

# **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!*

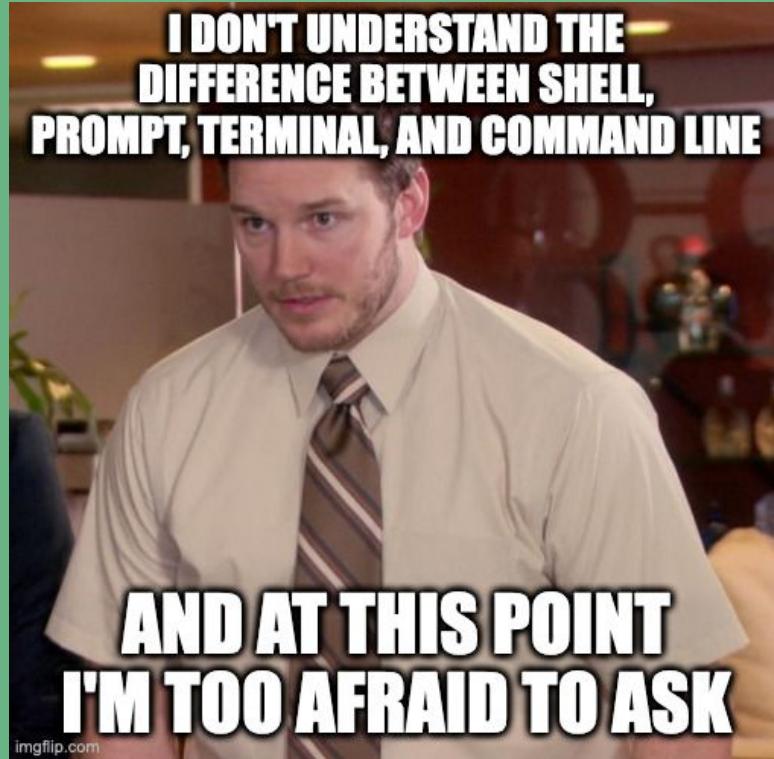
*Proposals will get  
feedback on Monday.*

## 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

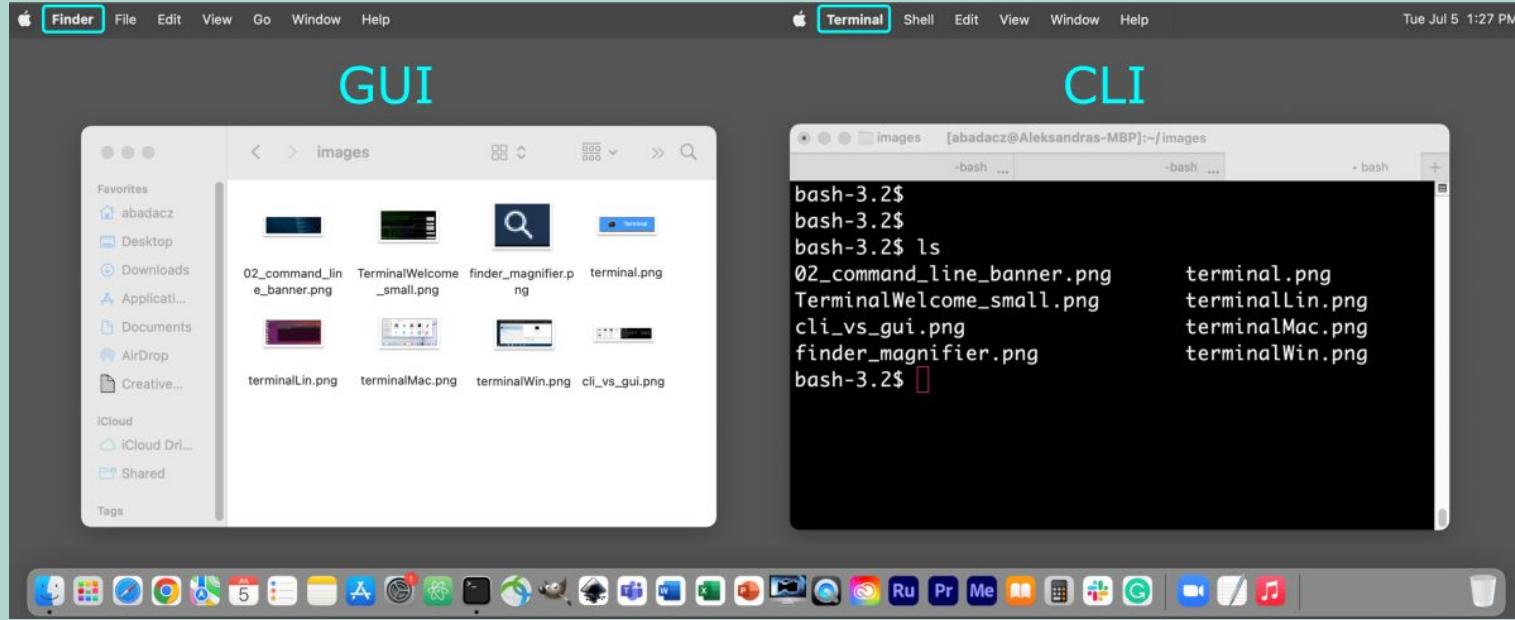


Questions  
*(on Lectures, Labs, or Readings)?*

# 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

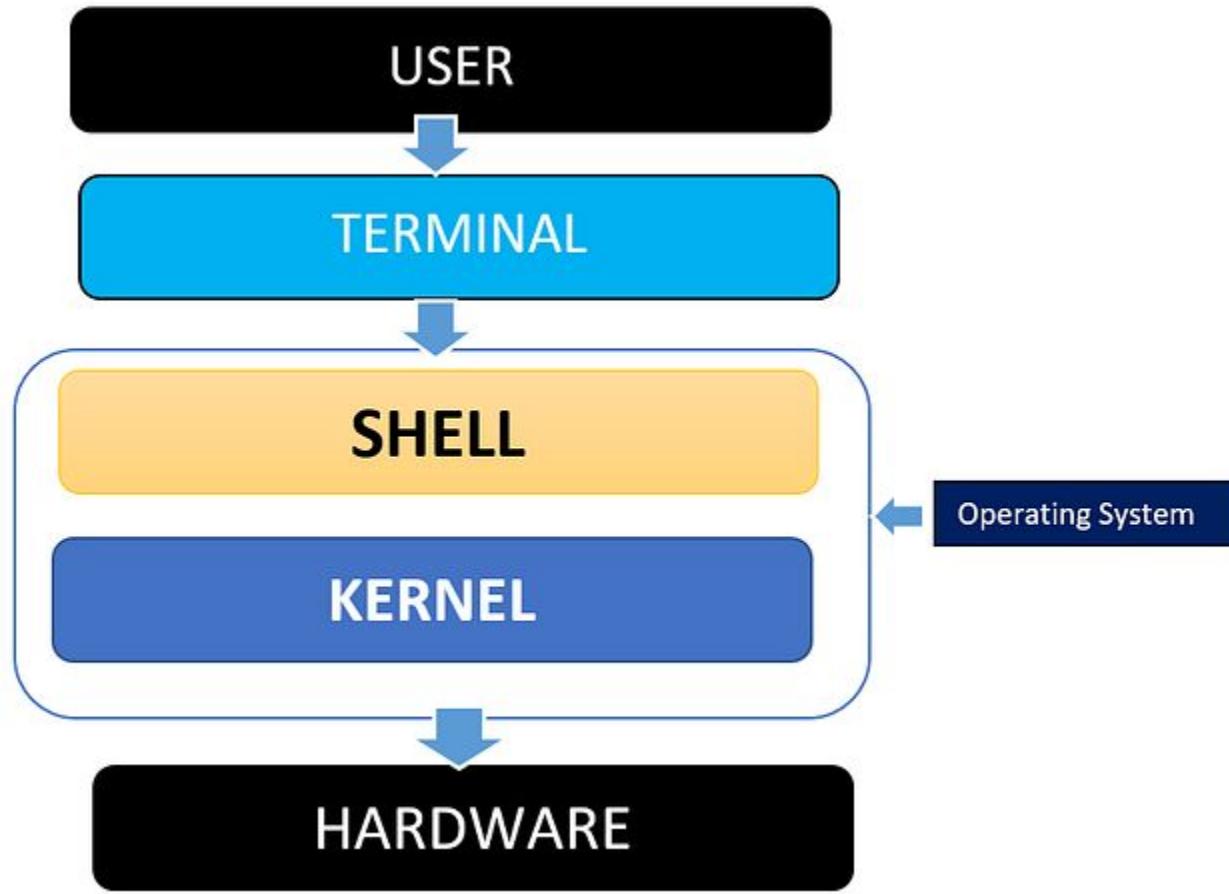


## Graphical User Interface (GUI)

- **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 – 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

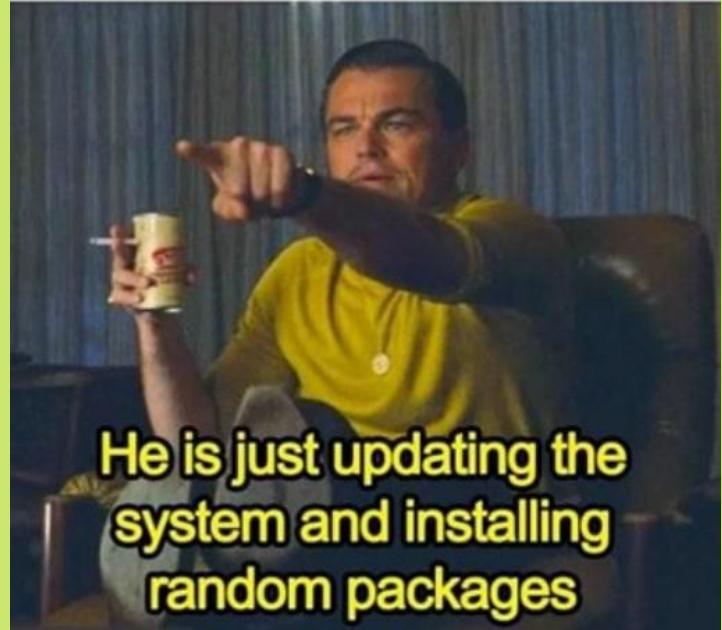
Redirected output, or other commands, as needed. In this example a text file is created from the list output.

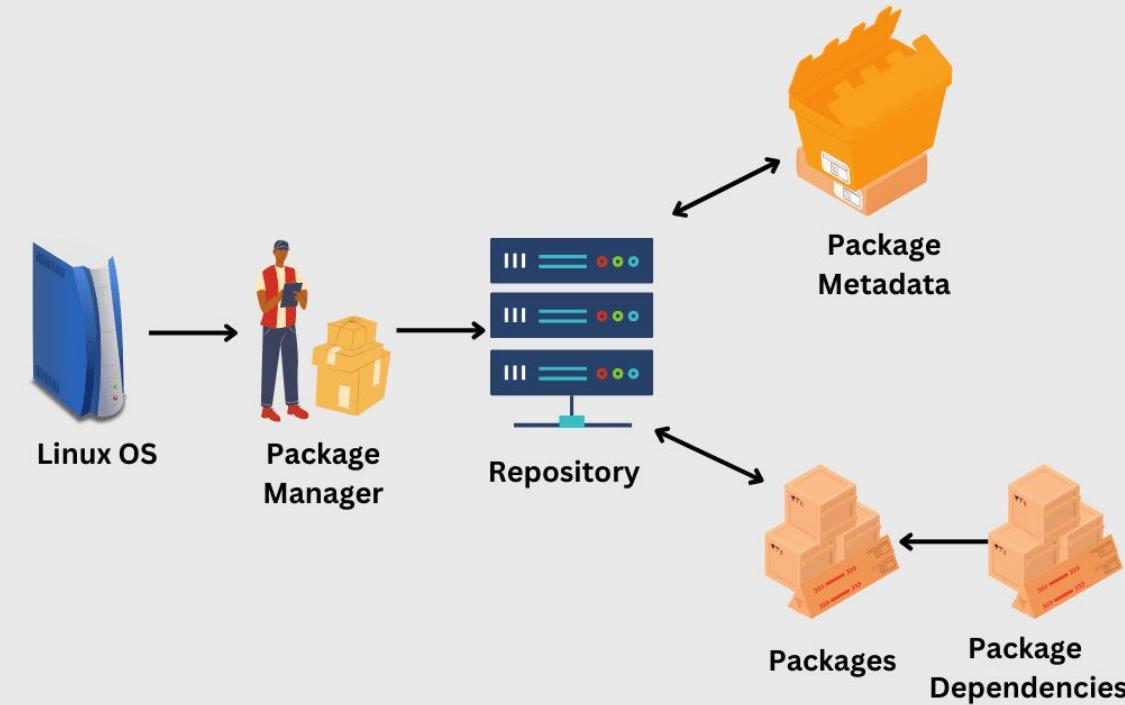
# **Review: Package Management**

# 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

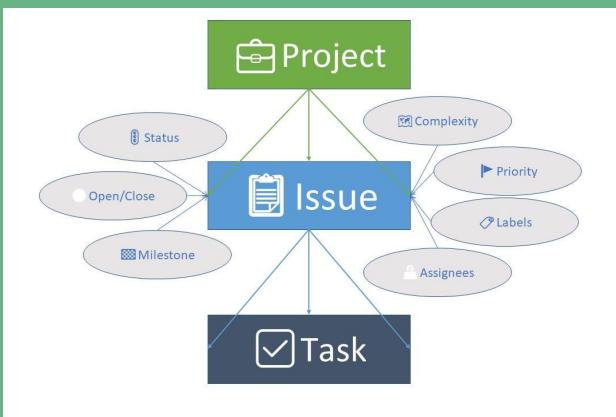
- A `.gitignore` file tells Git which files or folders it should ignore and not track
- **Keeps the repo clean and focused:** prevents unnecessary files (temp files, outputs, etc.) from being committed
- **Protects sensitive information:** helps avoid accidentally uploading secrets like API keys, passwords,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



A screenshot of a Mac OS X TextEdit window displaying a `.gitignore` file. The window title bar says ".gitignore". The file content 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 GUI'S

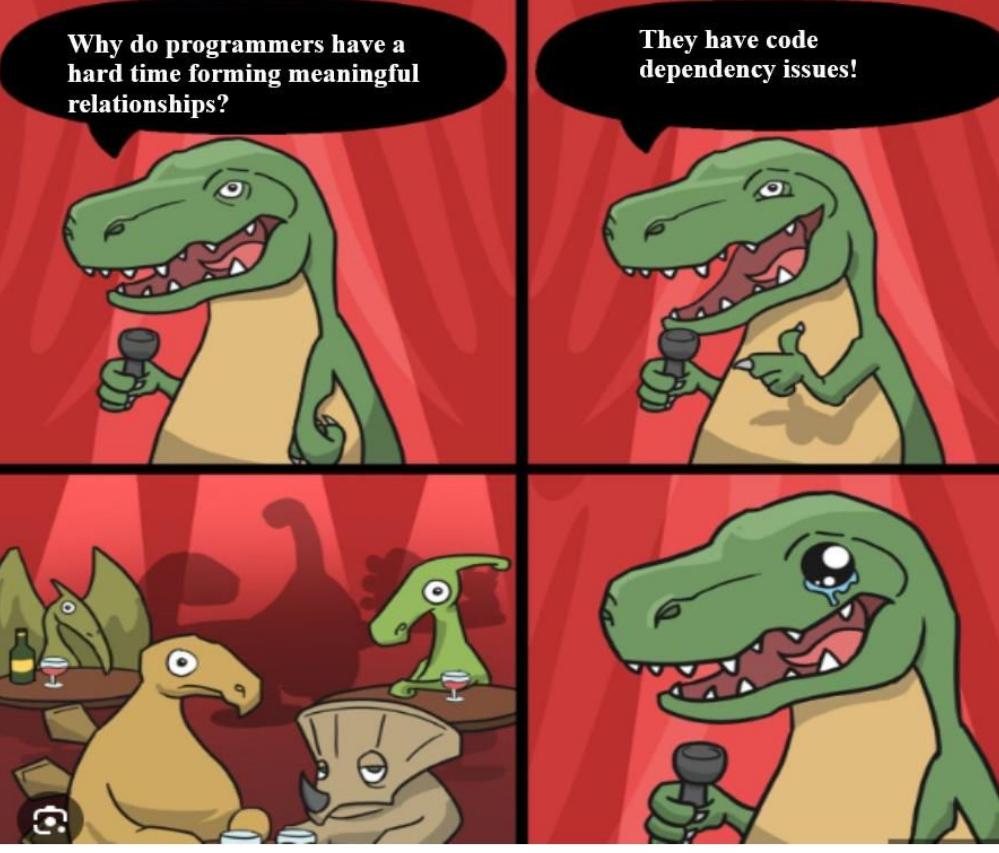
# WHAT DOES THAT MEAN?

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**





**EXERCIS**

**E**

**Lfg**