create a "Directives Overview" or similar topic P3 comp: docs feature #40755 opened 2 hours ago by aikidave Backlog
- Make FormArray's inability to be treated as a regular Array more prominent in the docs comp: docs comp: docs/api comp: forms #40753 opened 6 hours ago by ychaikin needsTriage
- bug(cdk-drag-drop): :enter / :leave animations are triggered incorrectly comp: animations #40752 opened 9 hours ago by udos86 needsTriage
- The structural directive type check docs section is incomplete comp: docs #40739 opened 2 days ago by ArielGueta needsTriage
- Provide usage examples for APP_INITIALIZER token comp: docs hotlist: community-help #40730 opened 3 days ago by AndrewKushnir needsTriage
- More precise type for APP_INITIALIZER token comp: core cross-cutting: types feature flag: breaking change hotlist: community-help #40729 opened 3 days ago by AndrewKushnir Backlog

I PREFER GUIs

WHAT DOES THAT MEAN?

**IT MEANS
HE'S SCARED OF
THE COMMAND LINE.**

**IT
DOES NOT.**

**GIT BRANCH --MERGED |
EGREP -V "[^\]|MASTER|MAIN|DEV]"
| XARGS GIT BRANCH -D**

**STOP IT, PATRICK,
YOU'RE SCARING HIM!**

Why do programmers have a hard time forming meaningful relationships?

They have code dependency issues!



**When the only search result for your
problem is a GitHub issue that has
been open for 4 years**





EXERCISE

Lfg