

Git & GitHub

Efficient Code Management
with Version Control

Module Content

Understanding Version Management/
Version Control

Getting Started with Git
Repositories, Branches, Commits & More

Collaborating in Git Projects with GitHub
Remote Repositories, Clone, Pull Requests & More

What is Version Management/Control?



Efficient **Control & tracking** of
code changes* over time

What are Git & GitHub?



Local tool installed on
your computer

Version control for web
development projects

Organized in “repositories”



Cloud hosting provider for
“Git repositories”

Collaboration in & contribution
to web development projects

The world’s largest
development platform



Human Computer Interaction

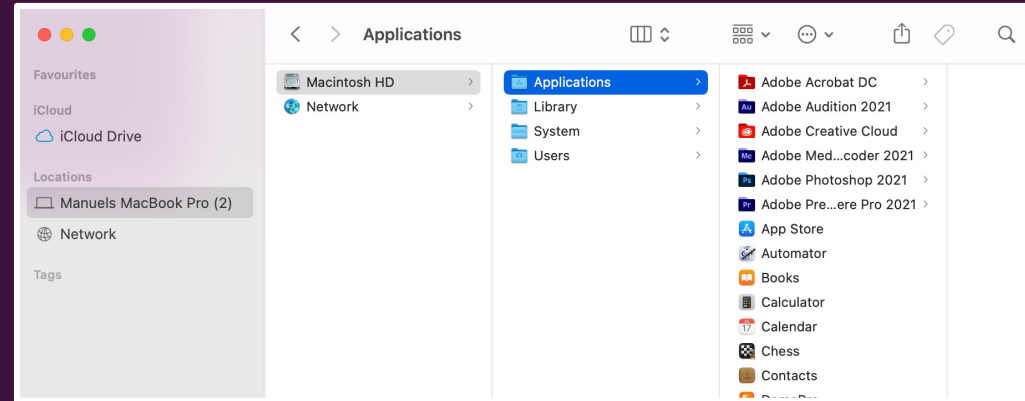


...?



GUI vs CLI

Graphical
User
Interface



VS

Command
Line
Interface

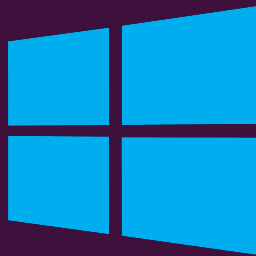
```
Applications -- zsh -- 80x24
mlorenz@Manuels-MBP-2 /Applications % ls
Adobe Acrobat DC      Microsoft Excel.app
Adobe Audition 2021   Microsoft OneNote.app
Adobe Creative Cloud  Microsoft Outlook.app
Adobe Media Encoder 2021 Microsoft PowerPoint.app
Adobe Photoshop 2021  Microsoft Teams.app
Adobe Premiere Pro 2021 Microsoft Word.app
DemoPro.app           Numbers.app
Discord.app           OBS.app
Dropbox.app           OneDrive.app
Elmedia Video Player.app Pages.app
Final Cut Pro Trial.app Safari.app
GarageBand.app        Slack.app
Google Chrome.app     Spotify.app
HP                    Typora.app
HP Easy Scan.app      Utilities
Hewlett-Packard       Visual Studio Code.app
Keynote.app           iMovie.app
Ledger Live.app       zoom.us.app
```

Fastest and most common
way to efficiently work
with Git & GitHub

Which CLIs are we using?



Terminal (z Shell)



Command Prompt (cmd)

Alternative: PowerShell

Git Basics - Theory



Repository
All tracked files and folders

Working Directory
Current project folder

Commit
Code snapshot

Branch
Where commits are stored



"added image"

main/master

"fixed order button"

feature

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Why We Use GitHub



Cloud Storage

Portfolio Page



Collaboration

Contribution

Module Summary

`git init`

`git add`

`git commit`

`git branch`

`git checkout -b`



Version management

`git remote add origin`

`git push`

`git pull`

`git clone`

Personal access token



Repository hosting